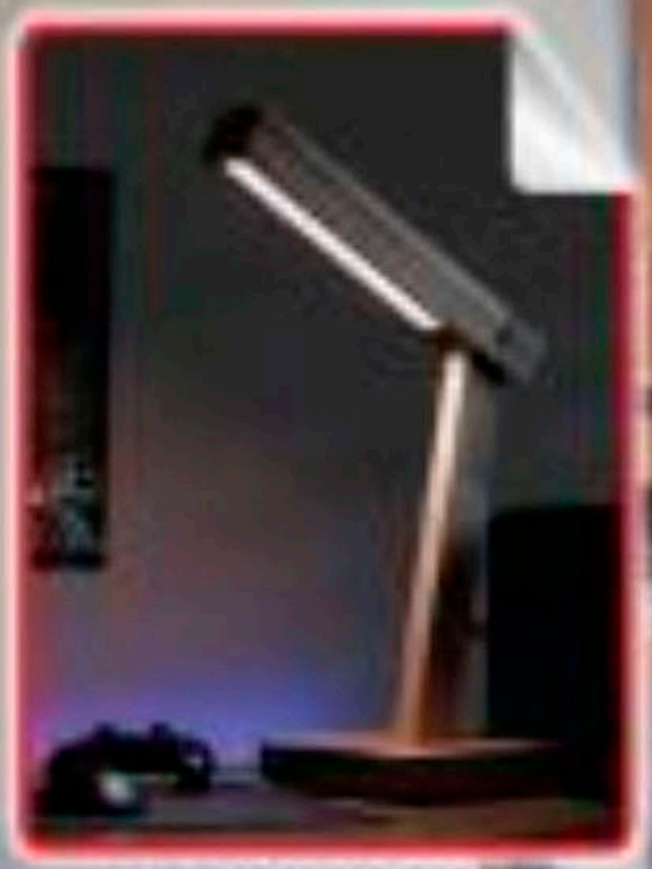
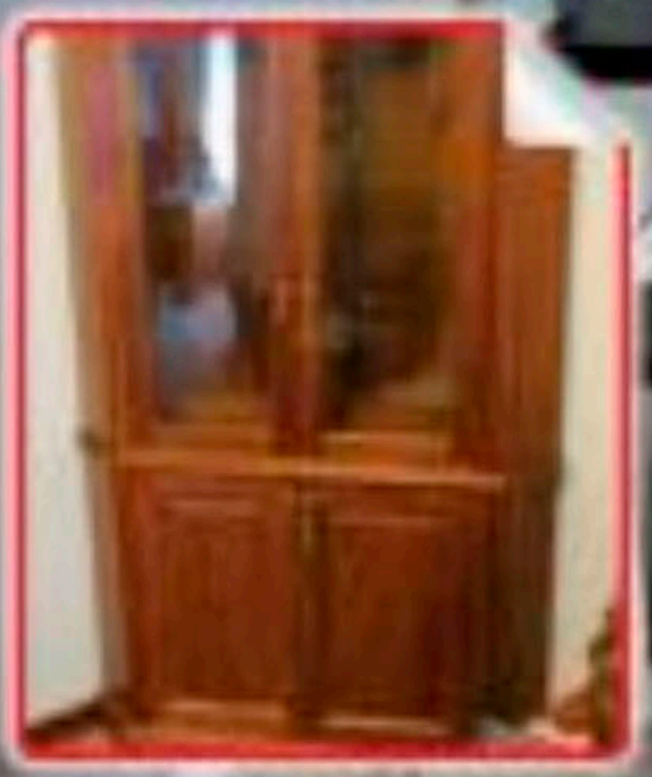
The Home

HANDYMAN

July/August 2021 • Vol 31 No 7



EASY TO MAKE DESK LAMP



LEARN HOW TO BUILD THIS CORNER CABINET

The paint issue

- Secrets the pros won't tell you
- Expert DIY advice on how to paint tiles
- Forget white – 9 colours to paint ceilings

+plus

- Make a pet dish holder
- Step-by-step flat roof waterproofing
- Make a metalwork wine bottle holder
- 5 easy ways to update your kitchen's look and feel
- All you need to know about screws, nails, nuts and bolts

Woodworking, metalworking, do-it-yourself projects and expert advice

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  - Soldering iron – Temperature: 200-400°C
  - Heat gun – Temperature: up to 400°C
  - Torch – Temperature: up to 1 300°C

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- Ideal for maintenance work

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SW8

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Code	Sizes (mm)	Head (mm)	Overall Length (mm)
SW8			

LIFETIME WARRANTY

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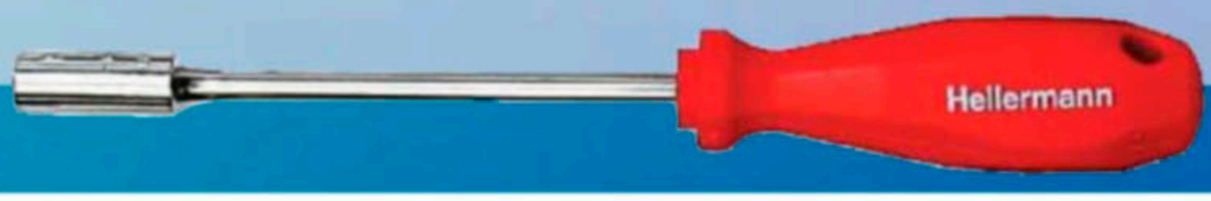

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The importance of consistency

In DIY – as in life – consistency is a key component of attaining successful results. People relish consistency. It is why they are happy to buy a McDonalds Big Mac in Johannesburg, Jakarta or Jerusalem, safe in the knowledge that it will taste the same every time.

David Webster, a 71-year-old Californian native, showed staggering consistency in his personal life. For 40 years, he grabbed his surfboard and hit the waves every single day.

Webster's daily surf sessions started in 1975 after he surfed a big swell in northern California for a week straight. After the big swell dissipated, he was hooked. He continued to paddle out every single day, catching a minimum of three swells. "It started out as a streak, went into a quest, and now it's some sort of mission," he said. "I don't really know what the mission is, but the only worthwhile thing in life is to ride it until the end and find out the meaning of it all."

Over the years, he surfed through a flu, a sprain, dangerous winds, and even a kidney stone (he went directly to the hospital from the beach, with his wife's help). The second kidney stone, however, was the last straw and Webster chose not to go surfing for the first time in four decades. Instead, he threw a party with his friends to celebrate his first day out of the water.

For 40 years, however, Webster was single-minded in his goal. It didn't matter what the weather was like or how he felt, he still got up, got out and surfed his three waves. "I was on an honour system. I could've only caught one wave and no-one would have known. But there was honour in it. I didn't want to be a liar and be admired. I actually wanted to have done what I said I would do."

We could all learn to be more consistent in many areas of our lives – regular exercise, eating healthy food, and getting enough sleep and downtime, when done consistently over time, will lead to a longer, happier life. In the workshop or when undertaking DIY tasks around the home you can also benefit from consistency; ensuring you follow the same safety practices, whether building a bunk bed or hanging a picture frame, will guarantee successful projects, carried out safely. Time and again, cleaning your tools after use and packing them away safely in the same spot when you are done with them (so you know exactly where they are), will save you time when starting your next project, and will keep your tools performing better for longer.

In summary, try bring some extra consistency to every area of your life. As John C Maxwell said, "You will never change your life until you change something you do daily. The secret of your success is found in your daily routine."

Gregg

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www.homehandyman.co.za

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The Home Handyman magazine is a specialized D.I.Y. publication and caters for a well-defined niche market since November 1993. The magazine equips its ever-growing readership with relevant D.I.Y. information, knowledge and skills.

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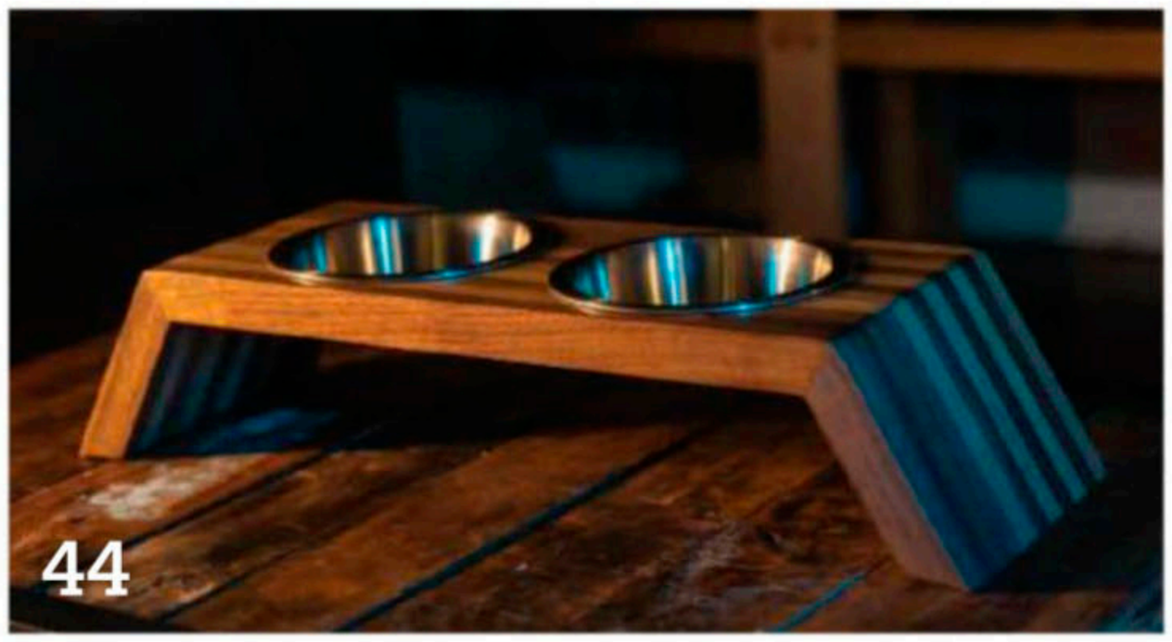
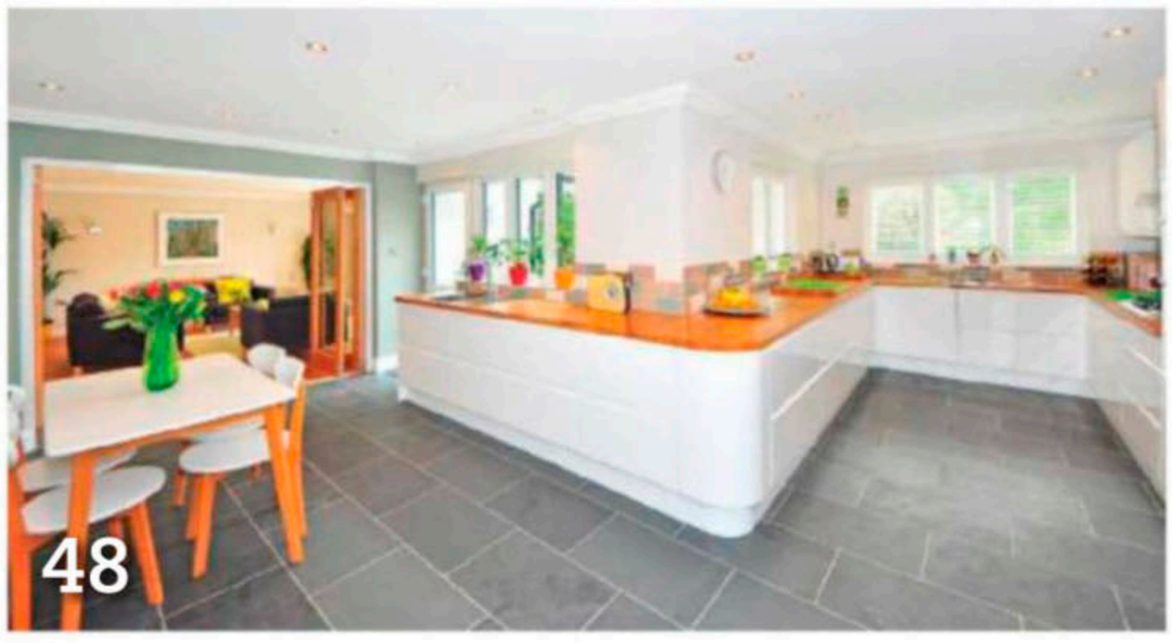




Competitions & giveaways

OFF THE SHELF

Your guide to the latest products in the world of DIY

Exciting new tool range available

Brights Hardware Stores has good news for DIY enthusiasts, or those just starting to build their tools collection, as they are launching an exciting new range of tools at an affordable price

Available at Brights Hardware stores, the Total Tools range is extensive – with 252 items listed in the Brights catalogue – and includes everything from generators to paint accessories, garden tools, safety products, and automotive equipment, to a huge range of hand tools – including screw drivers, pliers, hammers, wrenches, sockets sets, tool chests etc., – as well as drill bits, jigsaw blades, cutting disks, utility knives, and measuring tapes – you name it, the Total Range has got it.

"This range is budget friendly for South African consumers and offers good quality products that have been well thought out," explains Orlando Luis, CEO of Brights Hardware. "As an example of the foresight put into this range, for people who might have just purchased their first home or are just starting to buy tools, the Total Tools range offers a great 29-piece Household Toolset which comes in a stackable box and includes an adjustable wrench, combination pliers, measuring tape and interchangeable screwdriver – perfect as a DIY starter kit."

Brights currently stocks the full range of Total hand tools and accessories, and from mid-2021 will also be selling the Total power tools.

"We are incredibly pleased to be stocking the Total Tools range in our stores and the cost-effectiveness of the products means that cash strapped South Africans can now afford to add much needed tools to their arsenal. More people are tackling DIY than ever before in a bid to save money wherever possible, and so the necessary tools and equipment are required to make this possible. Added to this, lockdown forced people to spend more time in their homes, which led many South Africans to embark on renovations, upkeep, and upgrades on their living spaces. The Total Tools range means you can purchase more for your money and tackle additional DIY projects around the home," says Luis.

The Total Tools range is not the only imported range of high-quality tools at affordable prices that Brights has sourced and stocked for their clientele. Brights also stocks the competitively priced Stallion range of tools, which features a more industrial range of products such as welders, magnetic drills and accessories, lifting equipment as well as toolkits – perfect for contractors and those in the trade.

"We are committed to sourcing and providing our customers with perfectly priced tools that don't compromise on quality," says Luis.

For more information, visit www.brights.co.za

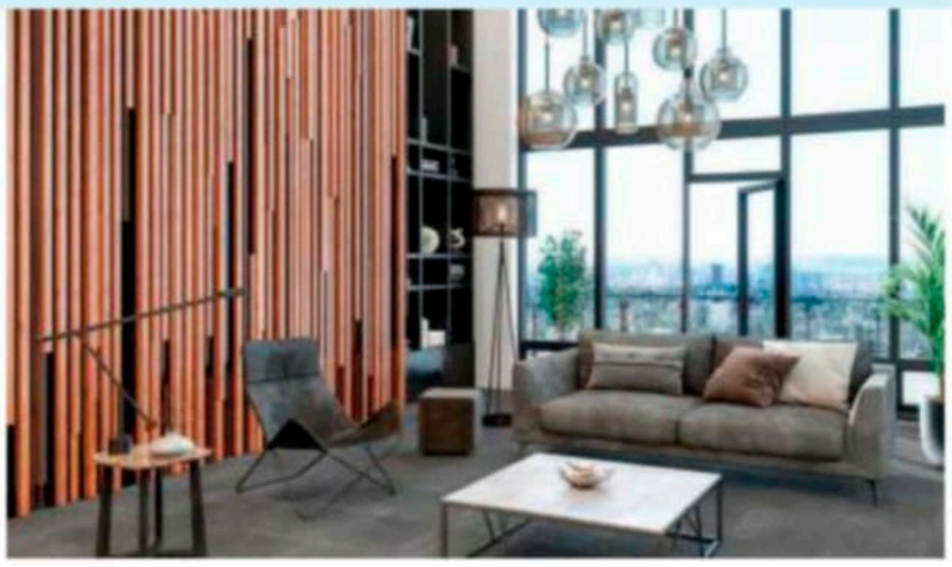
Fab new tiles

Cement-look floors are always on trend, and add edge to the ever-popular industrial and minimalist interior design palettes

Italtile's cement and screed portfolio never stops growing, and the company is excited to unpack the new Avenue range, which is a spectacular local remastering of textured cement flooring. The F.A.B. (features, advantages and benefits) include many plus factors:

- Three authentic mid-tone colourways (Charcoal, Grey, White)
- Versatile, durable and budget-friendly
- A LiveGreen choice manufactured using EcoTec
- You can try it before you buy it with Italtiles new uView

For more information, call 011-027-7900 or visit www.italtile.co.za



Affordable professional HVLP spray gun options

A full range of spray guns, compressors, accessories, hoses for the home workshop and professionals, the two most popular being the SG H827 and the SG AB17G

AirCraft is a well-established brand in South Africa, specialising in pneumatic systems, air tools and spray guns, catering for pneumatic solutions for both the DIY'ers, handyman and the professional tradesman.

The SG H827 HVLP Spray Gun is an all-rounder, good for many projects used across all industries, it comes with spare nozzles a 1.4mm, 1.7mm, and 2.0mm, making this unit the most versatile gun for any job. The cup capacity is 600ml, maximum air pressure is 10 bars (145psi), Air inlet ¼" BSP, working pressure: 43-58psi (3-5 Bar), Air consumption rate: 6.0-11cfm (170-300 l/min) comes with hanging hook.

The optional AirCraft SG AB17G is a professional finishing gun that comes standard with 1.4mm stainless needle and nozzle, plus spare 1.7mm nozzle, a 600ml plastic cup, 3-4 bar working pressure, and gravity feed gun.

"The AirCraft brand is especially well known among air tool end-users. For the excellent service backup ensuring peace of mind to all retailers and customers," says Ryan Hunt, Director Vermont Sales. "The range extensively covers pneumatic solutions offering a complete solution to the market and the workplace. What really works for this brand is our comprehensive range, our parts back up our full service, countrywide dealer network, and a great selection of accessories. Also available is our free Air Tool Training course for all our customers, which covers all you need to know about the products, setting up your workshop, features, pneumatic systems, and spray guns," says Hunt.

For more information, call 011-314-7711 or visit www.vermontsales.co.za

ASK FOR IT BY NAME

Make sure these quality sealants are in your toolbox, must haves for both bonding and sealing jobs.

Den Braven High Tack is a high strength adhesive, capable of holding weights vertically of up to 20 kilograms, instantly. Ideal for bonding many different materials such as metal to wood and stone to concrete.

Den Braven Hybrilfex-540 is a must-have to bond and seal expansion joints. Use on wood, natural stone, asbestos, enameled surfaces, steel and aluminium. Ideal to fill joints between brickwork, around window frames, indoors and out. It is highly resistant to ageing and weathering and available in white, beige, grey, and black

Den Braven Mirrorfix-MS is a unique high strength adhesive specifically formulated to use on mirrors. Remember to apply it in vertical strips and not blobs.

Application is easier when using a professional applicator gun.

Visit Den Braven South Sealants South Africa Facebook page for tips and application videos. Available from all good hardware stores.

VOICE YOUR VIEWS

Do you have any thoughts or comments on DIY issues?

Share your opinion

The Home HANDYMAN
www.homehandyman.co.za

Send us your views, ideas and opinions and you could win a power tool from Makita.

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Gezina, 0031

Please include your name, physical address and contact number (office hours)

Linda Marais

Wins a Makita MT M9204B Random Orbit Sander

Prizes are not exchangeable

Making bowls out of magazines (not *The Home Handyman* though!)

If you have old magazines piling up and taking up your precious space, get rid of them in an Eco-friendly way! With extra magazines and some time, you can turn them into various sized bowls (for fruit, mail, miscellaneous small items) for your home. My copies of *The Home Handyman* are too good to re-use though!

You'll need magazines, a hot glue gun, Modge (or other water-based sealant), a paintbrush and water-proof sealer. The size bowls that I made in the picture used approximately a full magazine each.

Before you can start gluing, you'll need to carefully tear the pages you want to use out of the magazine(s). On a hard surface fold each page lengthwise 3-4 times, putting pressure on the creases to make them stay tighter (I used the handle of scissors). Once you've folded a decent amount of pages, you can begin the bottom of the bowl, or the entire coaster.

To begin, take one folded page and using the hot glue gun, place glue along part of one side, rolling the paper on top of itself; it should be a circle (not necessarily a perfect one, but that gives it more character!). Leave a small end free, so the next strip can be glued underneath it, to continue the circle. Keep adding more pages in the same fashion until the circle is as large as you want for a coaster, or for the bottom of a bowl. Remember, the bottom of the bowl will be the smallest part of the bowl, the side will widen as it gets taller.

There should be a tail end of a magazine page waiting to be glued, and this is when you'll begin the wall to the bowl. Instead of gluing the strips directly on top of each other this time, you'll need to start gluing the strips three quarters of the way up the previous strip to begin the wall. Continue this method for the wall until the bowl is as large as you want it.

Once you're done, all that's left is sealing the bowl and letting them dry before using them! Since this project is made of paper, sealant is needed to harden and strengthen the bowl and coasters. Using the water-based sealant (Modge) and a paintbrush, generously cover the bowl to ensure that all parts of the paper are glued together and becoming sturdy.

Enjoy your new pieces, and be prepared for them to be a conversation starter!

Linda Marais, Modderfontein

Thank you

I was much surprised to be the winner of a set of Tork Craft wood turning chisels. Thanks so much. I have had a three-speed Eurasia wood lathe for 30 years, seldom used, now I am retired I have set it up and now have suitable size chisels to use with it. I have the copy attachment which I have never unpacked so winter project is to get it all up, assembled and running ready to turn loads of stuff!

I have mentioned before that I started selling and repairing Bosch power tools in 1968, long before battery tools were around! When moving to South Africa in 1977, I set up a Bosch Power Tool service centre in Springs and carried on with Bosch, but accepting other makes of tools for repair as well, a good way of comparing brands is from their insides. Then battery tools came along with NiCad batteries and now lithium-Ion batteries, more compact, longer lasting, and not self-discharging like the NiCads. Your expert's comment about the batteries decaying over a month ago is questionable. I own possibly 30 or more battery tools drills, saws, grinder, rotary hammer etc, to take three of my small battery drills one 10.8V model is 2007 and the other is 2012, the bigger one is 2017 all still running full out with their original batteries. I also found a while ago in a cupboard an ancient 1980 battery edge trimmer from Bosch and charged it up and it is now working again! That is a 40-year-old battery! Most of my battery drills are 6-years-old or older and still working, only some 1996 models gave up but I had the batteries repacked by specialists economically and they are fully operational again. Sometimes the repackers have higher milliamp cells and you get your battery back with more oomph than originally.

With regard to a reader's question in a previous issue of 'which drill to keep', the answer is definitely both. The Bosch PSB range of drill have single gearing giving a spindle speed of roughly 3000rpm. They originated as CSB models and the high speed was for driving the old-fashioned attachments like jigsaws, sanders, wood lathes, circular saws etc before consumers wanted self-powered more compact DIY tools. The high speed also lent the drill to be used with grinding heads, polishing tools, sanding discs and wire brushes. The high spindle speed is not always good for 12mm or larger drill bits drilling in thick steel, or holesaws; sure you can slow the drill down with the variable speed trigger but you are also reducing the motor cooling. Prolonged screw setting like roof screws can easily overheat your PSB drill and burn it out. The torque is too little at low speed and too high which burns the self-drilling screws. By comparison, my one 2007 10.8V battery drill is single speed and around 400rpm ideal for screwdriving with ¼ inch female spindle as it has an adjustable clutch which the PSB drills don't have.

My other 2012 10.8V is two speed 350/1300 with adjustable clutch and is really good for driving small and large screws and also drills well most materials with the 1300 rpm speed. My heavier 2017 14.4V drill is two speed 450/1700 of and on hammer action and clutch and is an excellent all-rounder for most jobs including hole sawing, although I still call on my old CSB high speed drills if doing lots of small pop rivet holes as it's faster, so both drill styles have their benefits. I would really advise Jean Pienaar to keep both as he will definitely regret ditching one when that 'different' job comes around where one or the other would be the more suitable drill.

Thanks again for the chisel set!

Bob Gillies, by email

Reader's projects

The Home HANDYMAN

www.homehandyman.co.za

Willing to share your latest project with our readers? Send a step-by-step write up of how to make the project, along with step-by-step photographs (at least 300kb) and a picture of the finished product.

Email projects and photographs to:

editorial@homehandyman.co.za

Our competitions – the fine print

Prizes may not be exchanged for cash. The closing date is stipulated by the competition box. If not stipulated, it closes on the last day of the issue. For example: Jan/Feb edition. All competitions close on the last day of February. To enter simply e-mail your answer to: editorial@homehandyman.co.za and include your name, surname, address and a day time contact telephone number with your entry. Unless otherwise stipulated, competitions are lucky draws and the correct entry drawn on the closing date will be the winner. The prize may differ from the picture shown. By entering this competition you agree to all rules and accept that the decision of the publisher is final and that no correspondence thereto will be entertained. This competition is open to all readers of *The Home Handyman* except employees of THH, BB Print and employees who work for the company that sponsors the prizes and their immediate families. Prizes not claimed within 60 days will be forfeited.

ACDC Dynamics and ACDC Express widen infrastructure on the East Rand

ACDC Express, a company owned by ACDC Dynamics has announced that in the first half 2021, they will be expanding their existing store in Longmeadow, Edenvale. The new infrastructure will consist of a new section offering a lighting floor and an expansion consisting of a wider range of solar, tools, security and more. Currently, ACDC Dynamics boasts 38 franchises nationally and the recently launched headquarters in Richmond Park, Cape Town.

In the words of Mario Maio, CEO of ACDC Dynamics, the company's Customer Days, "Are dedicated to appreciate our customers. As the leading manufacturer in electrical, electronics, solar, tools and pumps, we make products to make our customer's lives convenient and our Customer Day is dedicated to that reason."

ACDC Dynamics is known to make a series of products and solar is new in the lengthy list of such investments. With South Africa being faced with random power cuts, this is one of the many beneficial products the company manufacture. ACDC Dynamics would like to inform its customer that the company appreciate their patience and would love to introduce them to the new store that they love and trust.

The launching of the ACDC Express will be highly beneficial for customers as it will enable them to have experience an extraordinary retail experience with a wow factor.

For more information, visit www.acdc.co.za or call 010-202-3300

Plascon combats indoor pollution with brand-new air purifying technology

Plascon is changing the way that consumers experience paint. Plascon's premium interior paint, Double Velvet, has been a household name for many years and now, the leading coatings company has reinvented its iconic product – making it more than just a paint. A first for South Africa, the next generation Plascon Double Velvet Pure drastically improves indoor air quality by incorporating new air purifying technology to reduce harmful formaldehyde.

The formaldehyde abatement technology present in Plascon Double Velvet Pure absorbs formaldehyde particles emitted from fabrics, woods, building materials and furniture in the surrounding environment and by reacting with specific compounds present in the paint, irreversibly converts the formaldehyde compound into harmless water vapour that is safe for breathing.

Plascon Double Velvet has held the title of 'South Africa's preferred indoor paint' for many years and now, thanks to innovative engineering, this industry-leading product will offer customers even more benefits. Plascon has taken things one step further by adding pioneering formaldehyde abatement technology to Plascon Double Velvet Pure – the first on the South African market.

Formaldehyde is a Volatile Organic Compound (VOC) that is used as a binding agent in many composite building materials like chipboard, textiles and furniture, as well as several other household products such as cosmetics, detergents and pesticides. These items are most commonly found in home and office settings where people spend 90% of their time. Formaldehyde is released into the air from these household sources and, although it is not the only culprit, it is one of the major contributors to making indoor air five times more polluted than the air outside.

The reengineered premium product will retain all of its quality, strength and elegance as well as its existing technologies such as the Stain Barrier, Silver Protect and Breatheasy. Plascon Double Velvet Pure's unique Stain Barrier forms a multilayered protective coating that prevents dirt from penetrating the coating. The Breatheasy Technology contains zero VOCs, allowing the product to be virtually odourless and making it ideal for enclosed interior spaces. No emission VOCs mean cleaner, more breathable air. Plascon Double Velvet Pure is highly stain-resistant as it is reinforced with Silver Protect Technology, offering users a luxurious finish that is easy to maintain. This technology also inhibits mould and bacterial growth.

The reinvented Plascon Double Velvet Pure is the obvious choice for anyone who wants to put the wellness of their loved ones first whilst experiencing the premium, luxurious quality for which Plascon Double Velvet has always been known.

For more information, visit www.plascon.com

World's first single-family home made entirely of 3D-printed concrete

Saint-Gobain recently handed over the keys to the first residents in Eindhoven - the Netherlands - of the first house made entirely of 3D-printed concrete.

Saint-Gobain, through its Dutch branch Saint-Gobain Weber Beamix has developed special high-tech mortars for use in 3D printing and elaborated the printing technology with Witteveen + Bos, a consulting and engineering company. Other partners in this project are the construction company Van Wijnen, the institutional investor Vesteda, the Eindhoven University of Technology and the municipality of Eindhoven.

"Saint-Gobain 3D printing enables more efficient and sustainable construction. These printed houses use less material, and can be built much faster, with more flexibility and customised and renewed designs. The acceleration of this technology opens up new possibilities for construction," explains Bas Huysmans, CEO of Weber Benelux.

The construction method

The large boulder shape of the house nicely demonstrates the freedom of form that is offered by 3D concrete printing. The 94m² house consists of 24 printed concrete elements, which are printed layer by layer in the printing plant in Eindhoven. The elements were transported by truck to the building site and placed on a foundation. The house was then provided with a roof and frames, and the finishing touches applied. Thanks to the performant insulation, the house is very energy efficient and provides greater comfort for its occupants.

This house is part of a program of five houses that will be built one after the other, so that each new construction can be optimised by learning from the previous ones. Saint-Gobain designs, manufactures and distributes materials and solutions for the construction, mobility, healthcare and other industrial application markets. Developed through a continuous innovation process, they can be found everywhere in our living places and daily life, providing wellbeing, performance and safety, while addressing the challenges of sustainable construction, resource efficiency and the fight against climate change.

For more information, visit www.3dprintedhouse.nl/en/

Every room in your house has a ceiling, however, they are generally one of the most neglected parts of the home.

LOOKING UP

Think of the ceiling as the fifth wall of your room. Instead of going straight for the white paint, have fun with the ceiling colour and dramatically change the vibe of the space. The possibilities are endless!

But what colours work best, and which ones will overwhelm the space?

Colour is always subjective of course, so don't get too hung up on the rules. Here is what design and paint experts from around the world had to say about picking the best ceiling colour for any room.

Get cosy with dark colours: to Rob Abrahams of Coat Paints, you shouldn't be afraid of a dark ceiling, especially in a bedroom. "Choosing a dark colour for the walls, like navy or even black, can soften the space," Abrahams says. "Dark colours absorb light and dull the edges of the room, making it feel softer and relaxing. Kind of like a cosy cave. Take that dark colour up onto the ceiling, too, and you'll maximize that cave feeling, which can help with a restful night's sleep."

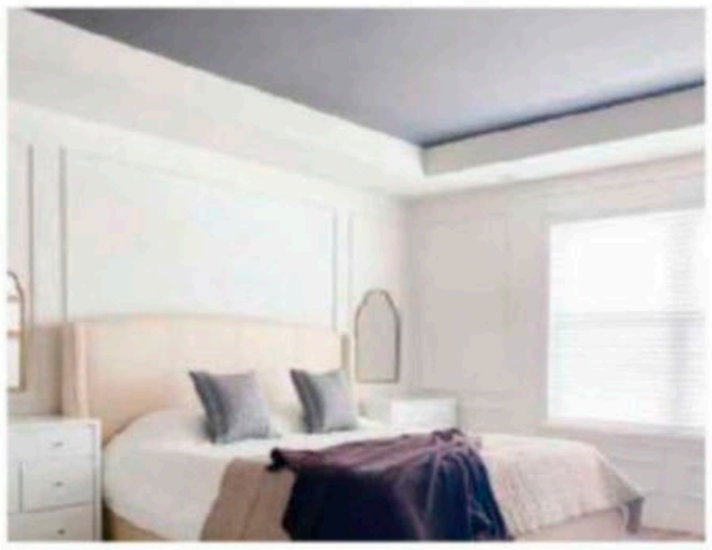
Check the light reflective value: The amount of natural light a room receives can drastically effect the look of paint colour on the walls and ceiling. Heather Prestanski of Comfortable Dwelling says when choosing a ceiling colour, pay attention to the paint's light reflective value (LRV), which is the amount of light it reflects. "A colour on the ceiling that is the same value (as in they both have the same or similar LRV) will expand the ceiling, making it feel taller," she says. "LRV is a number between 0 and 100. You can find this number on the back of most paint chips."

Go for a flat finish: No matter what colour you choose, most experts recommend a flat finish for your ceiling. "Typically ceilings are done in a flat finish because they do not get exposed to the handling that walls get," says Karen Gray-Plaisted of Design Solutions. By handling, she means hand prints and dog slobber that needs to be washed off walls. Therefore, a washable finish is best. Plus, a flat- or matte-finish ceiling doesn't draw too much attention. A high-sheen paint, however, will draw the eye up and distract from the rest of the room.

What colour to paint your ceiling

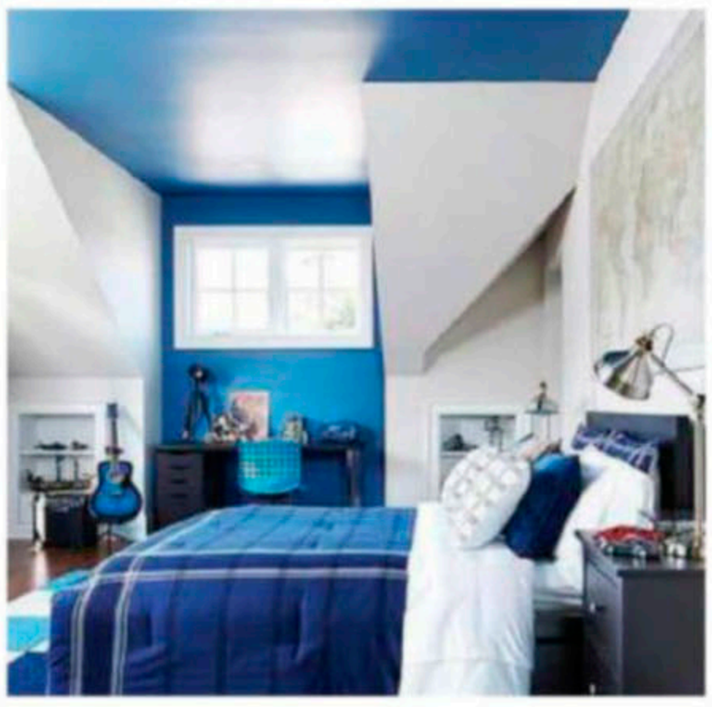
Dark Grey

The dark grey paint used in this bedroom brings down the height of the tray ceiling, making the room feel cosier. Just like you would for the walls, look for other elements in the room to inspire your ceiling colour. As shown here, the grey ceiling nicely mimics the greys in the rug.



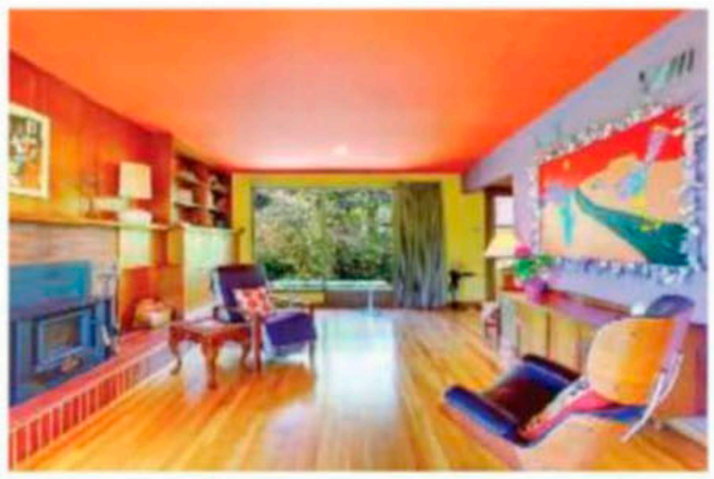
Royal Blue

This room proves that bold is beautiful! Painting all four walls and the ceiling in this colour might have been too much. But by limiting the blue paint to the ceiling and the window section of one wall, the space is vibrant and exciting without overwhelming.



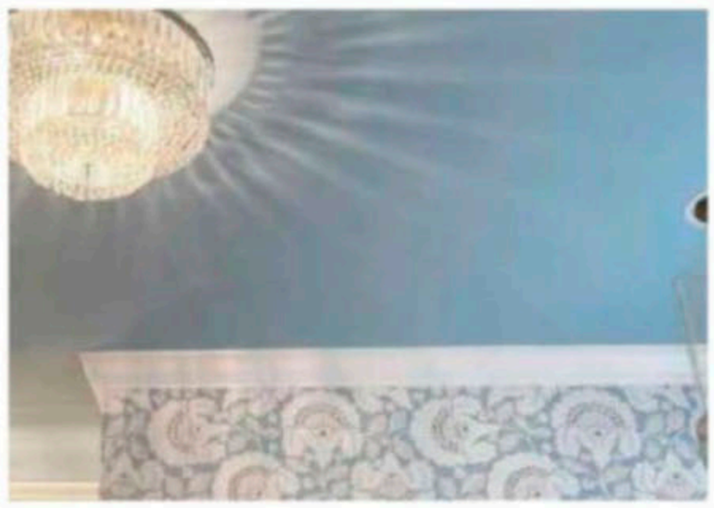
Burnt Orange

The burnt orange in this boho living room is an unexpected twist that elevates the whole space. When painting the ceiling a daring colour, consider painting the upper part of your walls as well for a striking border effect. Keep in mind it will make your ceilings look lower, so make sure that's the look you're going for.



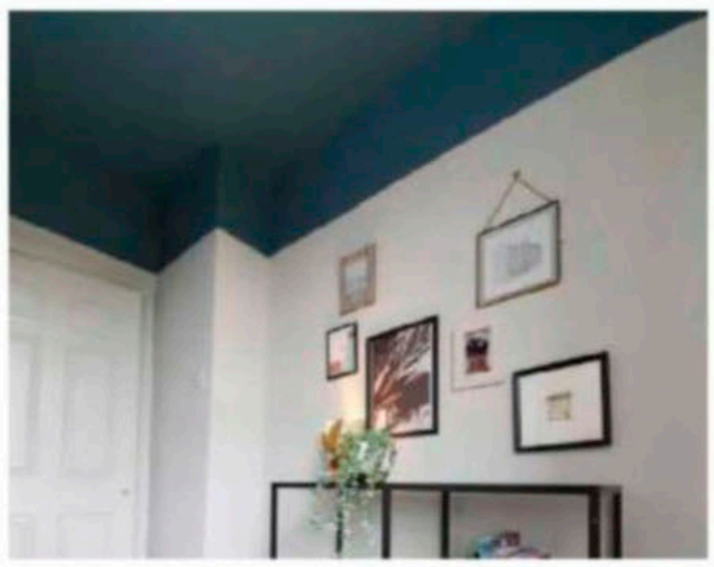
Light Blue

A colourful ceiling looks stunning paired with coordinating wallpaper, as shown here. Bring a sample of the wallpaper to the paint store to find the perfect colour. We recommend painting the ceiling before installing the wallpaper to avoid any disastrous paint drips.

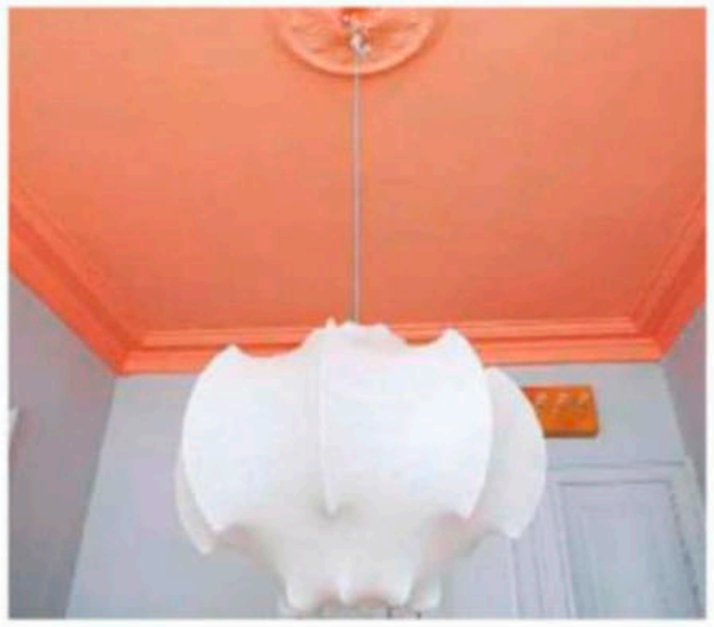


Dark Blue

To keep a dark ceiling from being too distracting, keep the rest of the space mostly neutral. In this office, the blue ceiling adds an exciting element of what otherwise could be just another white room.

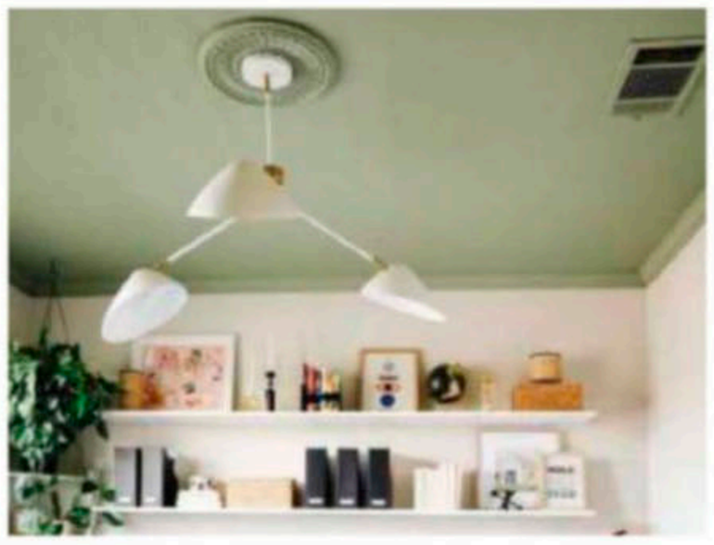


Talk about wow factor. This light coral ceiling looks stunning next to the light walls and modern light fixture. We love how the crown moulding and ceiling medallion were painted to match the ceiling, bringing attention to those cool architectural details.

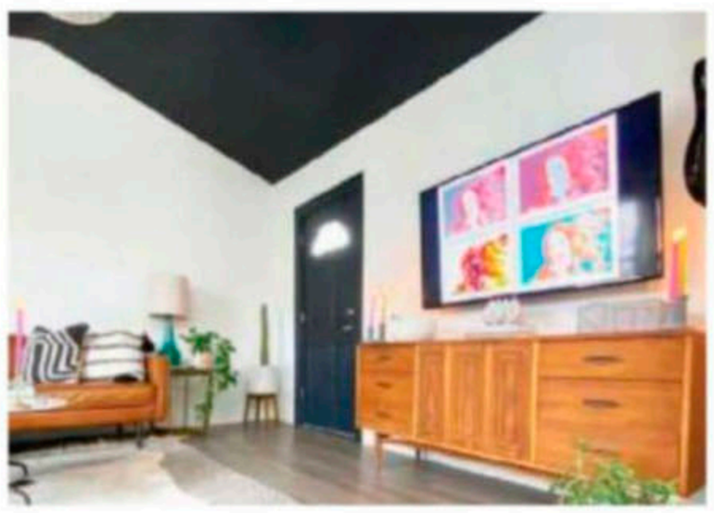


Green

Green is the colour of nature and therefore has a calm and relaxing effect. Green paint is a great choice for the walls or ceiling of any room. Here a muted green ceiling was used in an office to great effect. We love how it makes the white light fixture pop.



This large living room with vaulted ceilings looks cosy and welcoming thanks to the black ceiling, a daring choice. A tried-and-true interior design rule is that every room needs an element of black, so why not go with the ceiling? And it looks great coordinated with the black front door.



HOW TO SIZE A CEILING FAN

Ceiling fans can be very helpful for moving air around a stagnant room or moving hot or cool air down from the ceiling. They come in a variety of shapes and sizes, but with so many choices, how do you determine what size of ceiling fan you need? These steps will help you determine what size ceiling fan you should put in a room.

Measure the square metreage of your room. This will help you determine what diameter ceiling fan will fit in the space.

- Measure the length and width of your room, then simply multiply the measurements together. This will give you the square metreage of your room.
- When looking at the diameter of different brands of fan, you may find the diameter of its span listed as its 'sweep.'

Consult a sizing guide to determine what ceiling fan sweep will work for the square footage of your room. A guideline for sizing ceiling fans has been determined by the American Lighting Association.

- For rooms 7 square metres or smaller, your ceiling fan should be 90cm or less in diameter.
- For rooms between 7 and 14 square metres, your ceiling fan should have a diameter of 90 to 110cm.
- For larger rooms, with a square metreage around 20, a 130 to 140cm blade span, or even larger, are best.

Measure the height of your room. You need to install a ceiling fan high enough so that it poses no risk of hitting someone. Larger ceiling fans tend to be have a larger drop from the ceiling, so you need to take their drop into consideration when picking what size ceiling fan you want to install.

- It is recommended that you should put a ceiling fan at least 2.1m above the floor. This means that you should probably not install a ceiling fan in a room that has a very low ceiling. It also means that you need to look at the drop of any ceiling fans you are considering, making sure that the lowest point of the fan will be above 2.1m at minimum.
- Many ceiling fans come with an optional down rod, an attachment that can lower the fan away from the ceiling. If you have very tall ceilings, you may want to use it so that the fan can move the air in the room efficiently.
- For low ceilings, you will want to flush-mount the fan. If your ceilings are very close to 2.1m tall, there are even some 'hugger' or 'low-profile' models available.

Assess the ceiling for possible obstacles. You will need to make sure that there are not obstacles on the ceiling that paddles could hit. Make sure there are no other lights in the way or architectural features that will create an obstacle to the rotation of the fan.

- If you have obstacles that cannot be moved, you may need to downsize the size of ceiling fan you install.

Determine how you want to use the fan. The purpose of a ceiling fan can vary. You can install them just for moving air around slightly or to cooling a space dramatically. If you want a lot of air movement, you will need to get a larger ceiling fan.

- You may want a ceiling fan that has a light integrated into it, so that it can function as a light and a fan. Ceiling fans with light kits, the term for the light fixtures attached to the bottom, will usually have a greater depth. This means that you need an even higher ceiling for a ceiling fan with a light on it, than one with without.

Think about how different size ceiling fans will look in the space. The bigger the fan, the more room it will take up and the more noticeable it will be. While there are many stylish options to choose from, taking the look into consideration when deciding on a size of ceiling fan is important.

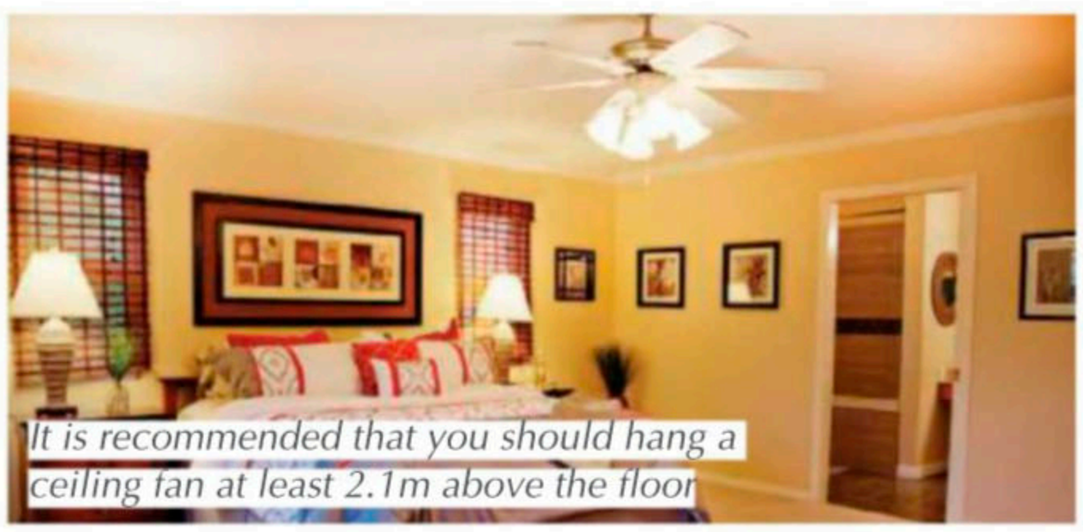
- If you are concerned about a fan standing out in a space, and you are determined to get a certain size, try getting your ceiling fan in a colour that matches the ceiling. It will stand out less than one in a bright or shiny colour.
- Remember that ultimately, the diameter of your ceiling fan blades have to be compatible with the area of your ceiling.

Determine what kind of supports you have in the ceiling for your ceiling fan. Once you have decided what size fan you want, you will need to make sure that you have enough support in the ceiling to handle its weight and movement.

- While all ceiling fans should have additional supports added to the electrical box they are connected to, larger ceiling fans usually weigh more and thus will need stronger support to hang from.
- The manual that comes with your fan should have recommendations for ceiling supports.
- If you are unsure if you have enough support for the ceiling fan you choose, you might consider hiring an electrician to check and add any additional supports in the ceiling that are necessary.
- The weight of your ceiling fan will be dramatically different depending on its size. The weight is particularly determined by the size of the motor. A larger, stronger motor will weight a lot more than a weaker, smaller motor.

Tip: If you don't feel confident installing your ceiling fan, it may be a good idea to hire a professional to do the job for you.

- Ensure that the power is turned off at your electrical panel before attempting to do any electrical work. Before you install your ceiling fan, turn off the power at the circuit breaker, not just at the switch on the wall. This will help you avoid the risk of electrocution.



It is recommended that you should hang a ceiling fan at least 2.1m above the floor

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Creating Concrete Possibilities

AfriSam

SIMPLE DESK WITH STYLE

In these days of working from home, here is an option to make your own small, stylish workspace.

This desk provides a great workspace in a compact package. Thanks to the folding lid, you can leave your laptop and working materials in place on the desk, but cover them up when they're not in use. On top of being functional, the desk also offers a unique look that's surprisingly easy to create. Kreg show you how to make your own.

Wood products

- 1 x 19 x 64 x 2400mm board
- 2 x 19 x 89 x 2400mm board
- 1 x 19 x 89 x 1200mm board
- 1 x 19 x 184 x 2400mm board
- 1 x 19 x 235 x 1200mm Board
- 1 x 19 x 600 x 900mm plywood

Tools

- Drill/driver
- Pocket hole jig
- Miter saw
- Circular saw
- Jig saw
- Sander
- Iron
- Tape measure

Hardware & supplies

- 45 x Kreg 32mm coarse-thread pocket-hole screws
- 16 x Kreg paint-grade pocket-hole plugs
- 2 x full-inset, partial-wrap hinges for 19mm cabinet door
- Iron-on edgebanding
- Wood glue

PARTS LIST	
2 x Front Leg	19 x 89 x 930mm
2 x Back Leg	19 x 89 x 900mm
2 x Upper Side Rail	19 x 184 x 330mm
2 x Lower Side Rail	19 x 89 x 420mm
1 x Back	19 x 184 x 725mm
1 x Back Rail	19 x 89 x 725mm
1 x Lid	19 x 235 x 720mm
1 x Lid Front	19 x 64 x 720mm
1 x Lid Support	19 x 64 x 725mm
1 x Desk Top	19 x 485 x 725mm

Measurements can be rounded off to standard sizes

Step-by-step guide

Step 1: Cut two Back Legs to length from a 19 x 89mm board, as shown in the cutting diagram. Then cut two Front Legs to length. Note that both ends of the Front Legs are cut at parallel 10° angles. Then, use a quart can to lay out the radius on the Front Legs, and cut it to shape with a jig saw.

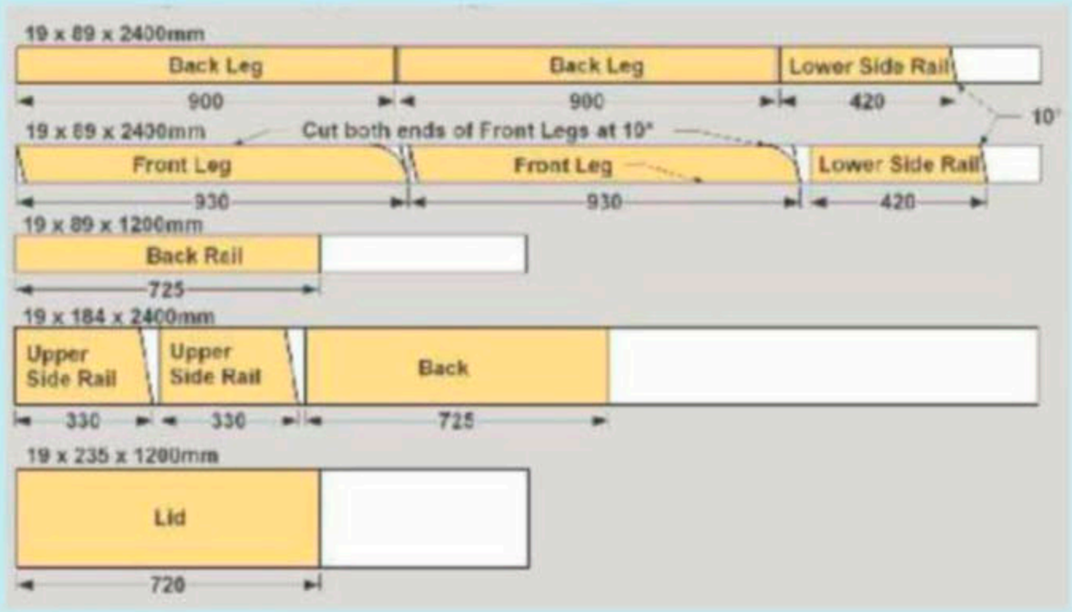
Step 2: Cut two Upper Side Rails from a 19 x 184 board. Not that one end is cut at a 10° angle. Then, with your pocket-hole jig set up for 19mm material, drill pocket holes where shown.

Step 3: Cut two Lower Side Rails from a 19 x 89mm board. Not that one end is cut at a 10° angle. With your pocket-hole jig set up for 19mm material, drill pocket holes where shown.

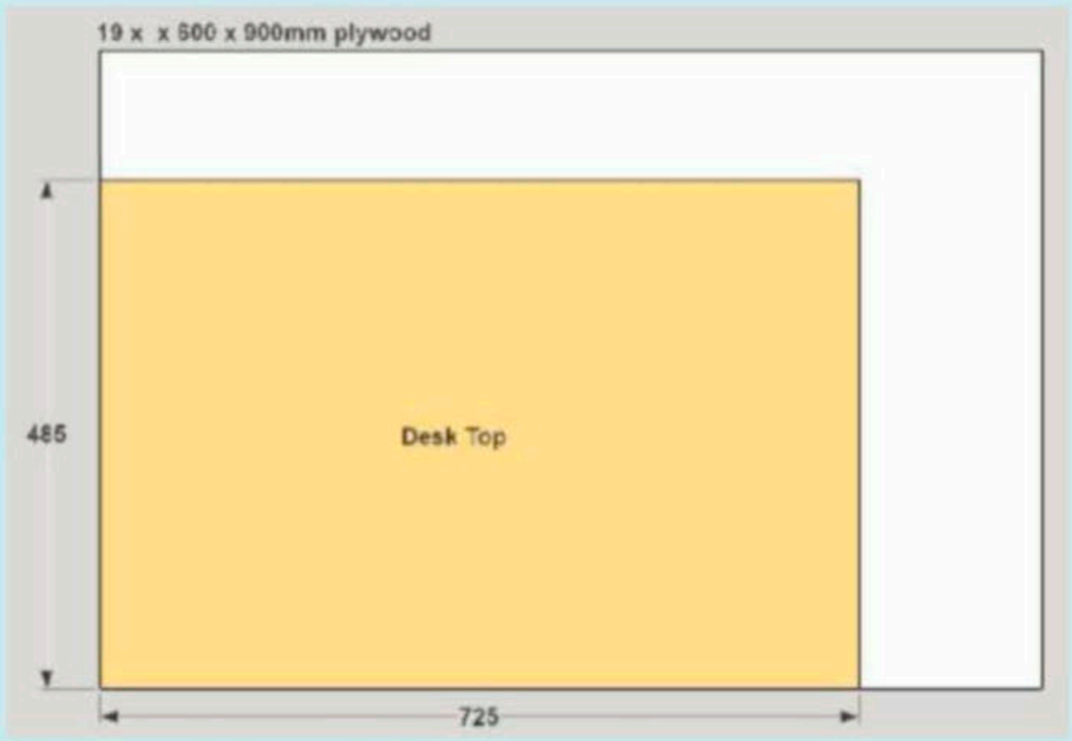
Step 4: Now you can attach the Legs to the Rails using 32mm coarse-thread pocket-hole screws, as shown. Glue pocket-hole plugs into the holes, and then sand the plugs smooth.

Step 5: Cut a Desk Top to size from a quarter-sheet of 19mm plywood. With your pocket-hole jig set up for 19mm material, drill pocket holes where shown. Also drill a 50mm hole near the back edge for power cords to pass through. Apply iron-on edgebanding to the front edge of the Top, as well.

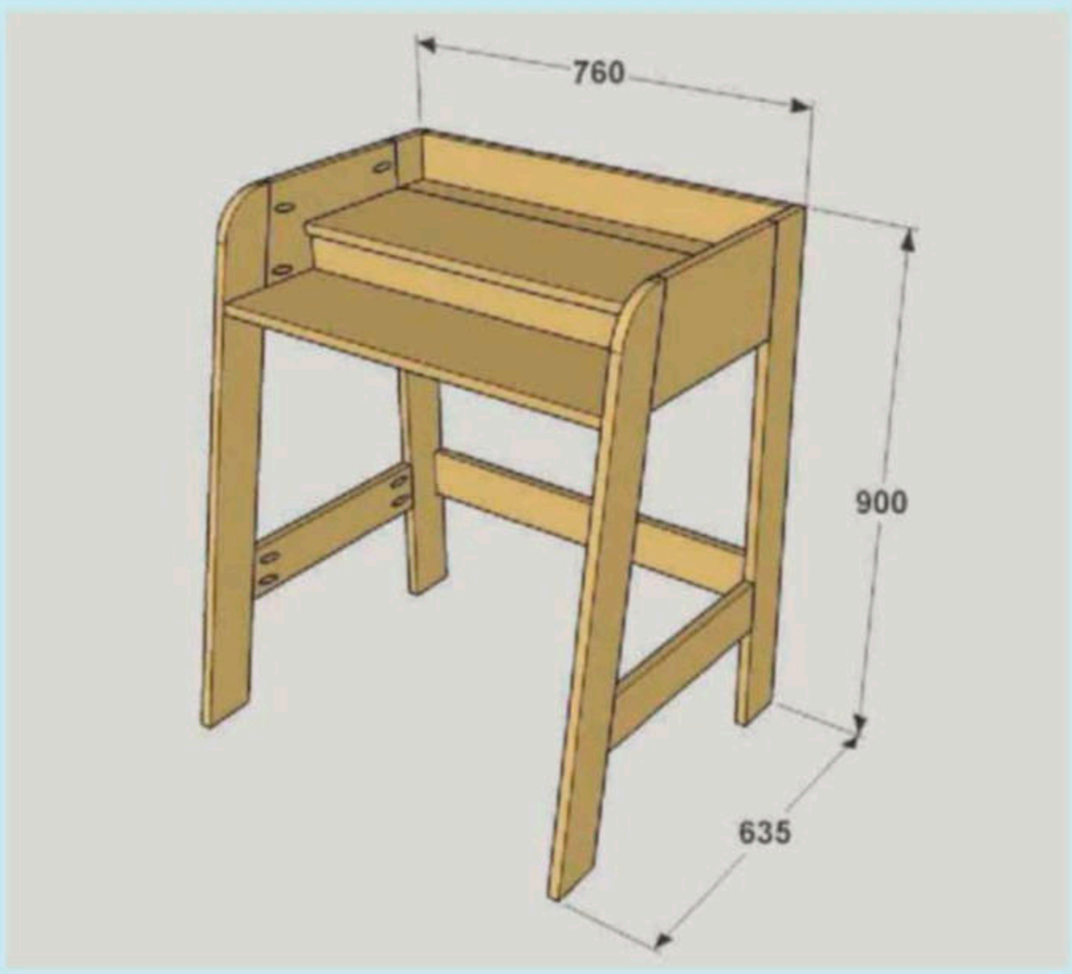
Step 6: Cut a Back to length from a 19 x 184 board, and a Back Rail to length from a 19 x 89mm board, as shown in the cutting diagram. With your pocket-hole jig set up for 19mm material, drill pocket holes where shown.



The cutting diagram

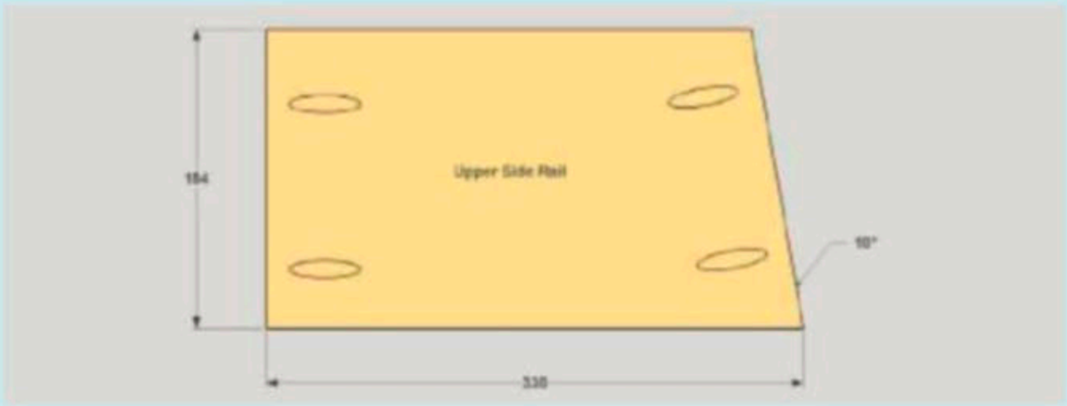


Cutting for the plywood



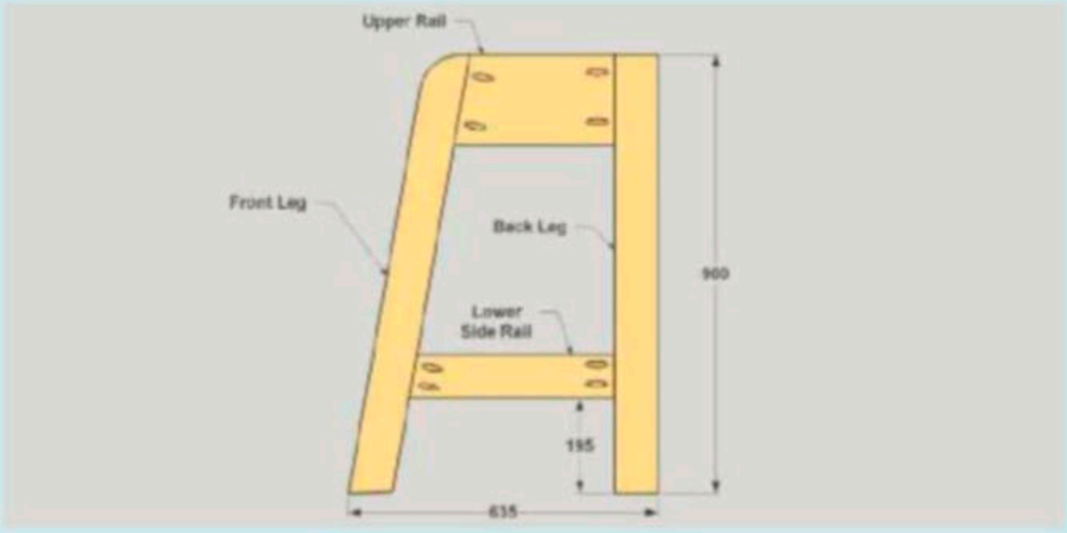
The overall design

Cut Legs to size

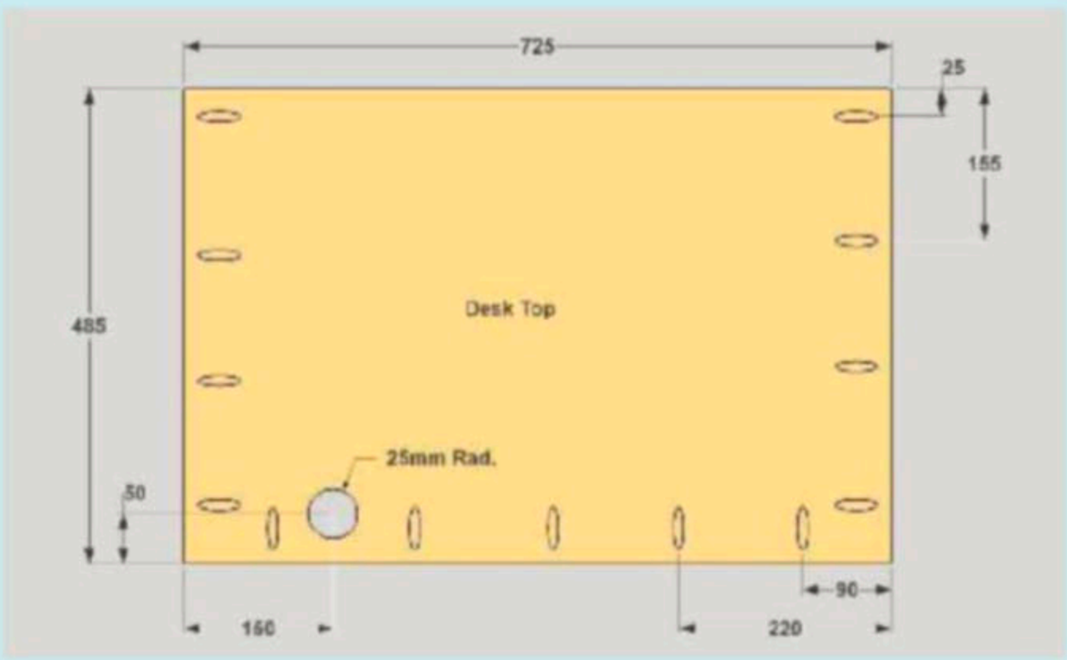


Cut a pair of Upper Rails

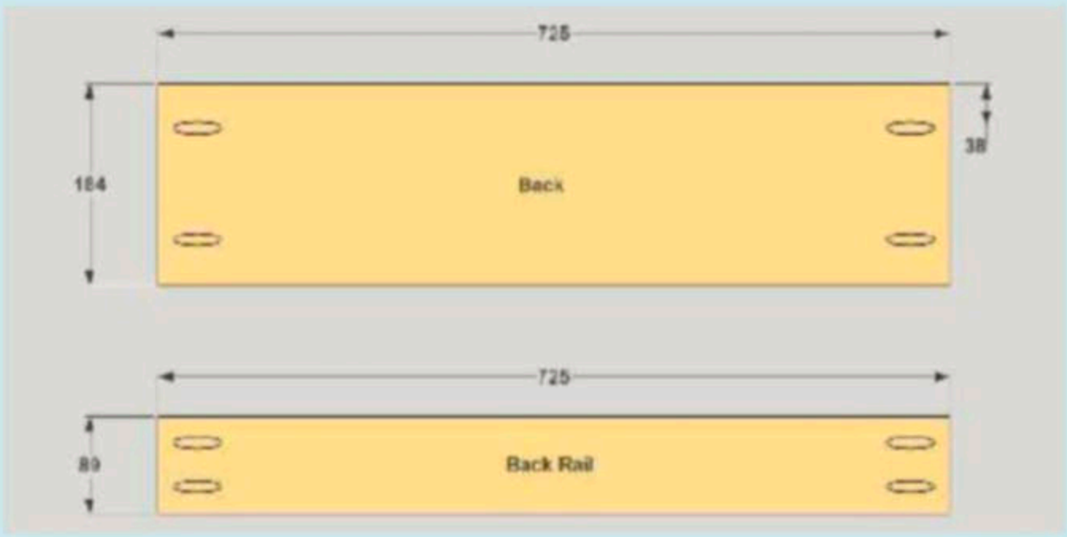
Cut a pair of Lower Rails



Assemble the Sides



Make a Desk Top



Add a Back and Back Rail

Step 7: Attach the Back to the Desk Top using 32mm coarse-thread pocket-hole screws, then attach these pieces to one of the side assemblies. Also attach the Back Rail, aligning it with the Lower Side Rail.

Step 8: Cut a Lid to length from a 19 x 235mm board, as shown in the cutting diagram. Also cut a Lid Front and a Lid Support to length from a 19 x 64mm board. Then drill pocket holes, as shown, with your pocket-hole jig set up for 19mm material.

Step 9: Now you can attach the Lid Support using 32mm coarse-thread pocket-hole screws. Then bring in the other side assembly and secure it.

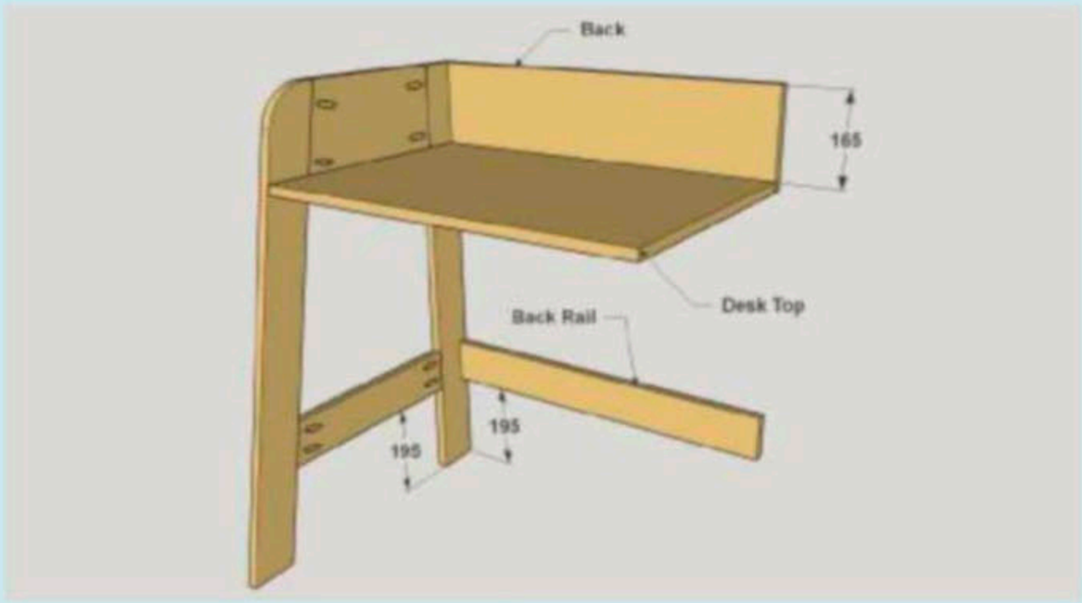
Step 10: Attach the Lid Front to the Lid using 32mm coarse-thread pocket-hole screws. Note that the Lid front is set back 13mm from the edge of the Lid.

Step 11: To complete construction of your desk, install a pair of hinges on the Lid, and connect them to the Lid Support. Then you can paint, stain, or finish the desk and put it to work.

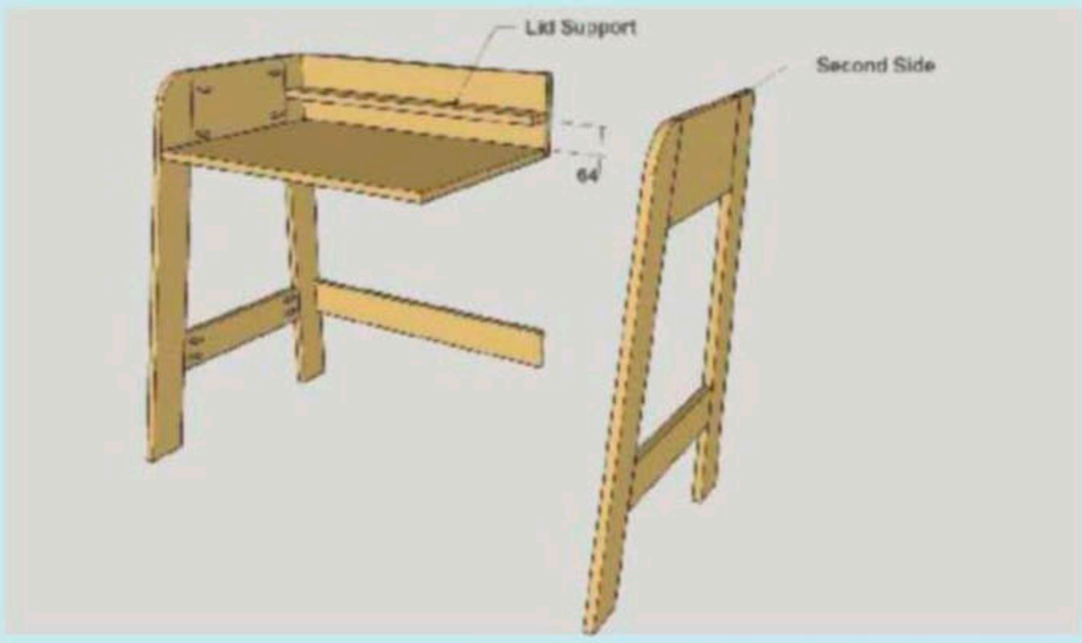
Paint with natural edges

The paint finish on this desk might look complicated, but it's easy. The secret is to use foam rollers, and go lightly near the edges. Don't load the roller with a lot of paint, and it won't seep over the edges. You'll have to apply several light coats, but the result is worth it. If any paint gets on the edges, just let it dry, and then sand it away. To protect he edges, wipe on a coat of natural oil finish after the paint dries.

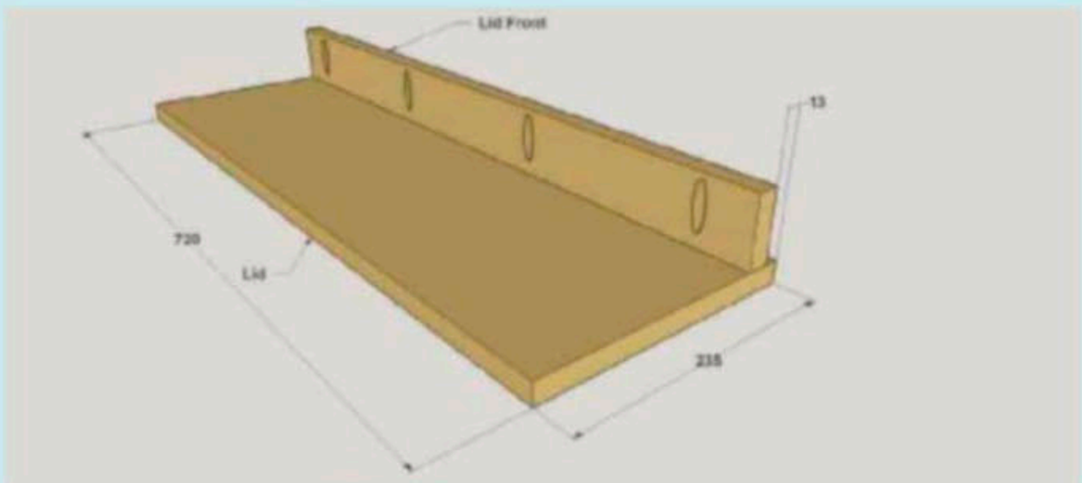
Thanks to the folding lid, you can leave your laptop and working materials in place on the desk, but cover them up when they're not in use



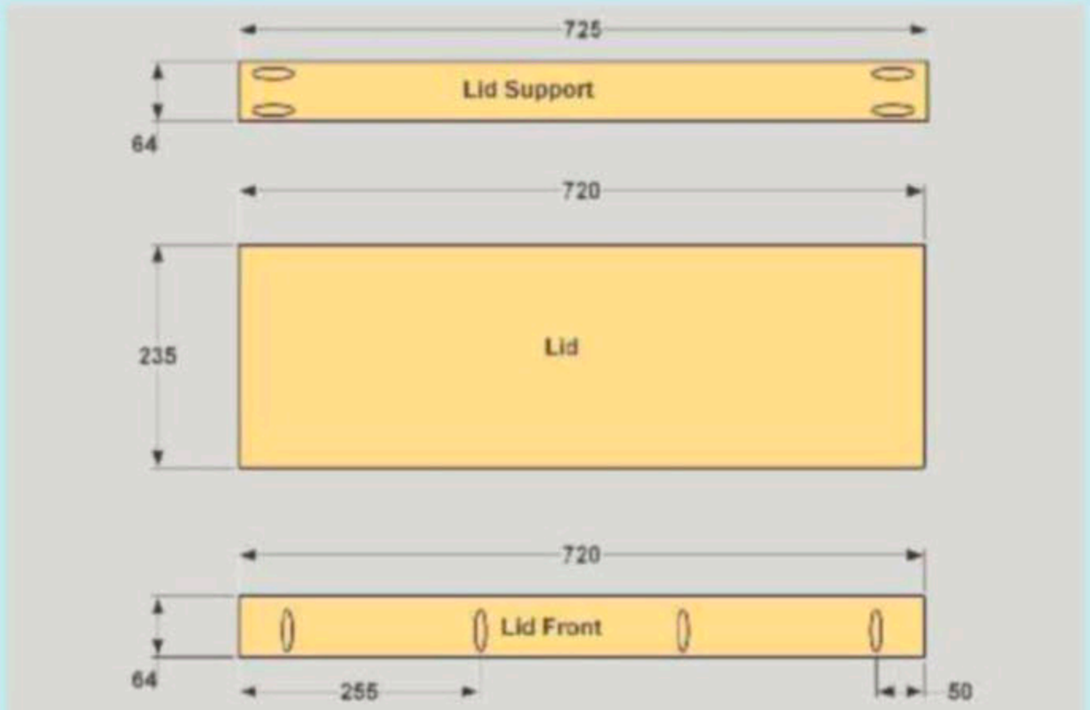
Attach the Back and Desk Top



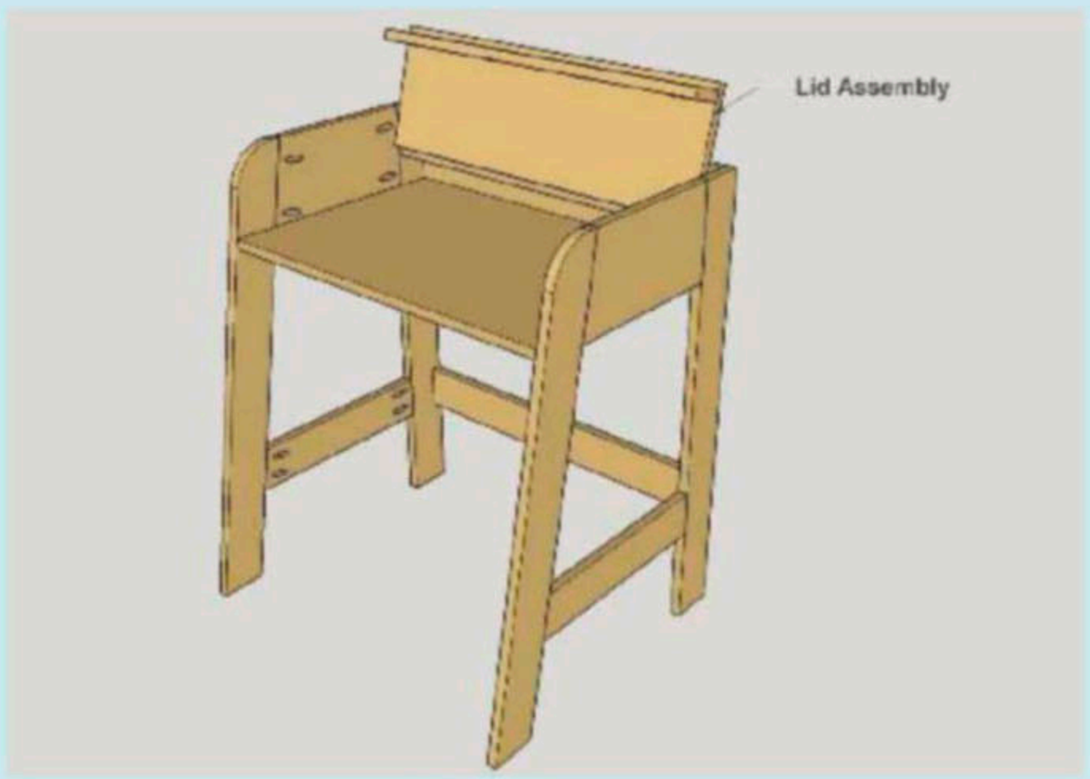
Bring in Support and a Side



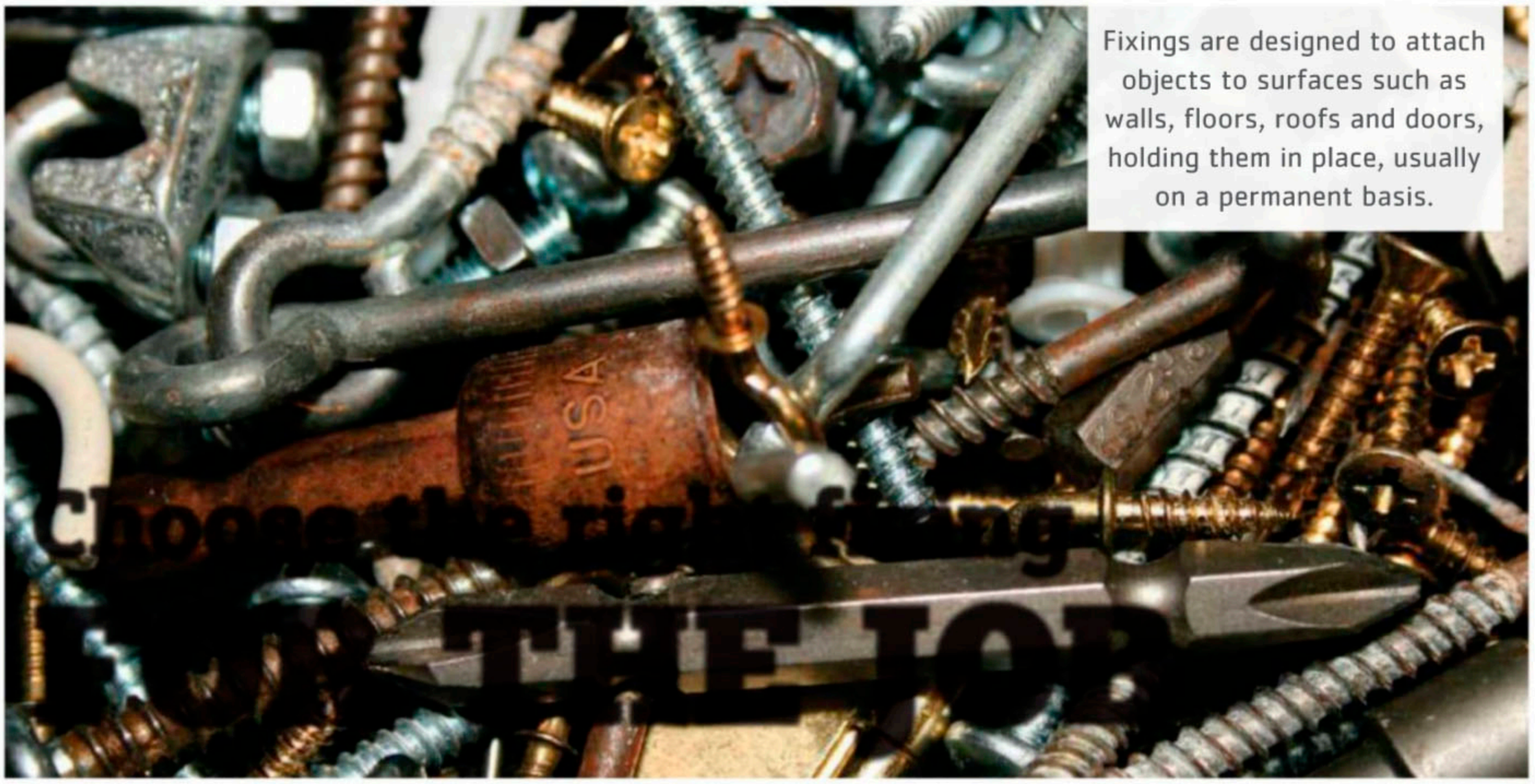
Assemble the Lid



Make the Lid Parts



Install the Lid, then paint



Fixings are designed to attach objects to surfaces such as walls, floors, roofs and doors, holding them in place, usually on a permanent basis.

Fixings and fasteners are a form of connector and play an indispensable role in construction and DIY. Usually a fixing is key to attach a component to one that is larger or immovable, such as fixing a cupboard to a wall, or a handle to a door, or a timber joist to a wall plate. These instances will require the use of fixings such as screws, plugs, bolts and nails.

In contrast, fasteners tend to be for holding things together, often of a similar nature, and of a smaller- or lighter-scale. In stationary, examples of this would be paper clips and staplers, which are fasteners and hold together sheets of paper – but they are not said to 'fix' them together.

particular job is important. Typical fixings include:

Nails

Nails are an ancient method of holding two items together and although crude, they are relatively cheap and simple to use. They are mainly used in timber applications for example, to hold together glued joints, for attaching plasterboard to walls and ceilings, and for nailing down floorboards and roof battens.

Screws

Unlike nails which are hammered in, screws require fixing with a screwdriver. For this purpose, they come with various head shapes – slotted, cross-head (Phillips) or other – and in a choice of materials. When fixing materials together or attaching items to a wall, screws can be preferable to nails as they typically give a better clamping force and can also be removed and reinstated in a reverse process to that of fixing.

When used in masonry walls, however, rawl plugs are required to give a better grip into the material being fixed into, whether masonry or concrete. In these applications, screws are not driven into the wall directly but into a rawl plug (usually plastic) that is inserted into a drilled hole. These are available in moulded or extruded plastic or the traditional fibre material. Expansion sleeves are also available for use with masonry nails and are used for fixing wall linings and skirting boards.

In woodwork, when screws are used with an adhesive, there is usually no need to temporarily clamp together the two pieces as might be needed when just using an adhesive.

Screws are typically made of mild steel, but are also available in corrosion-resistant stainless steel and brass. Some may also be plated with zinc, chrome or brass.

The typical elements of a screw are:

- The head, which determines which type of screwdriver can be used – e.g whether cross-head or slotted – and allows the screw to be driven. The screw head itself can take various forms according to the work in hand. These include countersunk, roundhead (or domed), raised head, mirror screws or pan head (self-tapping)
- The shaft, which comprises a shank (and which acts as a dowel) below the head, and the threaded portion which is generally around two thirds of the shaft length and ends in a point to allow easier starting.

Screws are usually described by their length and their shank diameter (gauge or SWG – usually a number from 1-20).

Other accessories that can be used with screws include caps, cups and sockets.

Nuts and bolts

A bolt is a type of fastener, usually made from metal, that commonly comprises a head at one end, a chamfer at the other, and a shaft characterised by an external helical ridge known as a 'thread'. Bolts are typically used to hold materials or objects together, or to position objects.

The chamfer at the opposite end of the head provides a slightly bevelled edge which helps with inserting the bolt into holes and nuts. Bolts typically (but not always) require a nut which is applied via torque while the bolt is held in place (or vice versa). Vibration or dynamic loads may loosen nuts, necessitating the use of locknuts, lock washers or thread lockers which can provide resistance to loosening.

Special plugs (anchors)

A range of special wall fixings are available which can be used to provide fixings in hollow walls. As the screw is turned into the anchor/ fixing, grippers expand to apply a force on the other side of the material, be it plasterboard or ply etc, thereby giving a good grip and fixing.

Rivets

A rivet is a mechanical fastener for making a permanent join between two or more metal sheets. Riveting is the act of fastening or securing two plates with one or more rivets. The rivet comprises a shank with a plain end (or tail), and a head on the other end. The rivet has proved to be one of the most reliable and safe means of fastening, forming a permanent and structurally robust join.

Welding

Welding is a technique that can be used to join metallic components through the application of heat. It produces a secure and strong joint by combining two metals into one rather than other processes such as brazing and soldering that bond the pieces together.

Others

Other types of fixing include:

-

- Soldering
-
- Staples
- Adhesives

DID YOU KNOW

A fixture is '...an asset that is installed or otherwise fixed in or to a building or land so as to become part of that building or land in law' (for example, a geyser)'.

Bolts are typically used to hold materials or objects together, or to position objects

TYPES OF SCREW

There are many different varieties of screw which are selected based on the particular requirement or the materials involved. Some of the most common types include:

Chipboard screw

Often wax-coated and used for fastening down chipboard flooring.

Concrete screw

Stainless or carbon steel and used for fastening materials to concrete.

Decking screw

Longer screws which are used for fastening down deck boards.

Double-ended (dowel) screw

Have two pointed ends and no head. Often used for making hidden joints between two pieces of timber.

Drive screw

Smooth, round or mushroom-headed with a reduced diameter shank.

Drywall screw

Often coated with black phosphate and designed with a bugle head. Used to attach drywall to timber or metal studs.

Eye bolt

A looped head designed to be used as an attachment point. Also used for attaching wires across building surfaces.

Lag screw/bolt

A heavy-duty fastener.

Masonry screw

Often have a blue coating and are inserted to a pilot hole in masonry.

Mirror screw

Designed with a decorative dome or other cover to conceal the head.

Security head screw

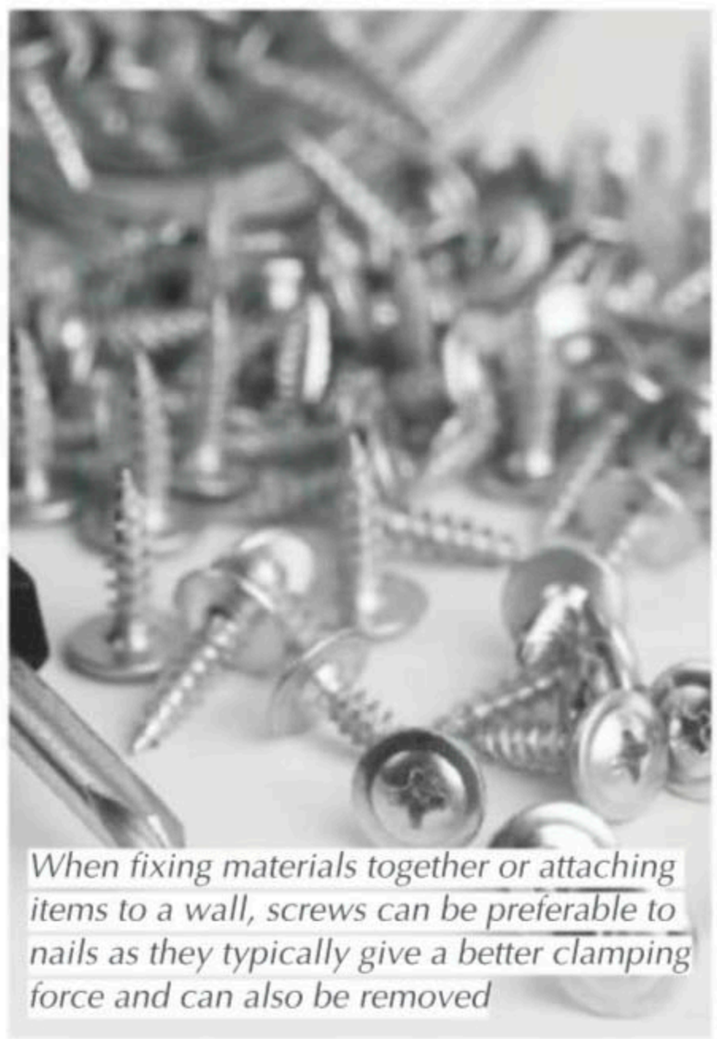
Designed with a head that is impossible to reverse, making it suitable for security applications.

Twinfast screw

Designed with two threads which enable it to driven twice as fast.

Wood screw

Typically designed with a partially-unthreaded shank and used to attach pieces of timber together.



When fixing materials together or attaching items to a wall, screws can be preferable to nails as they typically give a better clamping force and can also be removed

Screw heads

Different types of heads include:

- **Pan head:** Rounded, high outer edge with a large surface area.
- **Button/dome head:** Cylindrical head with a rounded, dome-like top.
- **Round head:** Dome-shaped and used mainly for decorative purposes.
- **Mushroom head:** The dome has a lower profile that is designed to prevent tampering.

- **Countersunk/flat head:** Conical head with a flat outer face and a tapered inner face.
- **Oval/raised head:** Countersunk bottom and rounded top, often used decoratively.
- **Bugle head:** A smooth transition from the shank to the angle of the head.
- **Cheese head:** A disc with a cylindrical outer edge.
- **Fillister head:** Cylindrical with a slightly convex top surface.
- **Flanged head:** Can be any style but has the addition, at the base of the head, of an integrated flange which means it does not require a washer.

TYPES OF NAILS

While nails may vary between manufacturers, the most common types include:

Common nails

Also known as round head, these are the most widely-used type of nail for joining timber and other elements, particularly where a rougher finish is acceptable. It is good practice to use nails that are at least three times longer than the depth of the thinner material that is being nailed.
A variation is the oval head nail which is oval in cross-section and minimises the risk of splitting the timber.

Finishing nails

These are similar to common nails but have much smaller heads which sit flush with the timber surface and provide a neater finish. A nail set can be used to recess the head to conceal it completely. This capability means that they are often used in furniture and decorative or exposed timber. The smaller head sizes also mean there is a reduced risk of the timber splitting. Finishing nails can be made of brass to provide a decorative detail.

Box nails

Box nails are commonly used for light construction as they are slightly thinner than common nails and have less strength.

Roofing nails

These have larger heads and are often used for nailing shingles, attaching asphalt and other roofing purposes. The thin material is held in place and prevented from tearing loose by the large head. Smaller varieties can be used to attach roofing felt. They are typically galvanized to prevent rust.

Masonry nails

These are harder and thicker nails with small heads, typically made of hardened zinc which is stronger, enabling them to be driven into masonry surfaces effectively. They are often used to attach timber to stone or brick.

Double-headed nails

These nails are often used to secure scaffolding and other temporary structures in place. They have two heads, one above the other. They are driven in as far as the first head, while the top head remains above the surface, making it easy to remove.

Drywall nails

Drywall nails are used to hang drywall and are designed not to cut the paper face.

Annular ring shank nails

These are similar to common nails but comprise rings along the length of the shank. This provides better grip in the timber and a more secure attachment.

Special types of nails include:

- **Casing:** For use on small mouldings or thin plywood.
- **Brads:** Very narrow nails that provide a neat finish. Typically used in nail guns for fast fixing.
- **Glazing sprig:** A wedge-shaped nail that can be used with putty to secure glazing.
- **Cap nail:** Includes a plastic cap and is commonly used for nailing building fabrics.
- **Upholstery nail:** Small, dome-headed nails that are used for attaching upholstery to furnishings.
- **Carpet nail:** Also known as carpet tacks, they are used to hold down carpet in awkward areas such as corners and stairs.
- **Corrugated nail:** Has a corrugated cross-section, often used as an 'invisible' connector.
- **Staple nail:** Has an arched shape for holding wire in position on structures such as fence posts.

TYPES OF BOLTS

A bolt is a type of fastener, usually made from metal, that commonly comprises a head at one end, a chamfer at the other, and a shaft characterised by an external helical ridge known as a 'thread'. Bolts are typically used to hold materials or objects together, or to position objects.

The chamfer at the opposite end of the head provides a slightly bevelled edge which helps with inserting the bolt into holes and nuts. Bolts typically (but not always) require a nut which is applied via torque while the bolt is held in place (or vice versa). Vibration or dynamic loads may loosen nuts, necessitating the use of locknuts, lock washers or thread lockers which can provide resistance to loosening.

There are many different varieties of bolt which can be selected based on the particular requirement or the materials involved. Some of the most common types include:

Anchor bolt

Usually embedded in concrete or masonry for structural applications.

Carriage bolt

Used to fasten metal to timber, with a squared undercut to the head which holds the bolt in place once it has been tightened.

Elevator bolt

Commonly used in conveyor systems, an elevator bolt has a flat, plain or countersunk head which holds the bolt in place when tightened.

Flange bolt

Also known as frame bolts, this type of bolt distributes the bearing load using a washer on the undercut of the head.

Hanger bolt

This type of bolt comprises two threaded ends instead of having a head, one of which contains a wood screw.

Hexagon bolt/Tap bolt

A hexagon bolt comprises a head that has six sides, with threading that begins part-way down the shank, whereas a tap bolt's shank is threaded the whole length.

Huck bolt

A proprietary bolt in which the pin and collar are swaged together using a specialist tool to form a permanent fixing.

Lag bolt

Also known as lag screws, this is a heavy-duty fastener that creates its own mating thread in timber and other soft materials when tightened.

Machine bolt

This type of bolt has a short shank and is intended for assembling metal components through predrilled holes.

Plow bolt

This type of bolt is commonly used in construction tools and other devices due to its durability, and is characterised by its flat countersunk head and square shank neck.

Sex bolt

Rather than requiring a nut, the shank of sex bolts are covered with a 'mating' female component. These are useful for fastening components that cannot be exposed to abrasive threads.

Square head bolt

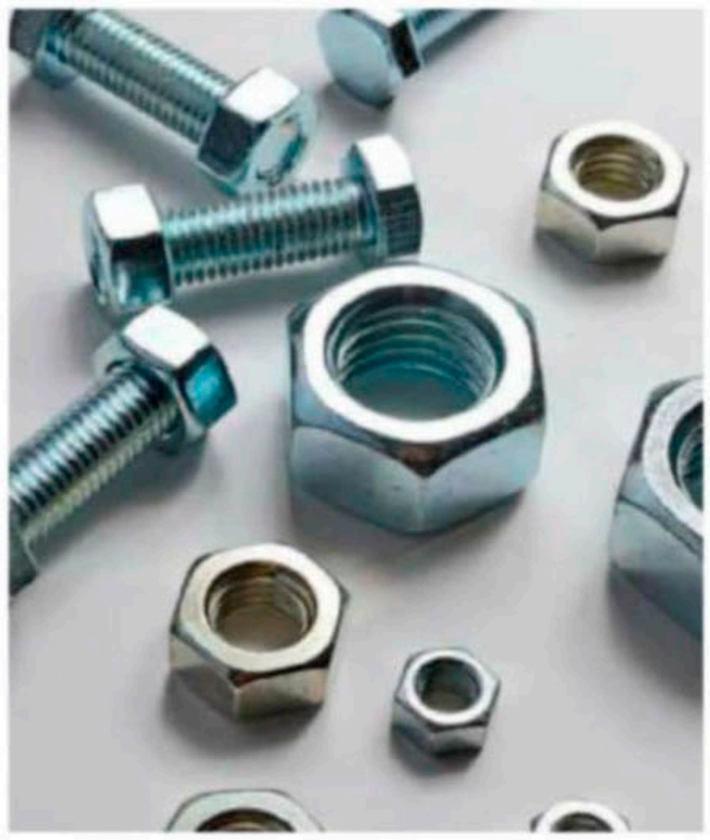
This is similar to a machine bolt in that it has a short shank, in addition to a four-sided bolt head.

Stud bolt

This type of bolt has hexagon nuts on both ends. Components are fastened between the two bolts.

Timber bolt

Bolts that are meant for use with large timber components.



T-head bolt

Has a T-shaped head which can be gripped by a wench and can fit into a slot with ease.

Toggle bolt

This type of bolt has an expanding wing-like nut which helps it to mount objects to walls.

U-bolt

Similar to staples, U-bolts are bent in the shape of a 'U' and are partially threaded on both ends.

Different types of heads include:

- **Square shoulder:** A truss head, shaped so as to allow fastening with the least amount of surface obstruction, on a square shank which resists rotation.
- **Indented hexagon:** For use with a wrench, this head has a circular depression in its top surface.
- **Indented hexagon washer:** Same as an indented hexagon, but with the addition of a washer section at the base to protect the assembly finish from the wrench.
- **Hexagon (trimmed):** Standard type of head, with clean corners that are trimmed to close tolerances.
- **Hexagon flange:** Similar to the indented hexagon washer, but the washer is conical or slightly rounded.

In this build we will show you how to make an easy desk lamp that you can build in few hours.

EASY WOODEN DESK LAMP

Materials

- 15mm x 50mm beech wood (or any other hardwood) (2 metres long)
- 15mm x 30mm beech wood (or any other hardwood) (at least 0,5m)
- 20cm x 20cm x 4cm block of same wood (for base – you can use anything else for base if you want)
- 0,5m LED strip (at least 12W/m)
- 0,5m 2-pole cable
- M6 x 60mm bolt with nylon lock nut (and some washers if you dont have even thick wood)
- 1 torque screw (it has to be at least 3cm longer than how base is thick)
- Power jack (female connector)
- 2 position switch
- Electrical tape
- Hot glue
- Wood glue
- Some plastic for not scratching a
- 12V 1A DC Power supply
- Acrylic sheet of glass (OPTIONAL)

Tools

- Clamps (as many as possible, I used 4 clamps – if you have more, you can glue more parts at the same time)
- Drill
- Drill bits (6mm, 3mm (for screw), same diameter as cable (I used 5mm) and drill bit which is same DC power connector)
- 10mm hex bit, torque screw bit
- Saw
- Chisel (for making hole for switch that is rectangular shape)
- Pencil
- 90 ruler
- Countersink bit (depends on which M6 bolt head type you have)
- Soldering iron with solder
- Wire stripper (or just knife)

With so many of us working from home over the last year and a half, many will know that work doesn't simply stop at 5pm… working into the late hours has become the norm for many people. With that in mind, this stylish desk lamp will not only provide additional light while you work, but also look great on your desk during the day.

Step-by-step guide

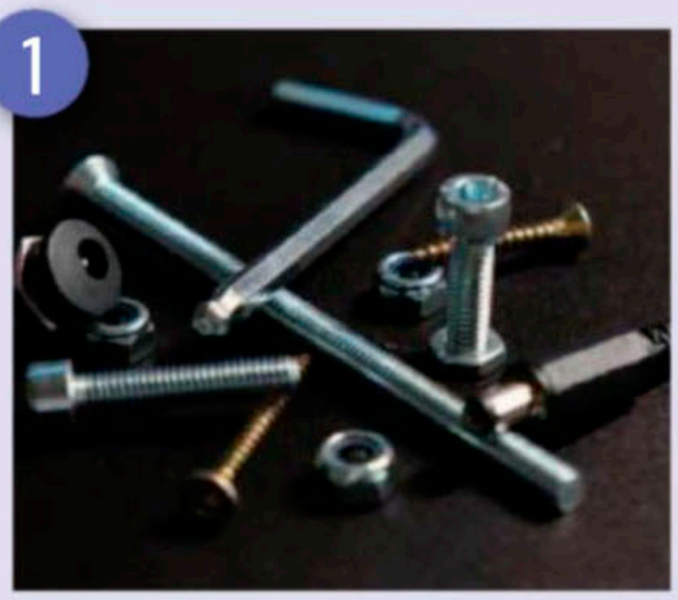
Cut your pieces of wood in the dimensions shown on the diagram. Then take two of the 40cm pieces, clamp them together (I used double-sided tape) and cut them at a 22° angle (this will make lamp tilted).

Clamp the two pieces with a 22° angle together again but with clamps. Drill a hole for the DC jack connector and make a rectangular hole for the switch with a drill and chisel (the DC jack hole must be closer to end with 22° angle). Make a channel on one side for the cable (as on picture). I used tracksaw, but if you don't have tracksaw, you can also drill many holes and make a channel that way.

Drill a hole from the side (while having pieces clamped together) that is longer for a cable (you can see in the pictures how to do it). Solder the switch and DC connector as in the picture and test if it fits – make sure that the polarity is right. If it is, then you can secure everything with hot glue. Apply wood glue and close it with another piece. Secure everything with clamps and wait as long as the manufacturer of the glue recommends before moving on.

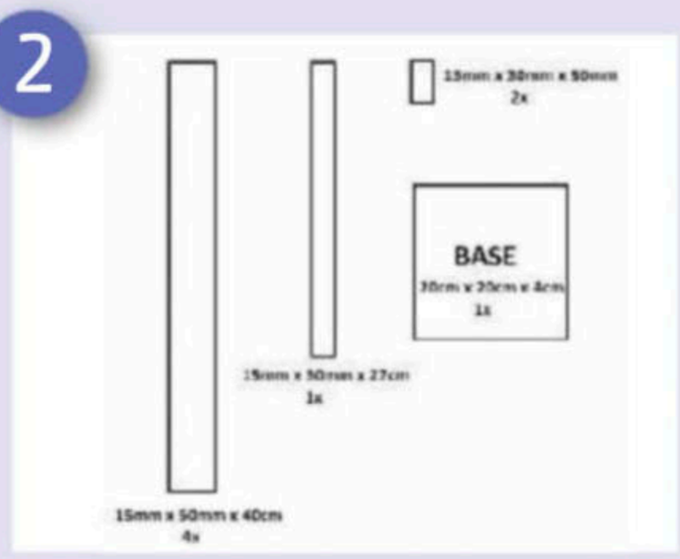
For the top piece, take the remaining pieces of wood and glue it with wood glue as shown in the pictures. To connect the top and main piece, take an M6 bolt

1



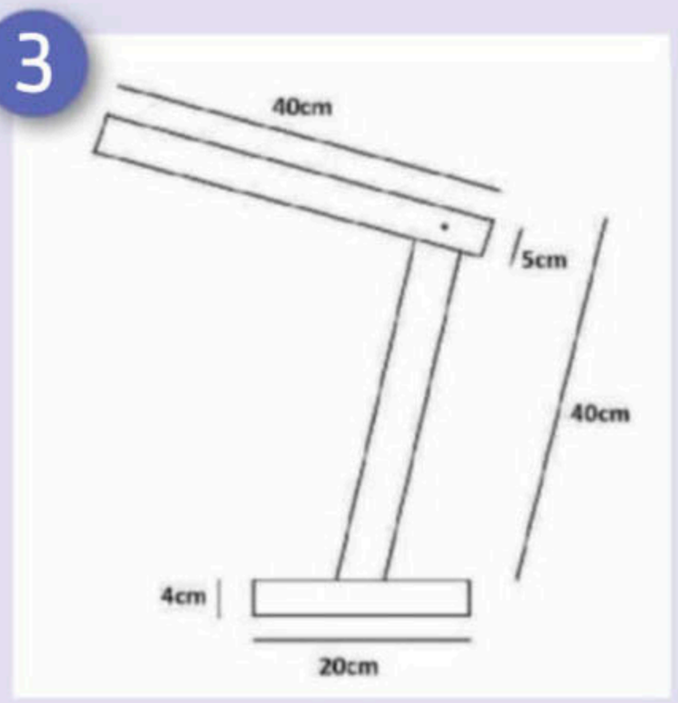
A few of the supplies needed

2



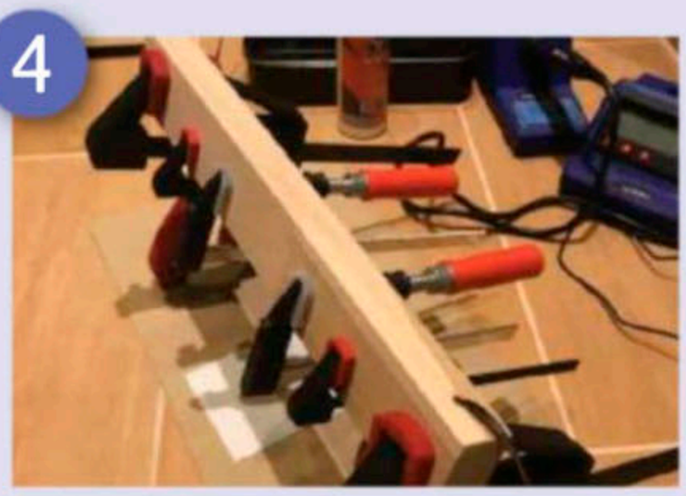
Measurements of what you will need to cut

3



Measurements of the lamp

4



Clamp two of the 40cm pieces together

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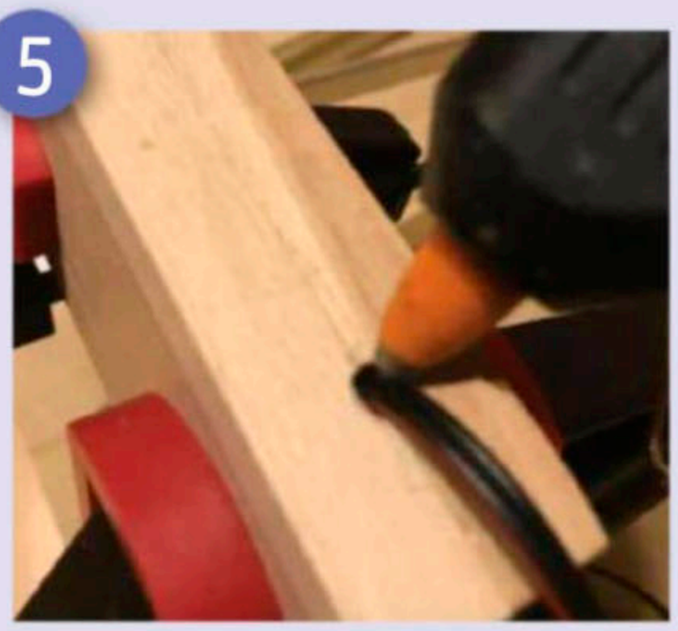


Drill a hole for DC jack

6

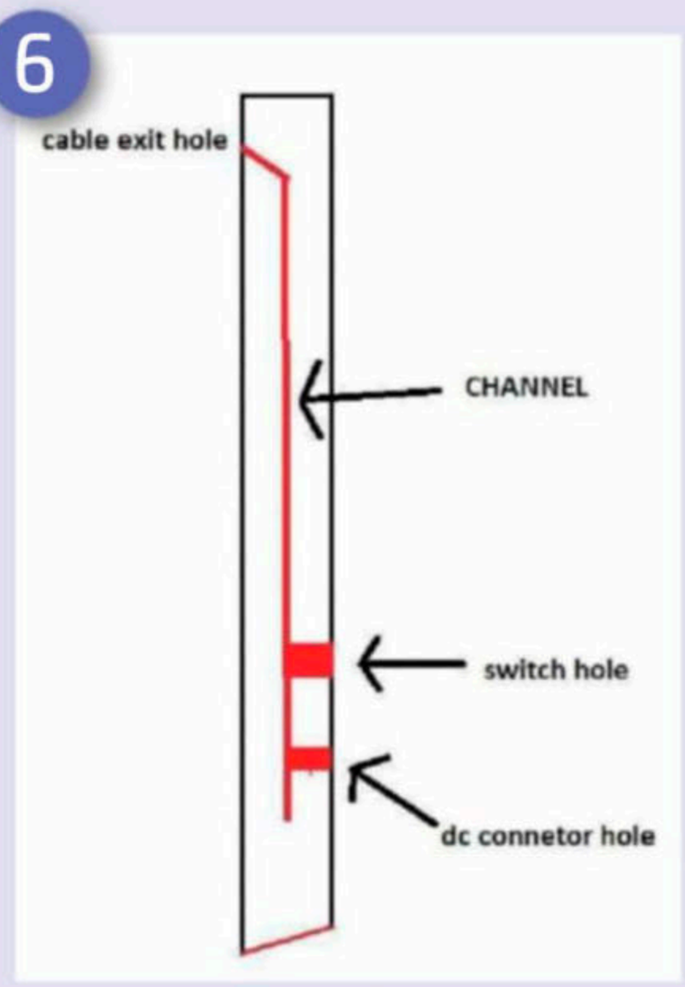
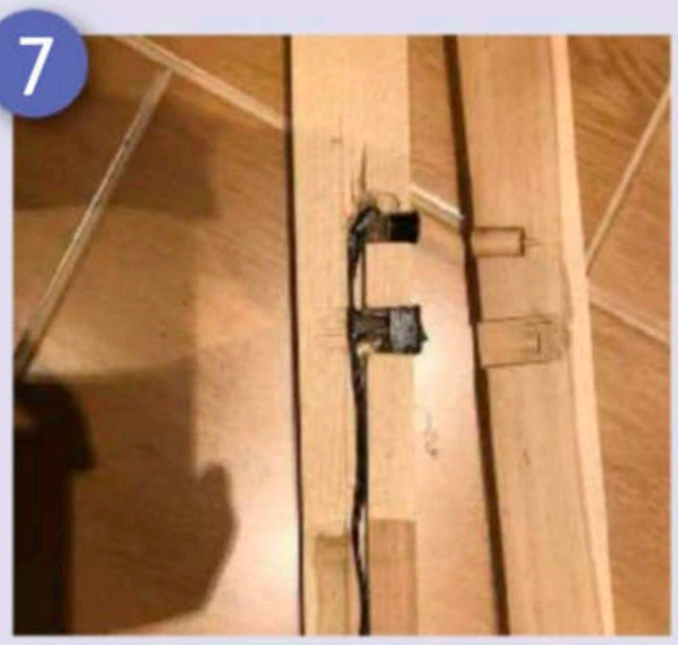


Diagram of the wiring

7

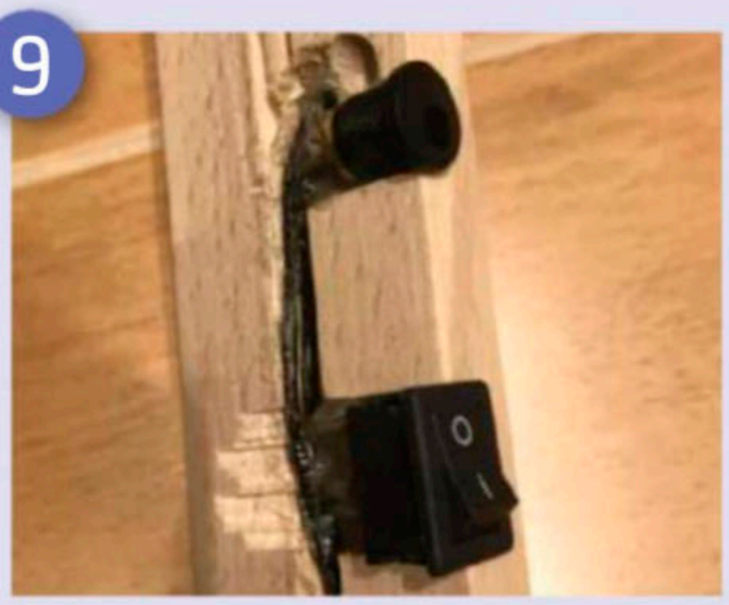


Make a rectangular hole for the switch

8

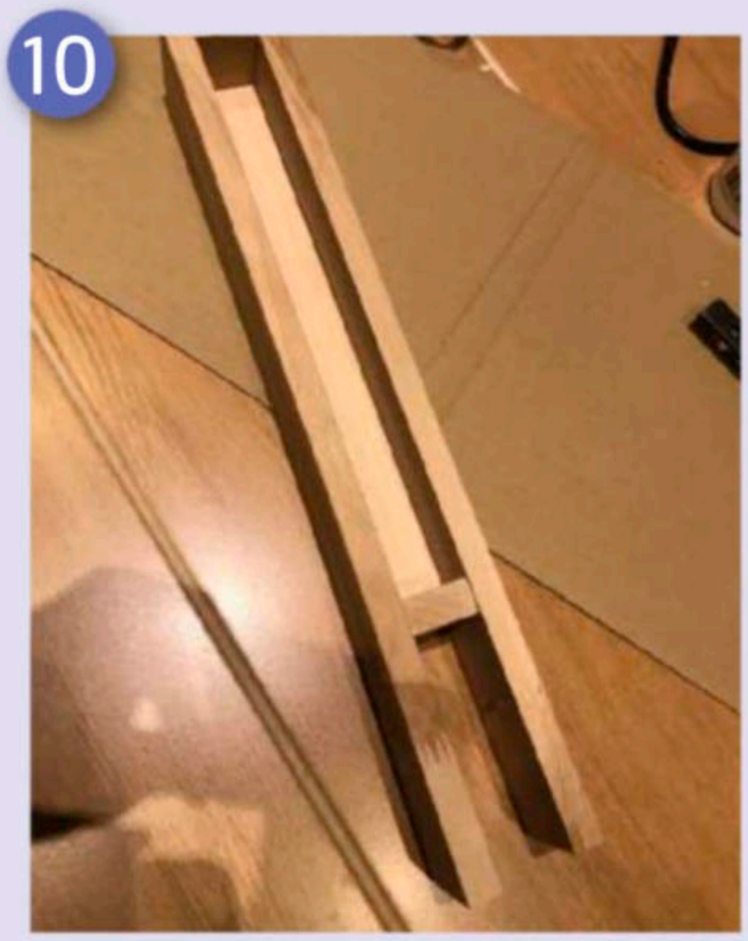
Solder the switch and DC connector

9



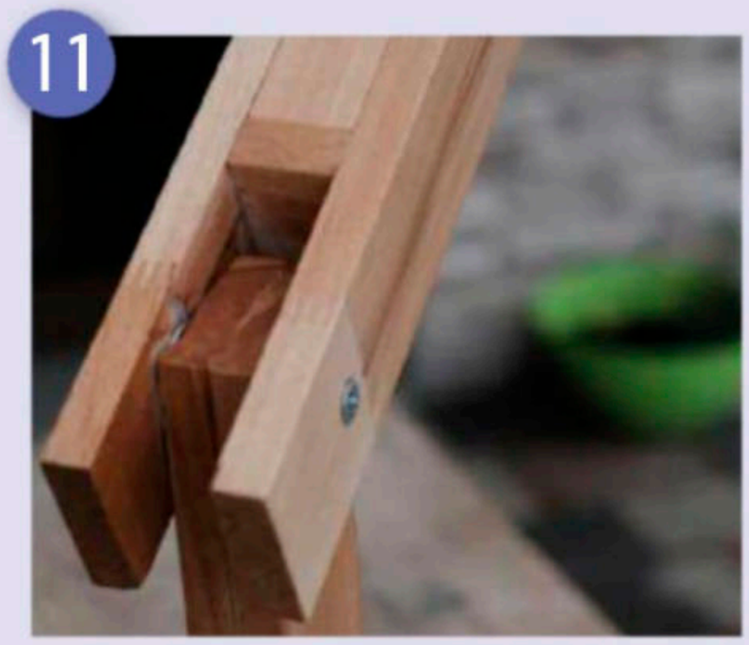
The switch and socket in place

10



Take remaining pieces of wood and glue with wood glue

11



Connecting the top and the main piece

12

An M6 bolt and nylon lock nut were used

and nylon lock nut and test if it is tight enough. If not, then take some washers and place them between the two pieces as I did.

Next, drill a 6mm hole through both pieces (be aware that there is cable inside). Screw everything together with the M6 bolt and tighten the nut for optimal moving pressure (as you will be able to move the top piece of lamp to adjust the light, you need to have pressure to hold lamp from falling but not too high a pressure that you will not be able to move the lamp). Drill a hole as in the photographs on the top piece for the cable to pass through. Test if the lamp can stand without falling.

Moving on to the lights, cut two pieces of 25cm LED strip. Solder the positive and negative on the strip to a cable. Stick both LED strips on the wood and tape the connections with electrical tape before testing if the light is working. An optional extra is to use a sanded piece of plexiglass (acrylic sheet of glass) and glue it on top of the LED strips.

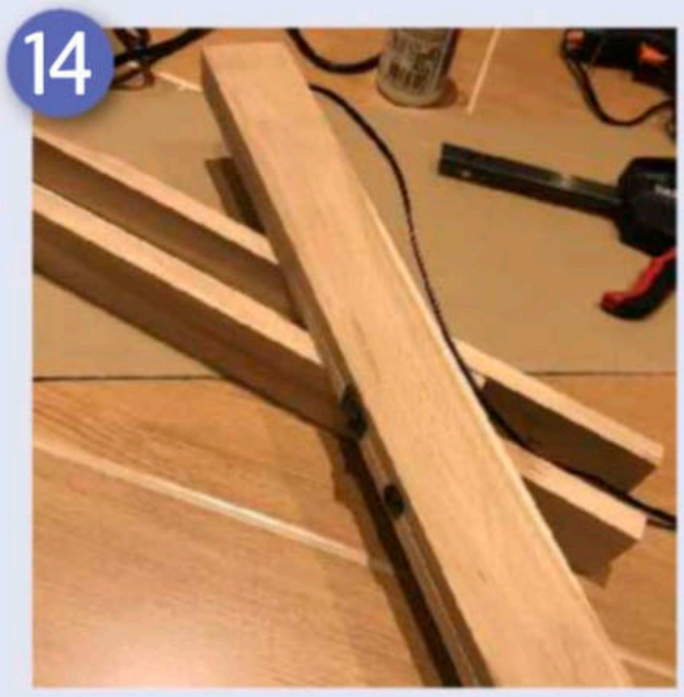
Secure the lamp to the base as shown in the pictures – drill a hole for a screw and apply wood glue between the lamp and base. Tighten the screw and let the glue dry with the clamps on.

Finally, sand everything down to 240 grit. Wipe any dust off with a paper towel and apply oil with a sponge. After the oil has dried, sand wood with 240 grit sandpaper lightly in the direction of the wood grain and apply oil again. Glue the plastic feet with hot glue and stick a label with power rating on the bottom. You now have a perfect lamp for your desk.

13

How the wiring is 'hidden'

14



When drilling, be aware of the cable

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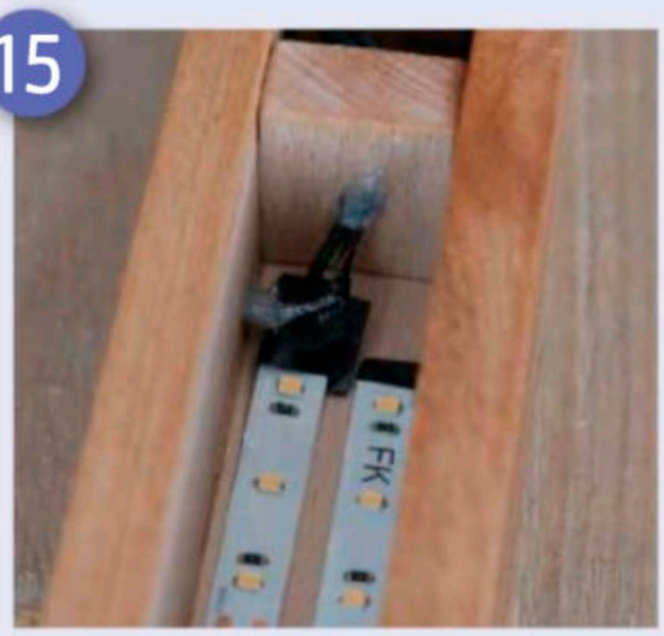
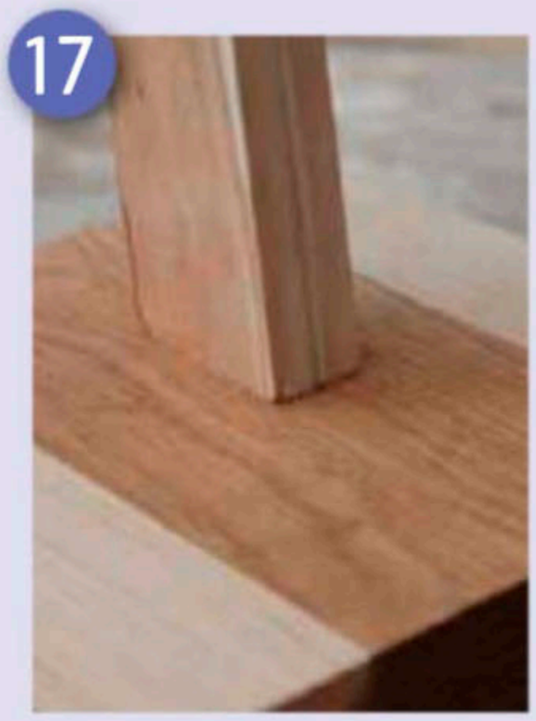


Cut two pieces of 25cm LED strip and stick in place

16

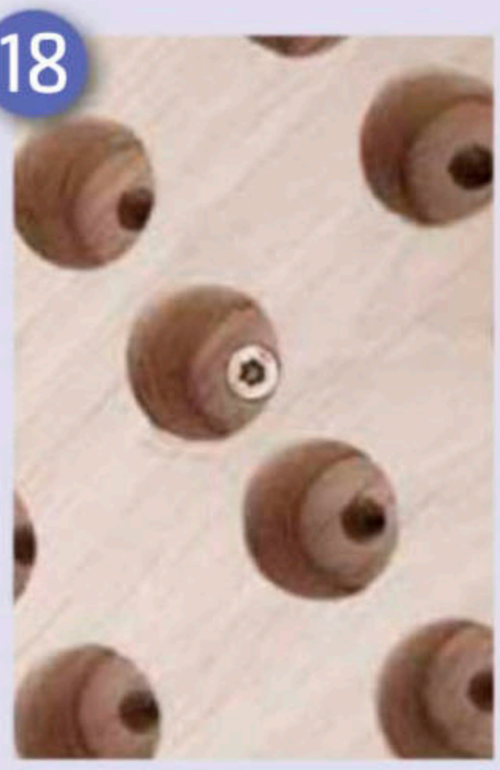
Test if the lights work

17



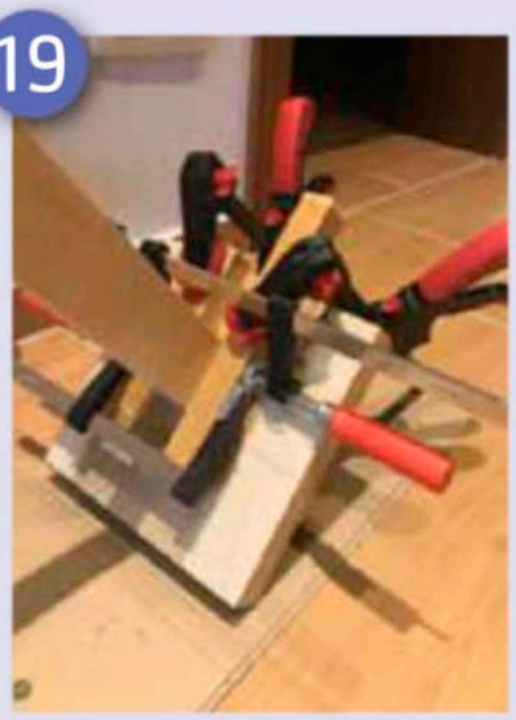
Connecting the base to the lamp

18



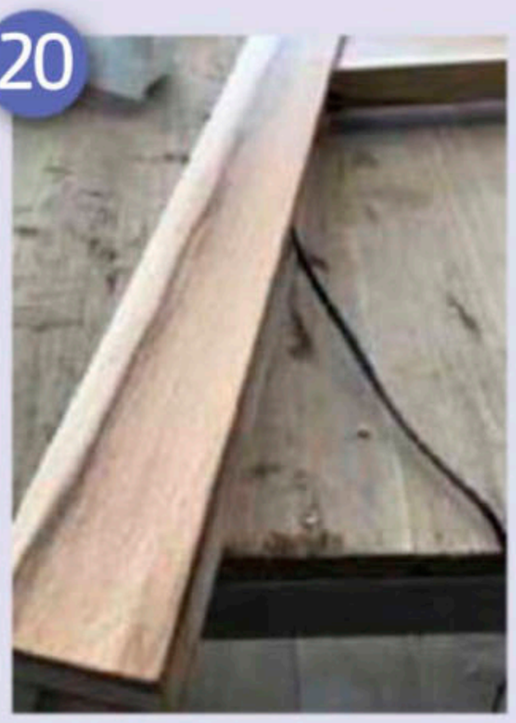
Drill a hole for the screw

19



Tighten the screw and let the glue dry with claps still on

20



Sand every part down to 240 grit

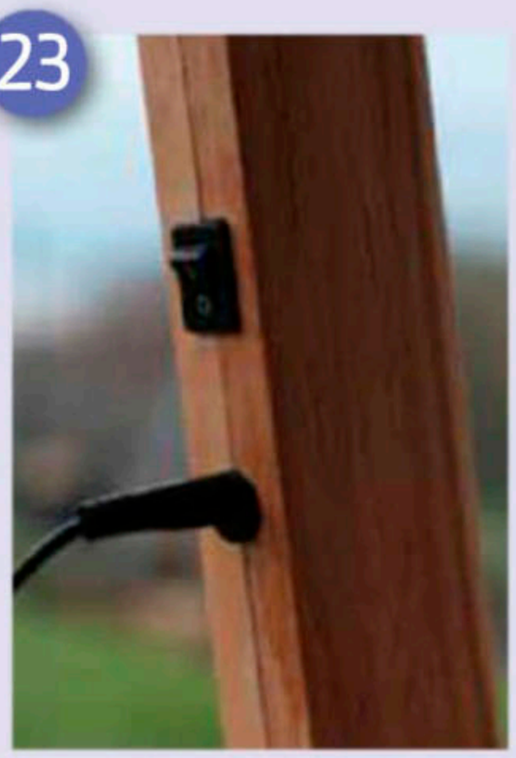
21

Glue plastic feet onto the base

22

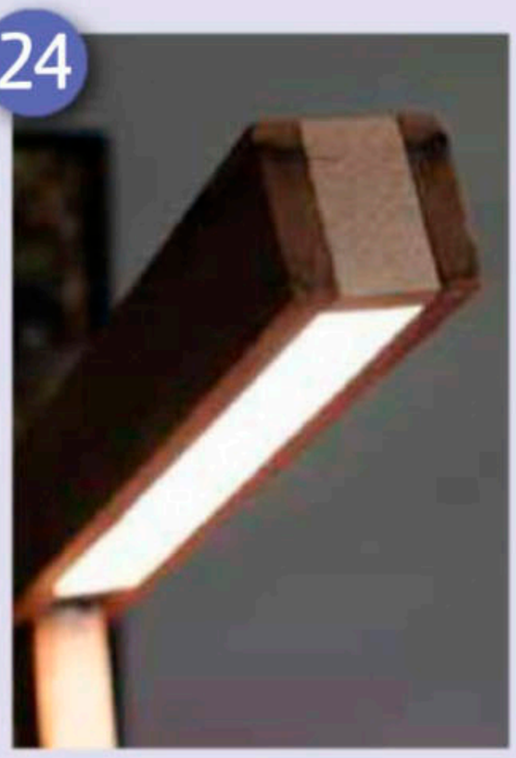
How the lamp looks with the power supply

23



Close-up of the switch and power sockets

24



The lamp emits a great soft light

buy the best paint you can afford. It'll go on easy, offer the best coverage, and last a long time. Plus, you'll be able to wash off grubby fingerprints without taking off the paint. And the whole painting job will go quicker and easier, and look better in the end.

When painting a room, don't bother lugging all the furniture out of the room. Instead, push all the furnishings to the centre of the room and then cover it with plastic sheets that are taped at the bottom. This will protect the furniture from paint drips and splatters, and also from all the sanding dust.

Use tinted primer

Before the pros paint walls, they fill holes and patch cracks with joint compound. But if you paint directly over the patched areas, the compound will suck the moisture out of the paint, giving it a flat, dull look; a problem

Before the pros paint walls, they fill holes and patch cracks with joint compound

Purchase the best brushes you can afford, clean them well, and they'll last you a lifetime. A cheap plastic brush is going to make it look as if you smeared paint on the wall with a rake. And the bristles will fall out into the paint.

Buy paintbrushes which cost a bit more than standard brushes, but are much more durable and apply paint very smoothly. A quality 2½-inch wide angled sash brush is an excellent all-round paintbrush. It's versatile and you can wash and reuse it until the bristles wear down to a nub. It is also important to

Purchase the best equipment you can afford, clean them well, and they'll last you a lifetime

called 'flashing.' And those spots will look noticeably different than the rest of the wall. To avoid seeing patched areas through the finished topcoat of paint, it's important to first prime the walls.

However, instead of using white primer straight from the can, pros tint the primer with a little grey paint or with the colour of the finish paint. Tinted primer does a better job of concealing patched areas and covering up the old paint colour. As a result, the finish paint coat will be more vibrant and may require fewer coats. This is especially true when painting over colours like red or orange, which could require three or more coats of topcoat, if you don't first apply a tinted primer.

Press tape with a putty knife

Painter's tape is an indispensable part of every paint job, especially when masking off wood trim. But nothing is more discouraging than peeling off the tape only to discover that paint has bled through the tape and got all over trim. To avoid the pain-in-the-neck chore of scraping off the errant paint, do a thorough job of adhering the tape before you start painting.

Apply the tape to the wood trim, then run a putty knife over the tape to firmly press it down for a good seal. That'll stop any paint bleeds. And be sure to use true painter's tape, not masking tape. Masking tape leaves behind a sticky residue that's hard to clean off. Plus, paint can cause masking tape to buckle and wrinkle, which lets paint seep beneath it. Painter's tape can be left on for days (some types up to two weeks) and still peel off cleanly.

Eliminate brush and lap marks

The tell-tale sign that a room has been painted by a novice DIYer, not a pro, is that there are visible lap marks in the finished paint coat. The secret to a finish that's free of noticeable lap marks and brush strokes is mixing a paint extender (a.k.a.: paint conditioner), into the paint. This does two things: 1) It slows down the paint's drying time, giving you more time to paint over just-painted areas without getting ugly lap marks, which happens when you apply fresh paint to dried paint. 2) Paint extender levels out the paint, virtually eliminating brushstrokes. Pros use extenders when painting drywall, woodwork, cabinets, and doors. Read the can's label to determine how much extender to add to your paint. If the paint is especially thick, or if you're painting in very cold weather, more extender can be added.

Scrape a ridge in textured ceilings

When painting along the top of a wall in a room with a textured ceiling, it's almost impossible not to get paint on the ceiling bumps. Pros have a simple solution: Run the tip of a slotted screwdriver around the perimeter of the ceiling, scraping off a little bit of the texture. The screwdriver creates a tiny ridge in the ceiling, which the tips of your paint bristles naturally go into. Now, you can cut in around the ceiling without getting paint onto the ceiling. And you'll never even notice the missing texture.

Use canvas drop cloths

Professional painters don't use old bed sheets as drop cloths, and neither should you. Thin sheets won't stop splatters and spills from seeping through to your flooring. And don't use plastic sheeting either. While plastic does contain spills, the paint stays wet for way too long time. And if you step in wet paint, you'll end up tracking it throughout the house. Plus, wet paint on slick plastic becomes very slippery.

Use what the pros use – canvas drop cloths. They're more expensive, but canvas isn't slippery, it absorbs splatters, and it's durable enough to last a lifetime. And unless you're painting a ceiling, you don't need a jumbo-sized drop cloth to fill the entire room. A canvas cloth that's just a metre or so wide and runs the length of the wall is ideal for protecting the floor.

Finish one wall before starting

Most DIY painters cut in all the room corners, and then go back and roll paint onto the walls, but that's not the correct way to paint a room. Pros get a seamless look by cutting in one wall, and then immediately rolling on the paint before the cut-in sections dry. This allows the brushed and the rolled sections to blend together beautifully.

Also, cover your paint bucket, tray, or container with a damp towel when switching between brushing and rolling; that'll keep your paint and tools from drying out when not in use.

Scrape (don't tape) windows

When painting windows, don't bother taping around the window frame and grill. That takes too long time and paint usually ends up on the glass anyway. Try this pro trick instead: As you paint the window, let a little paint lap onto the glass. Once it's dry, simply scrape it off with a razor scraper. Just be careful not to slice through the paint bond between the wood and glass. Otherwise, moisture can seep into the wood and cause rot.

Mix paint in a bucket

When you buy two or more cans of the same colour paint, guess what? They're almost never the same exact colour. That's because paint colour varies very slightly between cans. And that small difference can be glaringly obvious if you open a new tin halfway through a wall. To ensure colour consistency from start to finish, pros mix their cans of paint into a large bucket, a technique known as 'boxing' paint. Then you can paint directly out of the larger bucket, which eliminates the need to pour paint into a roller tray.

Some pros then paint directly out of the bucket. This eliminates the need to pour

paint into a roller tray, though the heavy bucket is harder to move.

It's smart to have a couple of clean, empty buckets on hand when painting because freshly shaken paint doesn't stay freshly shaken for very long. And you can't bring settled paint back to life with a stir stick alone. So, you must pour paint back and forth between two buckets until you've mixed in the solids that have collected at the bottom of each can. That's the best way, and really the only way, to ensure your paint is properly and thoroughly mixed. And if you have paint in several different cans, mix those too to ensure colour uniformity.

Wash roller covers

Odd as it may sound, it's important to wash brand-new paint-roller covers before using them to spread paint. Pre-washing gets rid of loose bits of fuzz that inevitably come off once you start painting. Wash the covers with water and a little bit of liquid soap, then run your hands up and down the covers to pull off any loose fibres, a practice called preconditioning. And you can start using the roller covers right away; you don't have to wait for them to dry.

Take off those electric plates

This is a no-brainer. Instead of laboriously masking off or cutting around electrical outlet plates and switch plates, grab your screwdriver and take them off. Then you'll be able to quickly and easily paint around each electrical device without making a mess. Just be sure to keep track of all the screws, so you can put the cover plates back on once the paint dries.

Give yourself a good set

In painter lingo, a bad set is when you're in a physically bad position while painting. For example, maybe your ladder isn't quite close enough, or you're in an awkward spot with your brush. The good news is that most bad sets can be are avoided. Just climb down and move the ladder. Sure, it's annoying, but it's not as annoying as falling into your paint bucket because you were hanging off your ladder. And sometimes a bad set can be resolved by moving an obstacle. If the refrigerator is forcing you into a tough painting position, stop and roll it out of the way.

Light it up

Here's another painter term for you: holiday. That's when you miss a spot without realising it. It's easy to do, especially with similar colours or rooms with bad lighting. So, get yourself a good bright work light and use it to check your work, either as you go or when you finish a section. Holidays typically occur around the edges of a room, where you used a brush instead of a roller. Holidays are easy to fix when you're still working, but much more annoying after you've cleaned up and put everything away.

Paint won't bond to greasy, dirty, dusty surfaces, such as kitchen walls above a stove, mudrooms where kids kick off their muddy boots, or areas around light switches that get swatted by dirty hands. In those cases, use a degreaser to clean the surface prior to painting. Degreasers, which are also called, deglossers, cut through grease and grime to allow better paint adhesion. Be sure to read the label and follow directions because this stuff is potent. And wear rubber gloves and eye protection.

Start with a loaded brush

Pros take a 'load and go' approach to painting. They load the bottom few centimetres of their brush bristles with paint and then tap each side of the brush against the inside of the can. That knocks off heavy drips and prepares the brush for painting. By contrast, homeowners often take a 'load and dump' approach: They dip the brush into the paint, then drag the loaded bristles along the sides of the container, wiping off most of the paint. The result is a brush that is too dry and has too little paint.

Push paint to avoid runs

When your brush is loaded with paint, it's easy to create drips and runs by applying too much paint in room corners or along wood trim. To avoid those issues, start brushing about 2cm away from the cut-in area. As the brush unloads paint, move closer and slowly drag the brush along the trim or corner. Let the bristles gently push the paint against the cut-in area where the walls meet. You may have to do this a couple of times to get complete coverage, but it'll avoid excess paint collecting along woodwork and in corners.

When you're ready to quit for the day, but haven't finished painting, leave the roller cover on the roller frame, then soak the cover in paint. Wrap the cover in a plastic bag to create an airtight seal. That'll keep the roller cover fresh until you return to painting the next day. If you can't return to painting for several days, pull the roller cover off the frame and toss it out. Then use a new roller cover the next time.

As for your brushes, rinse them clean with warm, soapy water if using water-based paint. Use paint thinner to clean off oil-based paint. Then rake the bristles out straight with a brush comb and then slip the brushes back into their original covers or wrap them in newspaper.

When you buy two or more cans of the same colour paint, guess what? They're almost never the same exact colour

HOW TO BUILD A CORNER CABINET

Want to make a stylish corner cabinet for your home? Then read on for detailed instructions.

1A

Tools required

- Table saw
- Planer/thicknesser
- Portable guided circular saw or jigsaw
- Router (handheld)
- Biscuit cutting machine
- Battery driven screwdriver/drill
- Sanding machine such as random orbital sander
- Router table or spindle machine
- Several router cutters including a set of cutters for making rail and style doors (plus panel raising cutter), profile cutters and straight copying cutter
-
- Files

Hardware needed

- 8 x Hinges – Brass butt 64mm
- 4 x Door stops – May combine with catches
- 4 x Door catches – Solid brass double ball
- 2 x Door locks (optional)
- 2 x Sliding bolts (optional)
- 4 x Door handles
- Clear glass clips – 7mm foot (as required)
- 2 x Top door panes – 4 x 270 x 968mm (Safety)
- 2 x Shelves top cabinet – 6mm Safety (see Drawing 2)
- Biscuit joiners #20 (as required)
- 12 x Shelf supports – 5mm diameter with clear plastic

Looking at the pictures of this cabinet it may appear to be a challenging project. Depending on the level of skill of a person, this may be true, but for a somewhat experienced woodworker it may turn out to be a nice experience to tackle it. Be comforted that the way it is constructed, and utilising the drawings and descriptions, it is less daunting than the overall appearance my suggest. The article will not dwell on basic woodworking techniques, such as preparation of rough wood to usable pieces, making of raised panel rail and style doors, utilising a biscuit cutting, etc.

Because I was asked to quote for making the cabinet by a potential customer to build such a cabinet, I made sure to adopt a design and construction that would not waste time on all sorts of complications. The top cabinet gets at least two glass shelves and the bottom cabinet one wooden shelf.

The cabinet is constructed as a so-called semi-solid furniture; thus, it is important to select a wood that is available in both chipboard (or MDF) veneer and solid wood. Not all hardwoods have equivalent veneered boards. In this case the client selected kiaat.

I endeavoured to utilise only one veneered board (always supplied in 2760 x 182mm sizes), because it is expensive, but one shelf could not be cut out of the board. This restriction requires some compromise as will become clear later. The rest of the wood will be solid wood to match the veneer, and some kind of cheaper, secondary wood. Either veneered chipboard or MDF can be used, the latter is

however about 20% heavier and more expensive. Another saving that can be made is by using single face veneered board. Because the back outside of the cabinet faces two walls it is like the back of any cupboard. Glass doors are appropriate for the top cabinet because it is intended for display, and two glass shelves will be required. Down lighters will enhance the display.

The overall sizes of the cabinet, shown in elevation and section, is given in Drawing 1, while Pictures 1 A, B and C illustrate the final product.

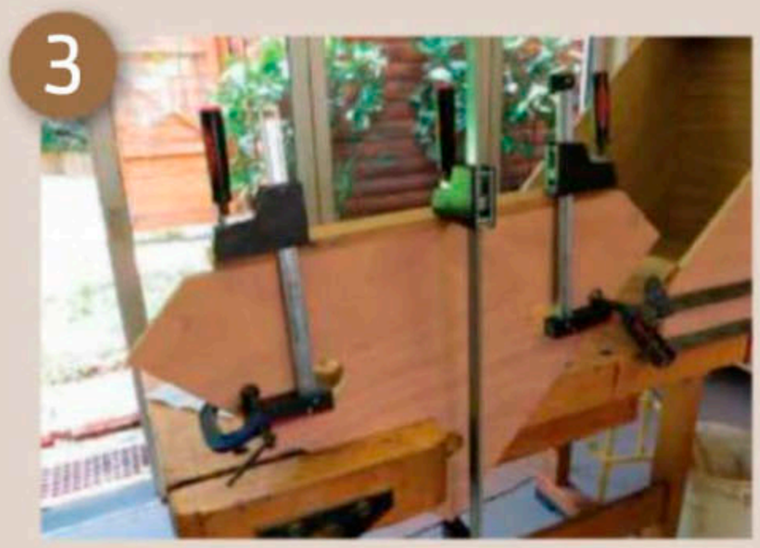
Once a decision has been made on the type of wood and associated veneer board the solid wood and one veneer board can be bought. It is always advisable to have the board supplier do the cutting of the board because it is too large to handle alone, not forgetting the size of workshop required. It is right here where a small compromise must be made. Looking at Drawing 2 you will see that some components overlap, and to point out another matter -people that cut boards for customers are unable to cut at an angle! This is what you do. Ask your supplier to make cuts Q–Q, Y–Y and Z–Z and then cut panels C, D, E and F to exact sizes. Take the balance of the board home and process the 'triangular' panels M1–4 and S yourself as will be explained later.

Making the top and bottom

The two cabinets are identical, except that the top cabinet is higher. Hence the process of making them is also virtually identical. The carcases will need items A, B, G, H, P, Q machined out of solid wood. Make them a bit oversize so final cutting can be done during assembly. The veneered panels C, D, E, F must be cut exactly to the given sizes. Let us deal with the panels M1–4 and S first. Drawing 2 shows that only panels M3 and M4 can be cut unscathed out of the full board. M1, M2 and S will need some fixing. This may look like an impossible way out, but if an extra board suits your taste and pocket better, go for it. Make the missing corners from pieces 1–3 out of the left-over board in the upper right hand corner. These pieces are joined to M1, M2 and S utilising biscuits. It is not unholy to join veneered boards this way, it is almost like solid board lamination. If the jointing is done neatly with sufficient biscuits and glue it is strong and not unsightly. Because these joints are on the long grain and besides more or less out of sight, it will go almost unnoticed. It is important to cut all five panels about 3mm oversize all-round, using a jig saw or guided circular saw.

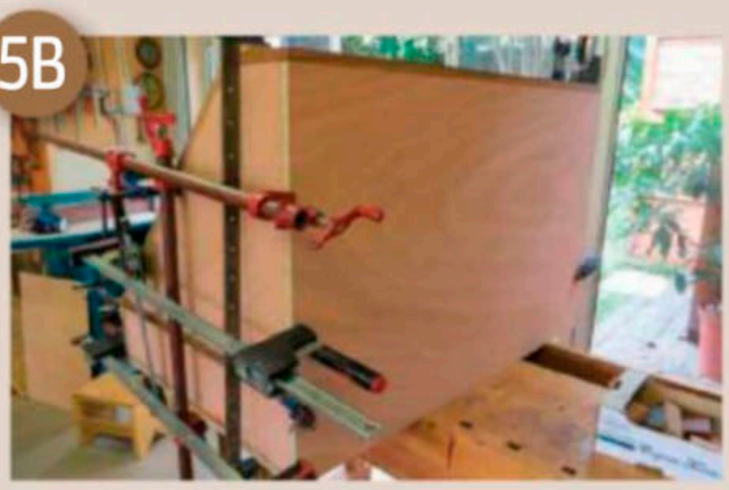
A pattern is required to shape items M and S. Use a piece of 6mm thick MDF, carefully laying out the sizes of M as shown in Drawing 2 and Picture 2. Very carefully saw out the pattern and file or plane exactly to the lines. It is imperative to take notice that the sizes all round be checked on the pattern and also the widths of panels C, D, E and F. The oversized panels M1-4 and S can now one by one be copied to size using the pattern and a straight copying cutter on the router. Stick the pattern down with double side sided tape, hot glue, or pin nails and trim following the pattern.

The four panels C, D, E and F must now receive 5mm diameter shelf support

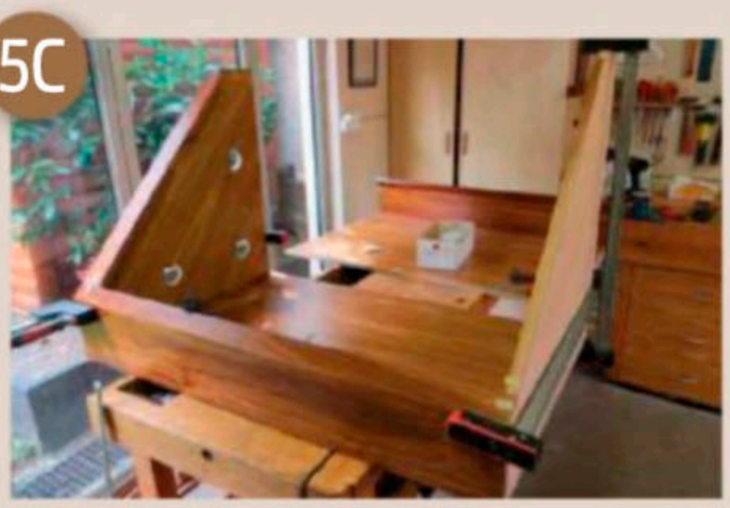


If you do not have a commercially made jig to index the holes you can make your own. Find two (I prefer even three) pieces of 16mm thick chipboard, ply or MDF of about 50mm wide by 600 to 800mm long and laminate these on top of each other with glue, thin double sided tape, or pin nails. Along a line 25mm from each side drill 5mm diameter holes right the stack, these spaced according to the up/down adjustments that the shelves require. I prefer 30mm spacing. Best do this on a drill press to assure perpendicular holes. To use the jig clamp in position, adjust a 5mm drill bit to go through the stack and protrude 8mm on the other side mark the depth with a bit of masking tape. Remember to use one end of the jig as a reference, say from the top of a panel.

5B



5C



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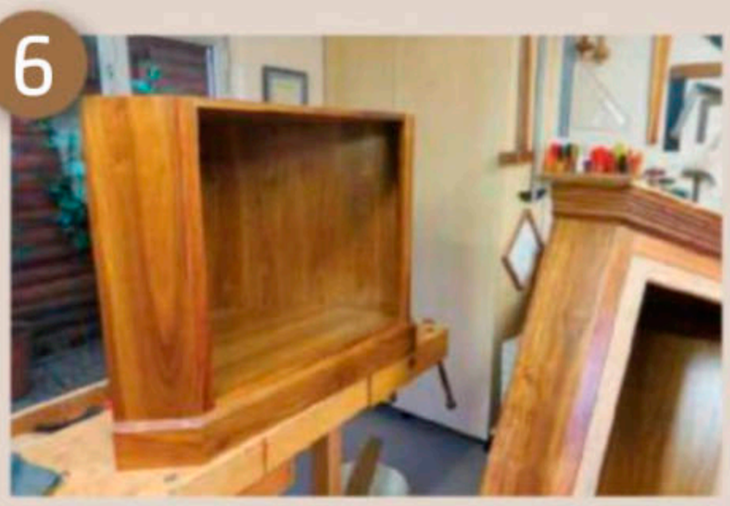

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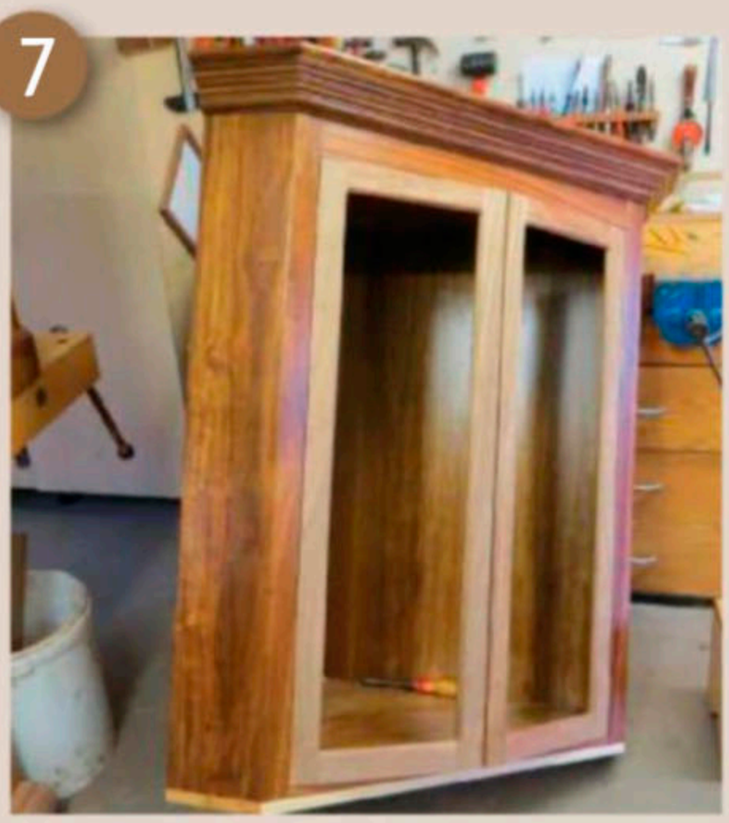

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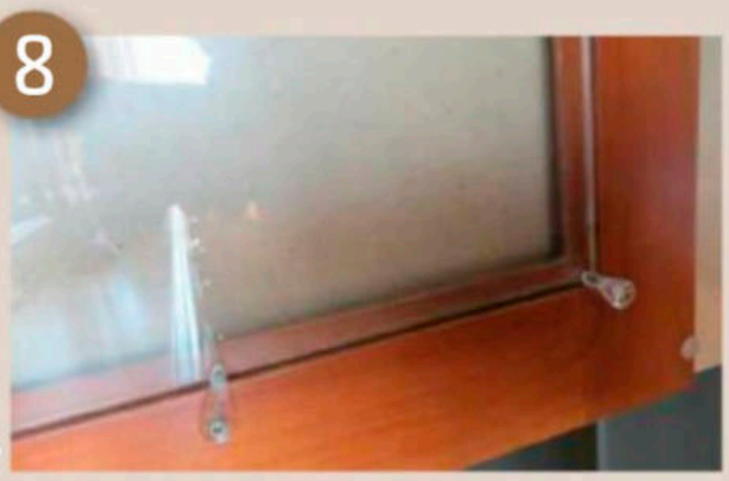


holes spaced to your taste. The holes may be drilled about 60mm from the vertical edges. These small holes are not visible in all pictures but is visible in Picture 5A. The outer vertical edges of panels D and F needs some finishing with veneer tape.

The solid wood pieces A, B, G and H need bevelled edges down the vertical edges on one edge each where they will join. While cutting the bevels, it is the important to cut these pieces to exact widths. Set your table saw blade at an angle of 67,5° and cut the four bevels. Next cut these four items to exact lengths of 635mm and 1114mm, respectively.

Next biscuit slots must be made in preparation of a dry assembly. The spacing and orientation of these are left to your own discretion:

Bottom cabinet:

- Where C meets D (90° but joint)
- Where A meets C - LH and A meets D - RH (90° butt joints)
- Where A meets G – LH & RH (135° but joint both sides)
- Where C and D meet M1 and M2 (90° but joint)
- Where both LH and RH A's meet M1 and M2 (90° but joint)
- Where 2 x P (18 mm thick edges) meet M1 and M2 on 705 mm front edges of M1,2 (90° but joint)

A dry assembly of all the items of the bottom cabinet can now be done. This will confirm that all biscuits line up properly and the assembly is successful. Items P will still be a bit too long, but will be cut to length after final assembly to achieve a tight fit between items G.

During dry assembly it is a good opportunity to "practice" your clamping strategy. We all know that one can get very anxious when clamping starts to go wrong during wet joint clamping, especially if biscuit joints refuse to close! Look at Pictures 5A and 5B at some clamping strategies.

Top cabinet:

- Where E meets F (90° but joint)
- Where B meets E – LH, and B meets F - RH (90° but joints)
- Where B meets H – L & RH (135° but joint both sides)
- Where E and F meet M3 and M4 (90° but joint)
- Where both LH and RH B's meet M3 and M4 (90° but j
- Where P (18mm thick edges) meets M3, and Q meet M4, both on the 705mm front edges of M3,4 (90° but joints). Note that Q buts with the 67mm side vertical and flush with the top of M4.

A dry assembly of all the items of the top cabinet can now be done. Items P and Q will still be a bit too long, but will be cut to length after final assembly to achieve a tight fit between items H.

After disassembly of both dry assembled carcases, it is prudent to cut the recesses for butt hinges on the edges of items G and H. See the section on making the doors. The vertical 67mm edges of item Q can also be biscuit joined. Cut the slots at the 67mm edges so that it does not break through at the bottom edges but clear through the top edges. The top ends of items H must also be slotted but the slots must not stretch down more than 65mm, although it will break out at the upper edges. This will make it possible to tap item Q in place after wet clamping. I hope it makes sense!

The cabinets may now be assembled with glue following your clamping strategy. Cut three times items P and Q to fit tightly in place and glue them in place. Finally sand the cabinets to ready it for finishing. However, wait with finishing until the decorative strips have been attached.

Over and above the base and cornice, decorative strips are also attached to the cabinets. There are two of these as can be seen in Pictures 1A, B and C.

One strip runs side to side just above the upper doors and the other over the line where top and bottom cabinets meet. These are items T, U, AB, and AC. T and U are actually attached to the top cabinet only but protrudes by 10mm over the bottom cabinet, neatly closing the gap between the cabinets. This allows the cabinets to be separated for transportation. The strips may be profiled on both upper and lower edges to present a symmetrical section (see Picture 8). Where T and U, also where AB and AC join, 135° mitres need be cut. the strips are attached with glue and pins.

Making the base

The base consists of items I, J, K, L, M, N and O as shown in drawing 3. Items I and J may receive a profile on the top outer edges (e.g., classic profile) before joining is done. Because it is difficult to profile short pieces, the items I is done with double length plus a bit extra. The 90° angled pieces K and L do not get profiled. The sizing of the lengths is important because the inner edges of items I and J must sit about 2mm under the front line of the bottom cabinet while the outer edges of K and L must sit flush with the outer sides of C and D. The joints are all done with biscuits, including the 135 ° joints. When the base is glued up and the glue dried, the 20 x 20mm coupling strips (M, N and O) can be attached along the top inner edges of the base. Glue and 30mm airgun pins are sufficient, or it may be screwed to fix them, if you prefer. A number of vertical holes are drilled along the strips to eventually screw the base from below to the bottom cabinet. The base may be sanded and finished ready for mounting below the bottom cabinet.

Making the cornice

This item looks daunting to make but it is in fact just stacking a number of 20mm thick by 40mm wide profiled strips nailed and glued together. Drawing 6 shows the anatomy of the cornice. Normally I prefer only three layers of strips but in this case, it is a bit more elaborate with four layers. One may even settle for two layers, but it becomes less imposing. It is up to your preference, and so is the particular profiles, however the principal of making it is the same.

First mould the chosen profiles on all the 20 x 40 strips V and W. Finish sanding the strips because it is hard to do this after making a cornice. Cut the elements generously longer than required and then stack, glue, and pin the lengths together, always from the 'top' so it will not show. It is a good idea to scribe lines underneath the moulded strips to help line up the next layer.

The cornice runs only along the two front angled lengths and the front part. Hence it requires only two 135° joints. Set your saw at 45° and make the cuts on the two angled pieces. These will still be longer than required and will later be cut at 90° after careful measurement. Cut the one end of the front piece at 45°. Now scribe a line underneath the bottom strip about 5-6mm away from the front edge. This will determine the overhang of the front of the cornice over the front of the cabinet (Drawing 6). Take a measurement over outer corners of items H (should be very nearly 801mm). This critical measurement must be transferred onto the scribed line, starting where this line intersects with the already angled cut on the one side and down the line for the distance of 801mm. This is where the second mitre cut must intersect the scribed line. I will leave it to your ingenuity to figure out how to establish this cut. A tip is to go a bit too long and slice with two or three cuts to the exact intersection. Always cut slowly in case a nail is hit. I found that TC blades handle this well if done slowly. Of course, if one is careful in making up the stacks one can place the nails out of harm's way.

The three pieces of cornice are joined with #20 biscuits. Cut the slots so it breaks out towards the 'inside' of the mitre, without going to near the profiled fronts. The point is that an angled 45° cut on a 40mm wide strip will break out both sides of the cut unless the centre line of the cut is moved sideways. Do not be concerned that the biscuits will protrude at the inside corners. Place the pieces on a flat surface first in its normal orientation and cut a slot in the bottom strip as described above, then turn it over to slot the upper strip. In this way each mitre will receive two biscuits. For safety clamp the pieces to avoid kick back. Dry fit each corner and then glue the joints with biscuits in place. Part of the biscuits will protrude in the inside of the corners, but this can be chiselled away afterwards. It is nearly impossible to apply clamps, so the best is to push the joints closed by hand and leave it to dry overnight. The outside corners must be tidied up along the profiled with sanding paper. Check the fit on top of the top cabinet and determine where and cut the two ends at the desired lengths.

Depending on the accuracy of your saw/ sawing one may find a gap somewhere. A sharp block plane usually is all that is needed to true op the mitre.

Making the doors

The doors shown in Drawing 7 indicate only the outside dimensions while the sizes in the cut list are intended for rail and style type doors using 3/8" cutters. The doors are full size (i.e., it will fit tightly in the openings). This allows for about 1mm to be trimmed away during fitting. If another type of doors or different cutters (e.g., ½"), are preferred, you will have to rework the sizes. Another alternative is to have the doors made to size and style by professional manufacturers, of which there are at least three in Pretoria. While I will not elaborate on the making of the doors, assuming this is within your skills, it may be necessary to say something about the installation of the glass panes. My preferred method is to cut away the outer lip of the groove all round to allow the glass to be dropped in. To do a really outstanding job one can make thin wooden strips (about 5 x 12mm in section) to fix the glasses in. These strips will require mitres at all corners and must be fixed by shooting headless pins through the 5mm edges. Plastic glass clips with a 7mm "foot" may also

be used which in most cases do an acceptable job (Picture 9). The bottom doors in my design are fitted with raised panels (sizes given in cut list)

The doors are all inset, i.e., they fit inside the carcase openings. The doors may be fitted with a variety hinges such as European (inset) hinges, butt hinges, or even piano hinges. I used solid brass butt hinges, which require recesses be made on the cabinet side pieces (G and H) and the door styles. Again, this is assumed to be within your capability and do not need elaboration.

Do not make the doors to final sizes until the cabinets are made. Inset doors need to be "sized" according to the final size of the openings inside the cabinets. The doors require to be planed (normally by hand!) to fit with a gap of about 1mm all round.

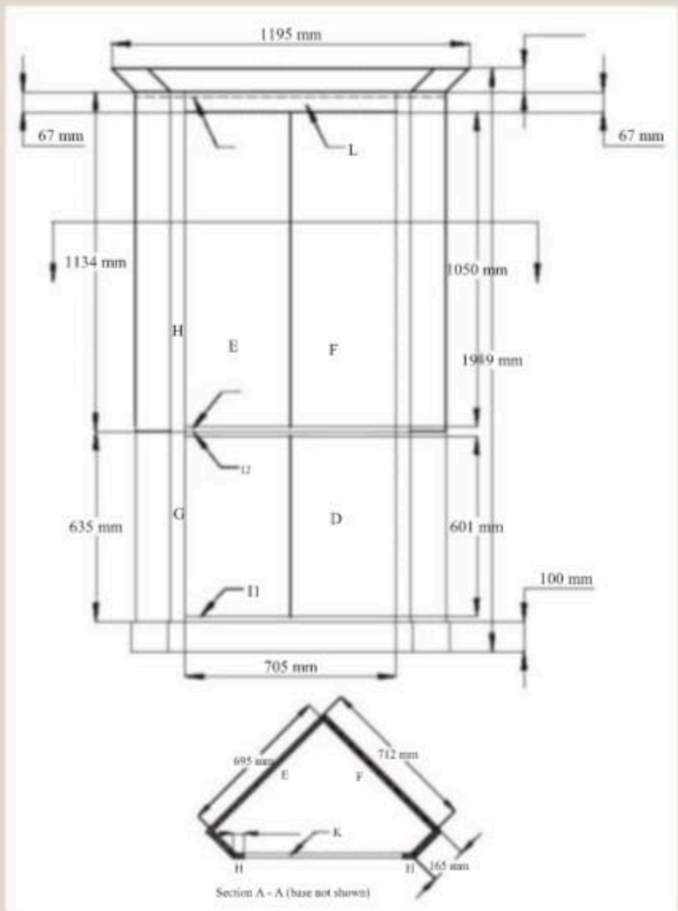
Doing the final assembly

The bottom cabinet is fitted with the base. The base is screwed (without glue) to the upturned cabinet. The base must be tightly clamped to the cabinet observing that the inner edges of the front pieces sit 2mm inside the cabinet front line and the two 90° angled pieces (K and L) fit flush on the outsides to the cabinet outer edges. Observe that there are no gaps between base and cabinet. If there are, as often is the case, remove the base and plane away the high spots. With a good fit done, the base can be screwed down onto the cabinet with 6 x 40mm screws. Thicker screws e.g., 8 x 40 will cause cracking in the end grain of the chipboard.

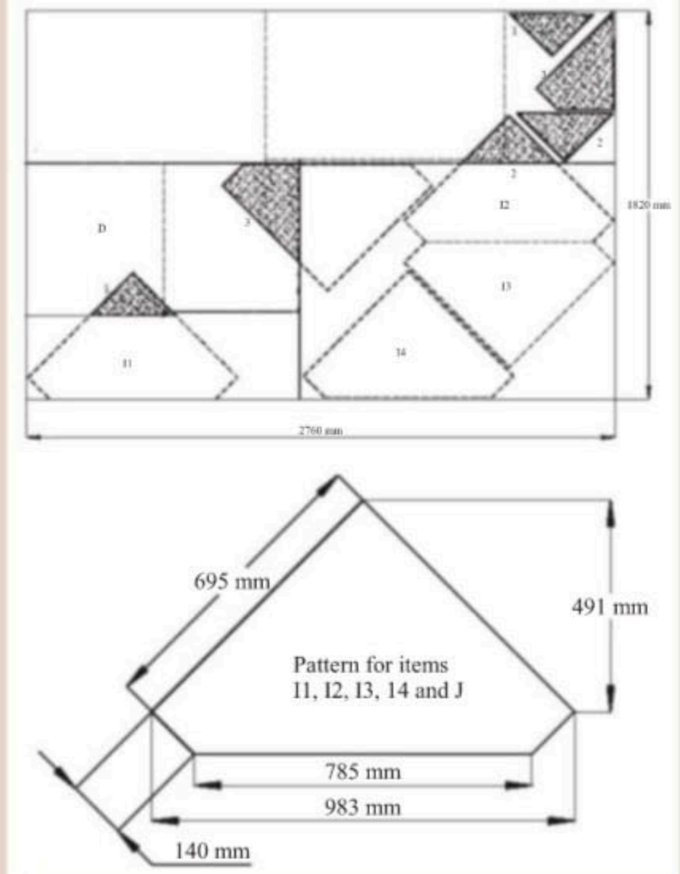
A similar process is followed with the cornice which sits only on the front of the top cabinet. The cornice bottom layer protrudes by 6mm over the front edge of the cabinet. It is also screwed down with 6 x 40mm screws.

Last, but not least (as the cliche goes), the doors can be fitted using the chosen kind of hinges. Needless to say, this must be done carefully to assure a good fit. The doors will require stops inside because there is nothing else to stop the doors from swinging inwards. In the case of butt or piano hinges catches is also necessary. If locks are required, then one door will need a sliding bolt.

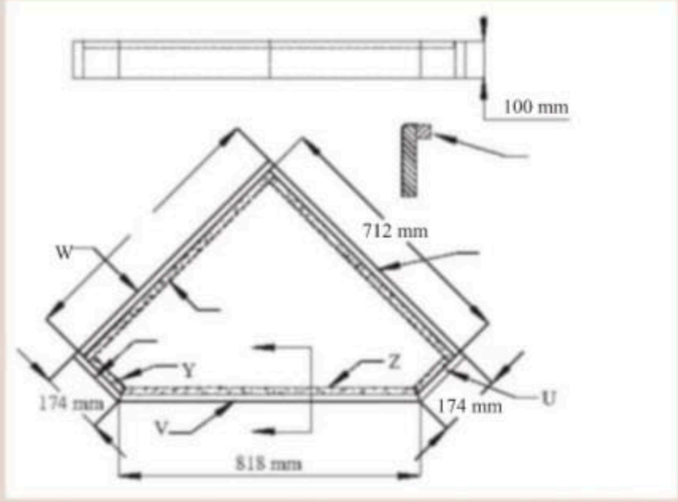
If downlights are to be fitted, the required holes must be drilled. With LED lights this is not necessary since they can be attached directly to the woodwork.



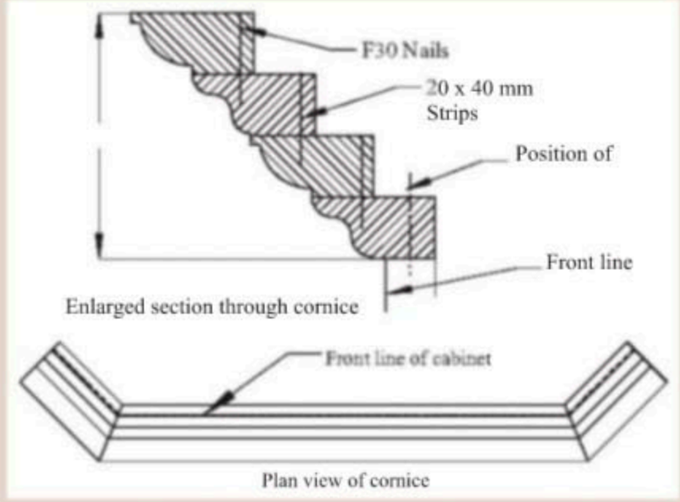
Drawing 1: Corner cabinet (doors, decorative strips and shelves not shown)



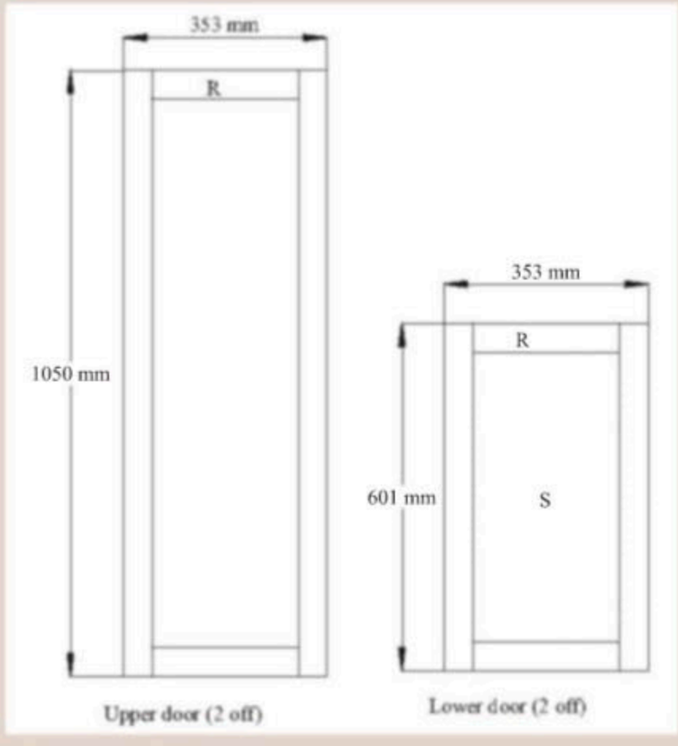
Drawing 2: Cutting layout for veneered panels



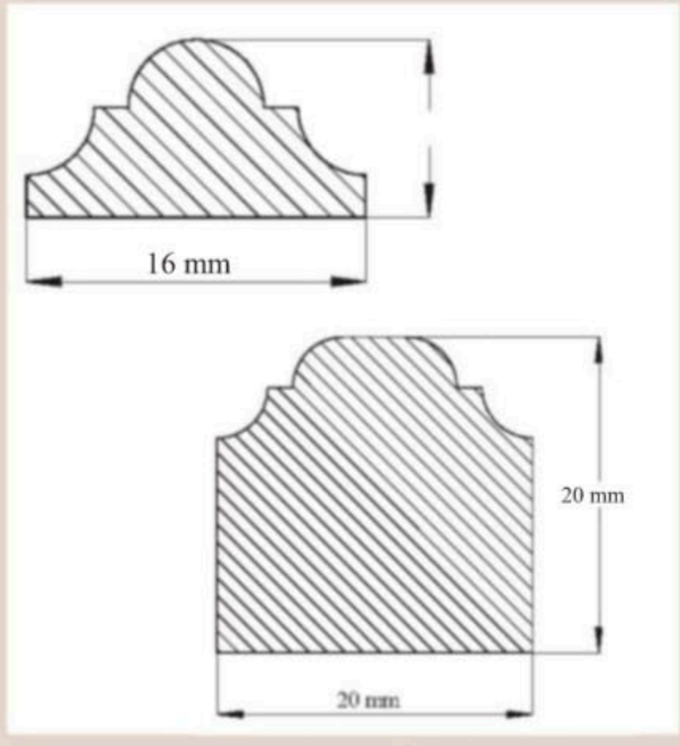
Drawing 3: Base



Drawing 4: Cornice



Drawing 5: Doors



Drawing 6: Examples of profiles for items M to P

For a high res version of the drawings and the cutting list of this project, email editorial@homehandyman.co.za

Refresh

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Daswellbeld 2026E

Sika's premium waterproofing system, Sikalastic®-560, proved to be a great success on a weeklong refurbishment project in Llandudno, Western Cape.

How to WATERPROOF A GARAGE ROOF

Apply a first coat of approximately 0.75kg/m²

The double-decked garage roof of House Apostle, which is also used as a seating area, needed waterproofing maintenance due to water seeping through weak areas. This is a common problem for homeowners, especially so when prior waterproofing systems are damaged, or failing with age. In this case, the old bitumen torch-on membrane was no longer watertight, so the owners were looking for new solutions to end their battles with leaks. To avoid having to remove the existing membrane, they sought a waterproofing product that could simply be applied over it. Sika were consulted for advice and concluded that the company's premium liquid applied waterproofing system, Sikalastic -560, was the appropriate solution. It must be noted, that in some cases the existing roofing system may be badly damaged and then removal of the existing system is unavoidable.

Sikalastic -560 is a one component, liquid applied roof waterproofing solution, based on Sika Co-Elastic Technology (CET). It is a cold-applied coating and is highly elastic and UV resistant. Popular with many homeowners for its seamless finish, it also facilitates easy application on the more complex detailing prevalent on many rooftops. Furthermore, its reflective coating contributes to a cost-effective reduction in cooling costs by enhancing energy efficiency in the house.

Always waterproof the detailing prior to doing the horizontal surfaces

Application

Surface preparation:

A thorough cleaning process began with removing all the paving and sand, and was followed by pressure washing the more stubborn dirt. After surface preparation, and prior to application, Sikalastic -560 was properly stirred for a minute, to achieve a homogenous mixture.

Roof waterproofing application:

1. Apply first coat of approximately 0.75kg/m² (for non-absorbing substrates) – 1.00kg/m² (for absorbing substrates) of Sikalastic -560 on a length of approximately 1m.
2. Roll in the Sikalastic Fleece-120 or Sika Reemat Premium and ensure that there are no bubbles or creases. Overlapping of the fleece is minimum 5cm.
3. Apply second coat of approximately 0.25kg/m²-0.5kg/m² coat right into the wet fleece to achieve the required film thickness. The entire application should occur while Sikalastic -560 is still liquid, wet on wet.
4. Repeat steps 1-3 until the roof area is waterproofed.
5. After the two coats are dry, seal the roof area with one or more additional coats of Sikalastic -560 (≥ 0.5kg/m² per coat).

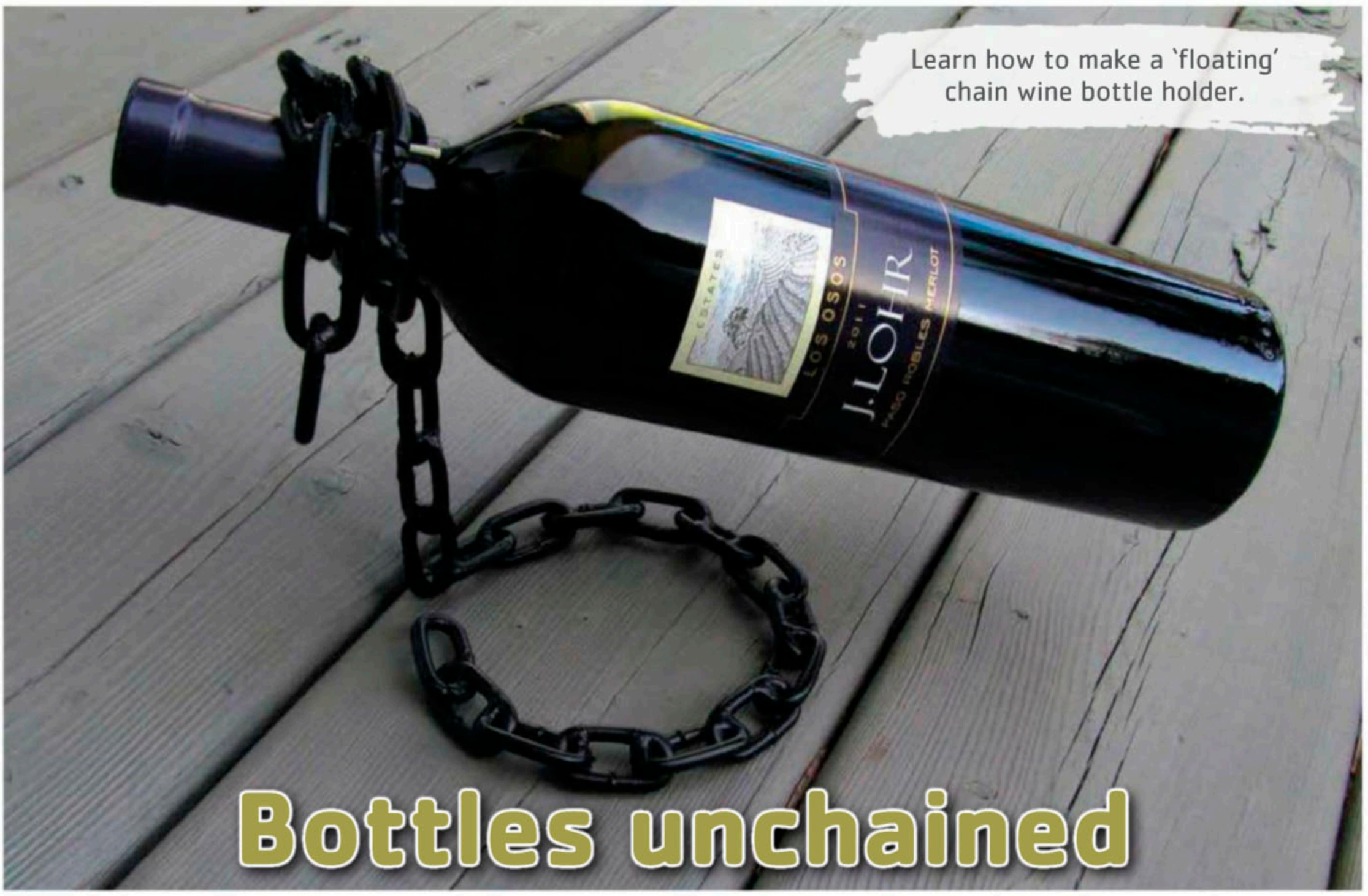
The waterproofing coating dried and cured

6. Note: Always waterproof the detailing prior to doing the horizontal surfaces.

Once the waterproofing coatings had dried and cured, the final paving was returned to place so that the roof could resume its dual role as a seating area. Not many challenges were encountered, but one of them was the sealing of the outlet pipes, given their complex geometry. However, since Sikalastic -560 was designed for roofs with many details, and can be used even when accessibility is limited, the outlet pipes were sealed without any major hassle.

The contractor, Claude Darries, was more than impressed with the one component and cold application properties of the product. He added that it was not only easy to use, but also had a seamless and flexible finish. "A contractors' dream."

For more information, call 010-823-8688 or visit www.sika.co.za



Bottles unchained

>> Mark Hurst

What you need

- Access to a welder
- A welding mask, gloves and appropriate clothing
- About a metre of steel chain; Do not use a galvanized metal chain (I used a chain with roughly 3cm long links; for anyone using the same sized chain I'll list the number of links that correspond to each measurement)
- Spray paint and clear coat
- An empty wine bottle

I hate buying things when I can make them myself, so when a family member wanted a wine bottle holder, I saw an opportunity to make something cool and improve my welding skills. I quite like the idea behind this sort of bottle holder. A chain (something not often associated with holding up an object all by itself) is turned into a solid support for a wine bottle.

Step-by-step guide

Step 1: Arrange about 45cm of chain (14 links) into a circle; I used the lid of a jar as a guide, then weld the links together.

Step 2: Drape the chain over an empty paint can or some other object so that part of the chain is almost perpendicular to the base. However, you don't want the chain to be straight up and down at a 90° angle. Rather, you want the chain to be offset slightly, at around an 85° angle.

Weld around 20cm (6 links) of vertical chain together. Pay special attention to the bottom link. If you want you can weld the bottom link at a bit of an angle, giving the stem a more curved look.

Step 3: Arrange the chain into a circle with a diameter of about 3,5-4cm at the top of the 'stem' you welded in the last step. Weld the circle and check to see if the bottle holder works with a larger, preferably empty wine bottle. Wrap the remaining chain around the neck of the wine bottle and weld the rest of the chain, including the dangling end.

Step 4: Clean up the metal. I then applied two coats of spray paint (I used semi-gloss black), and one light touch-up coat. Finally, I then applied two coats of clear coat.

When storing wine, you want it to tilt down so that the wine rests against the cork. This helps to keep the cork wet preventing air from seeping through the pores of the cork and helps preserve the flavour of the wine. However, this wine bottle holder is intended to be used for shorter periods of time, such as a dinner party.

1

For this project you will need access to a welder

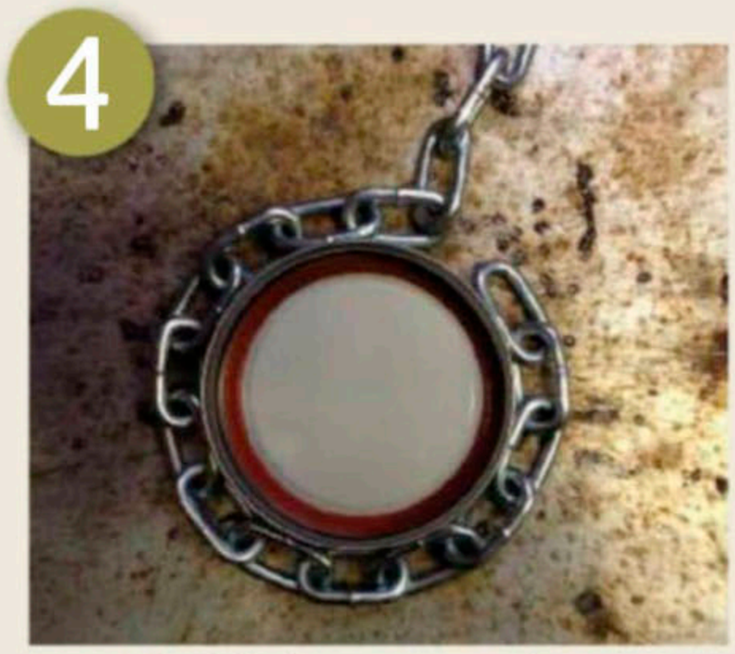
2

A welding mask, gloves and appropriate clothing are also needed

3

Arrange about 45cm of chain (14 links) into a circle

4



I used the lid of a jar as a guide

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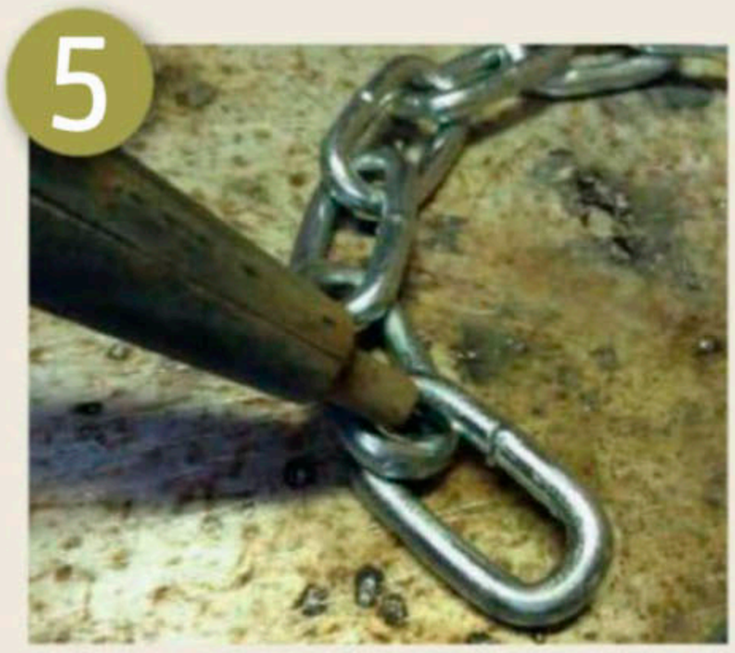

Weld the links together

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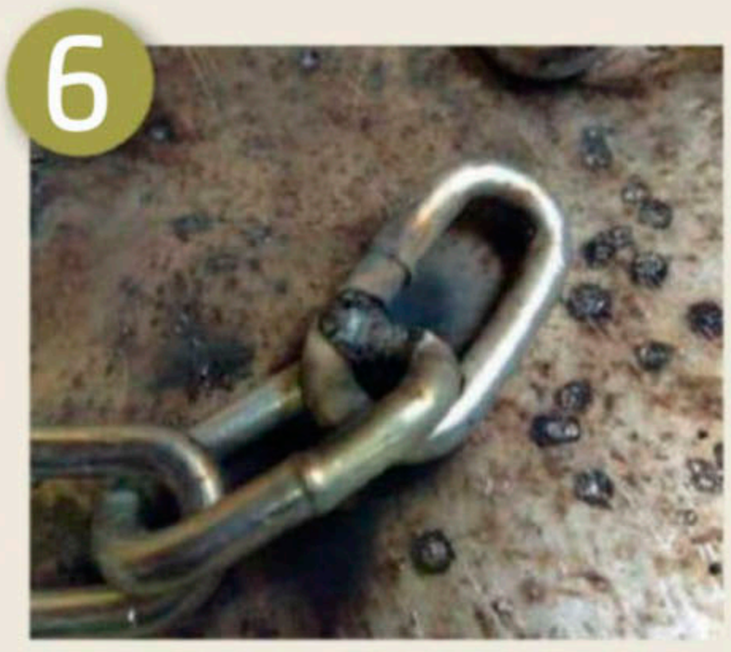
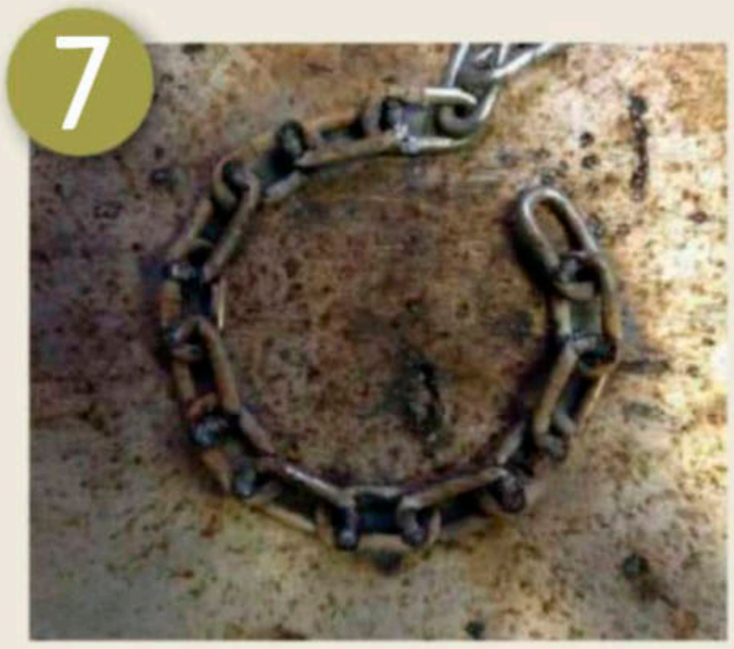


Close-up of the weld

7

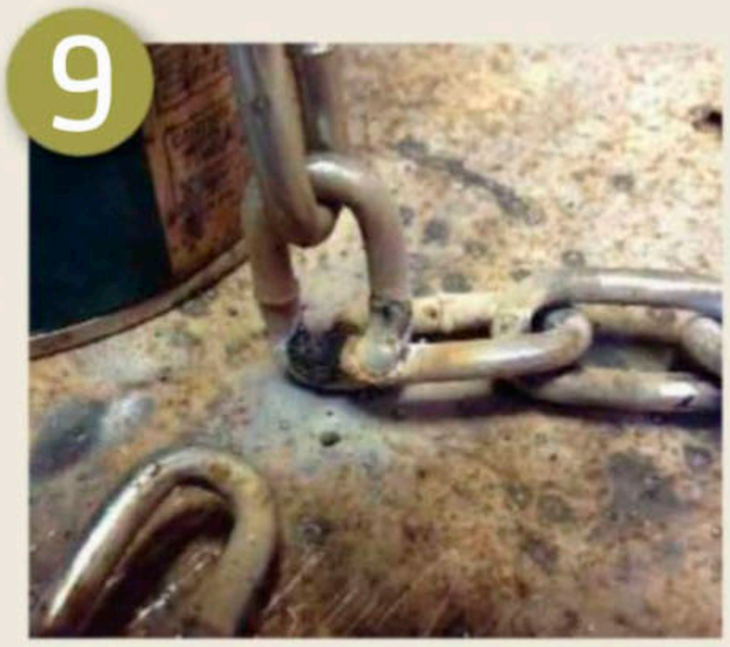


The welded circle

8

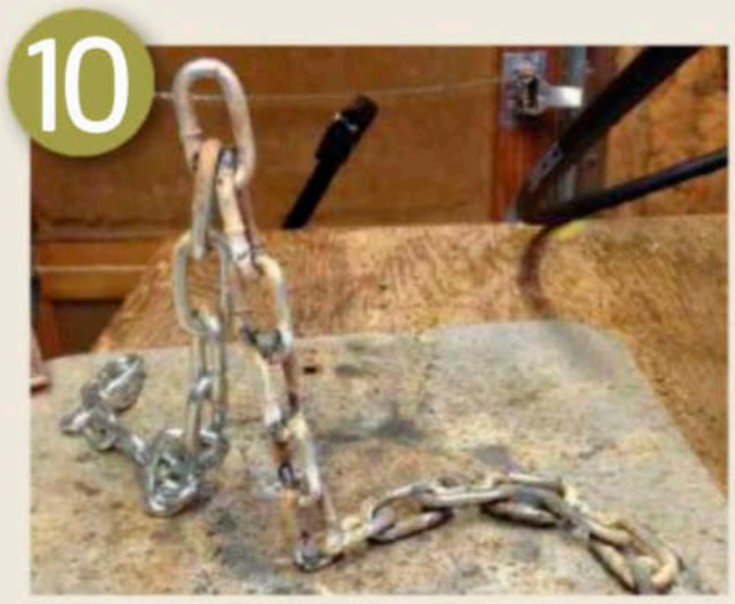
Drape the chain over an empty paint can

9



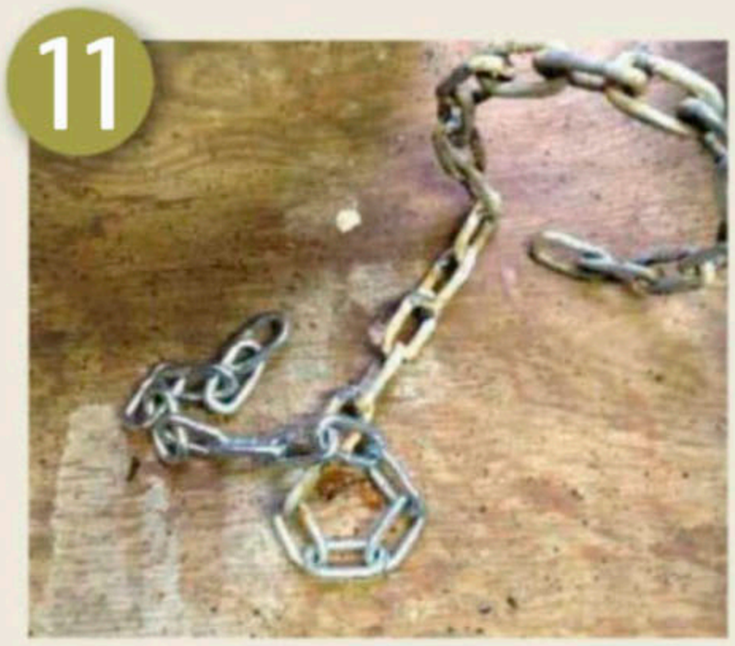
Pay special attention to the bottom link

10



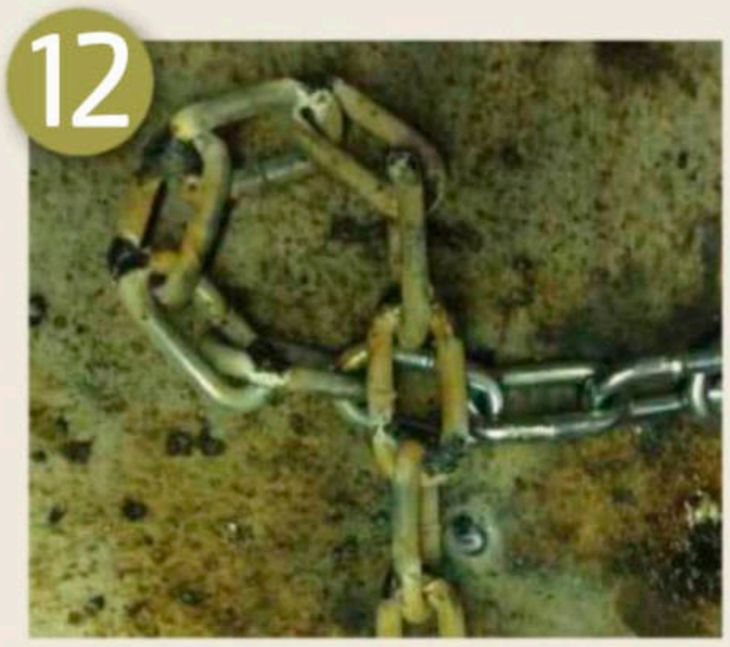
Weld around 20cm (6 links) of vertical chain together

11



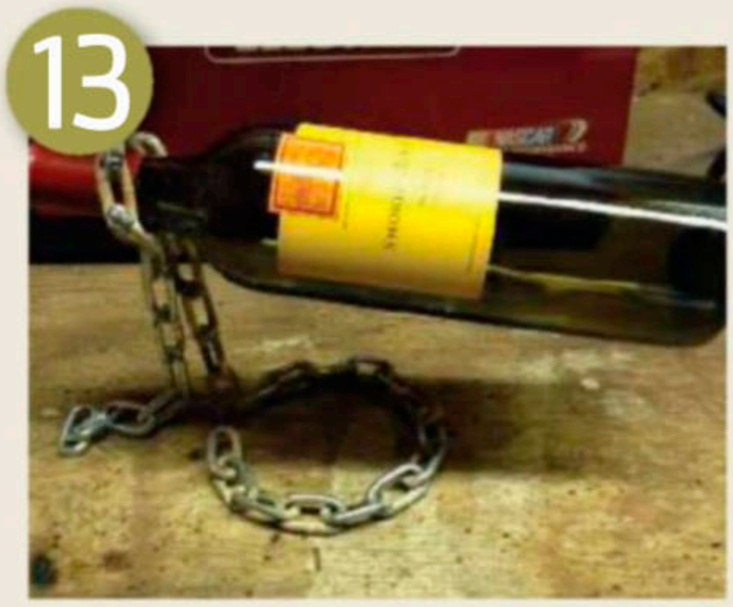
Arrange the chain into a circle

12



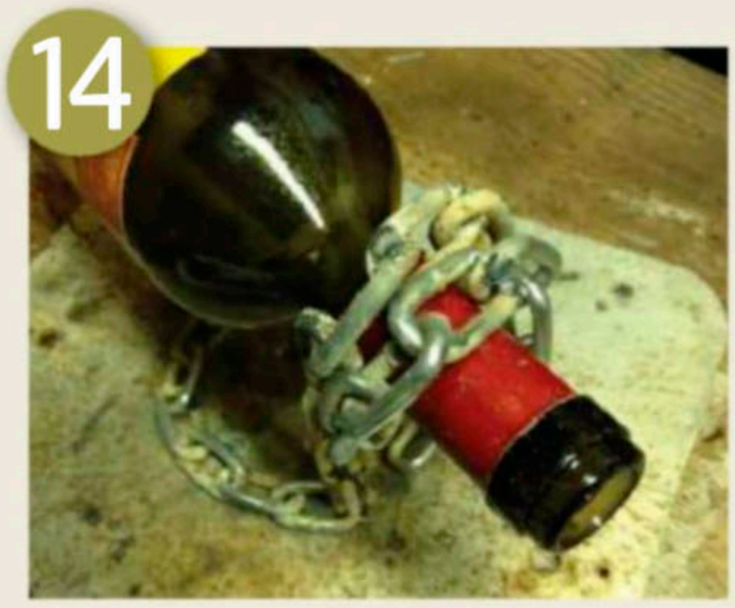
Weld the circle

13



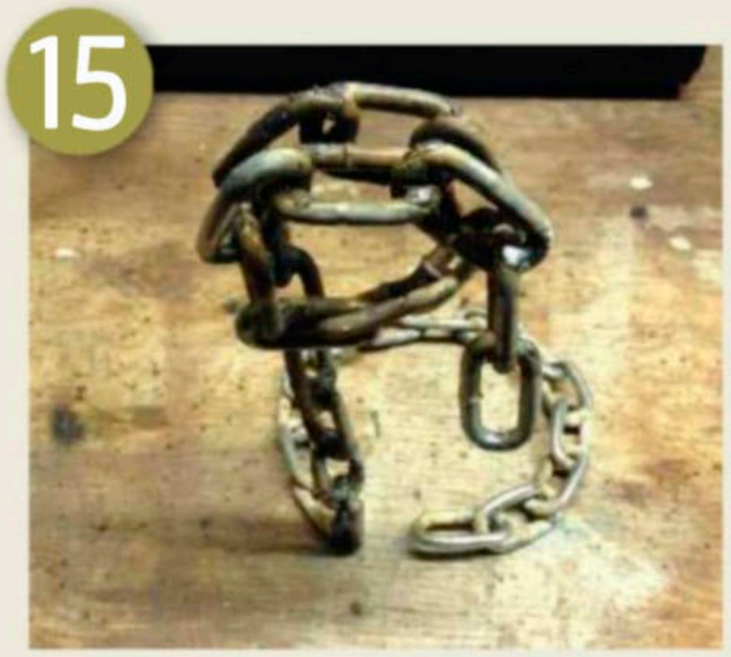
Check to see if the bottle holder works with an empty wine bottle

14



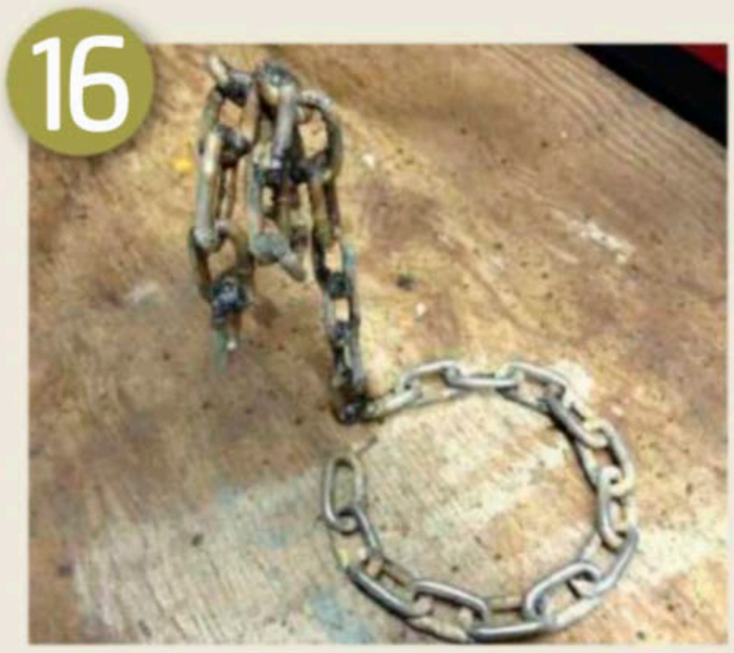
Wrap the remaining chain around the neck of the wine bottle and weld

15



How it should look now

16

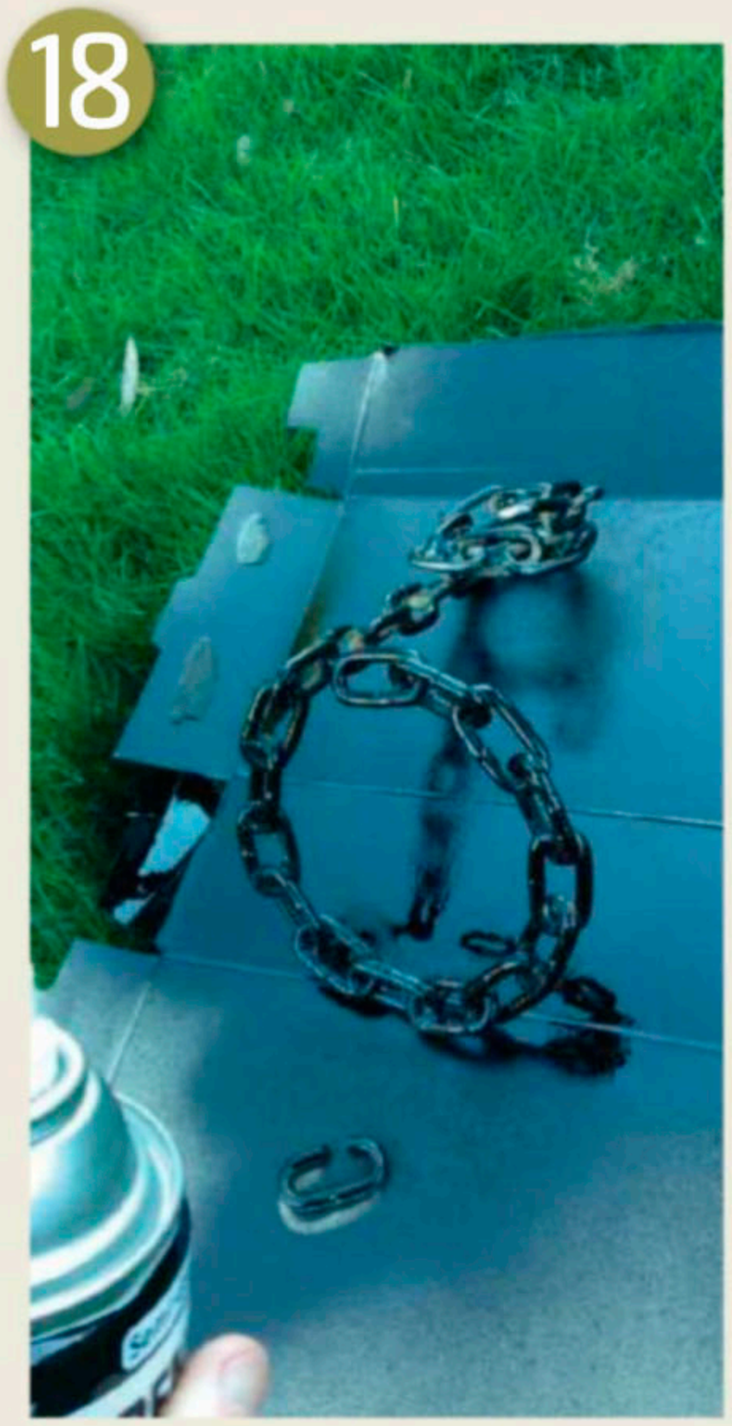


Clean up the metal

17

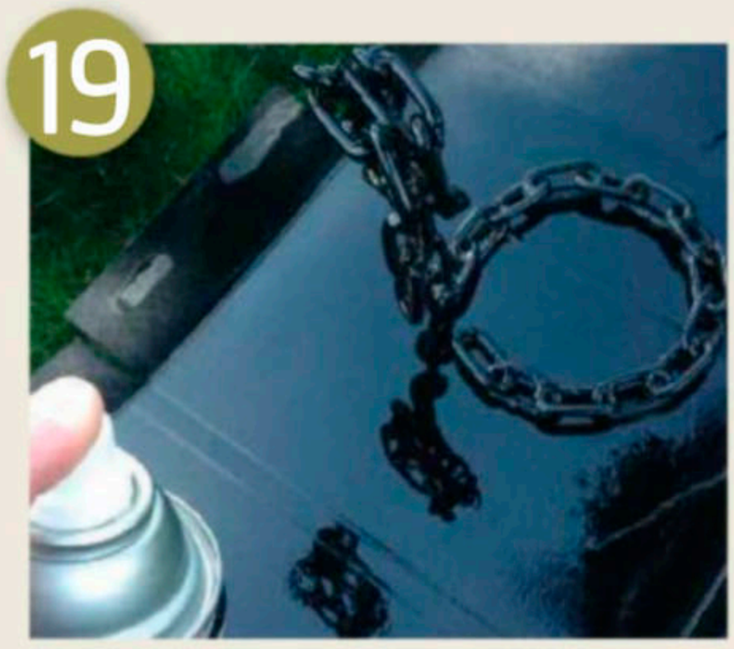
It's now time to spray paint

18



Apply two coats of spray paint

19



Let dry and then apply two coats of clear coat

20

The completed project

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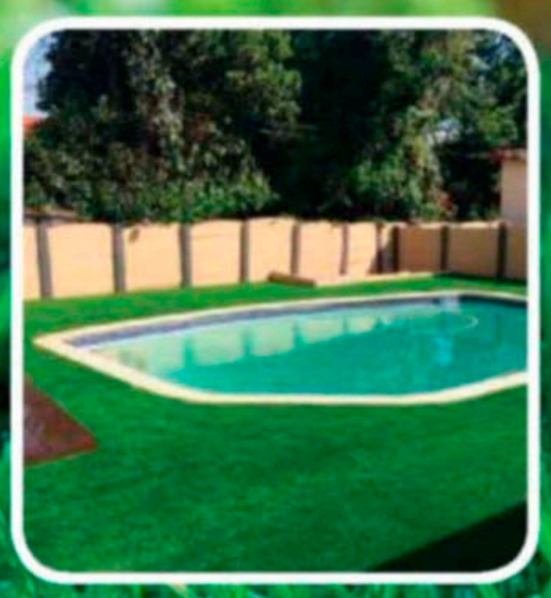
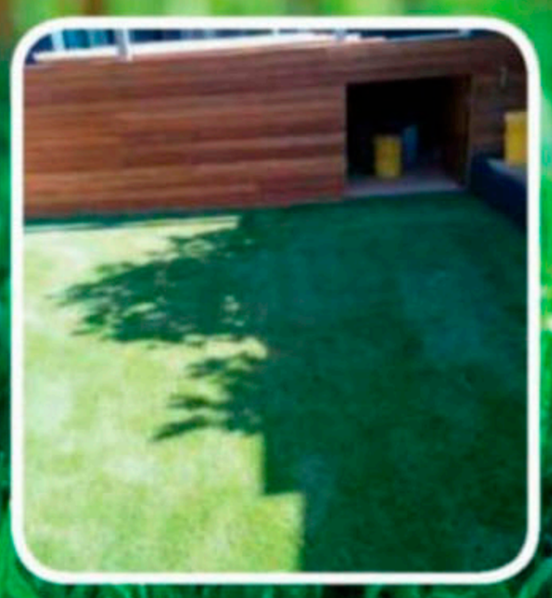
WH T ARE THE ENEFITS OF ARTIFICIAL GRASS

- It saves water
- It's easy to maintain
- Artificial grass can be environmentally friendly
- Durable – lasts up to 20 years
- Long term investment

25mm Augusta



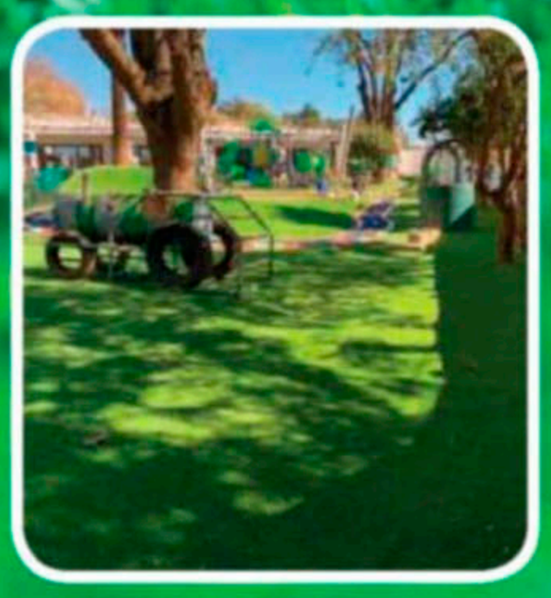
25mm Cruz



30mm Pet Grass

40mm Soccer Duo Rye

13mm Multisport



30mm Autumn

30mm Spring

35mm Supreme

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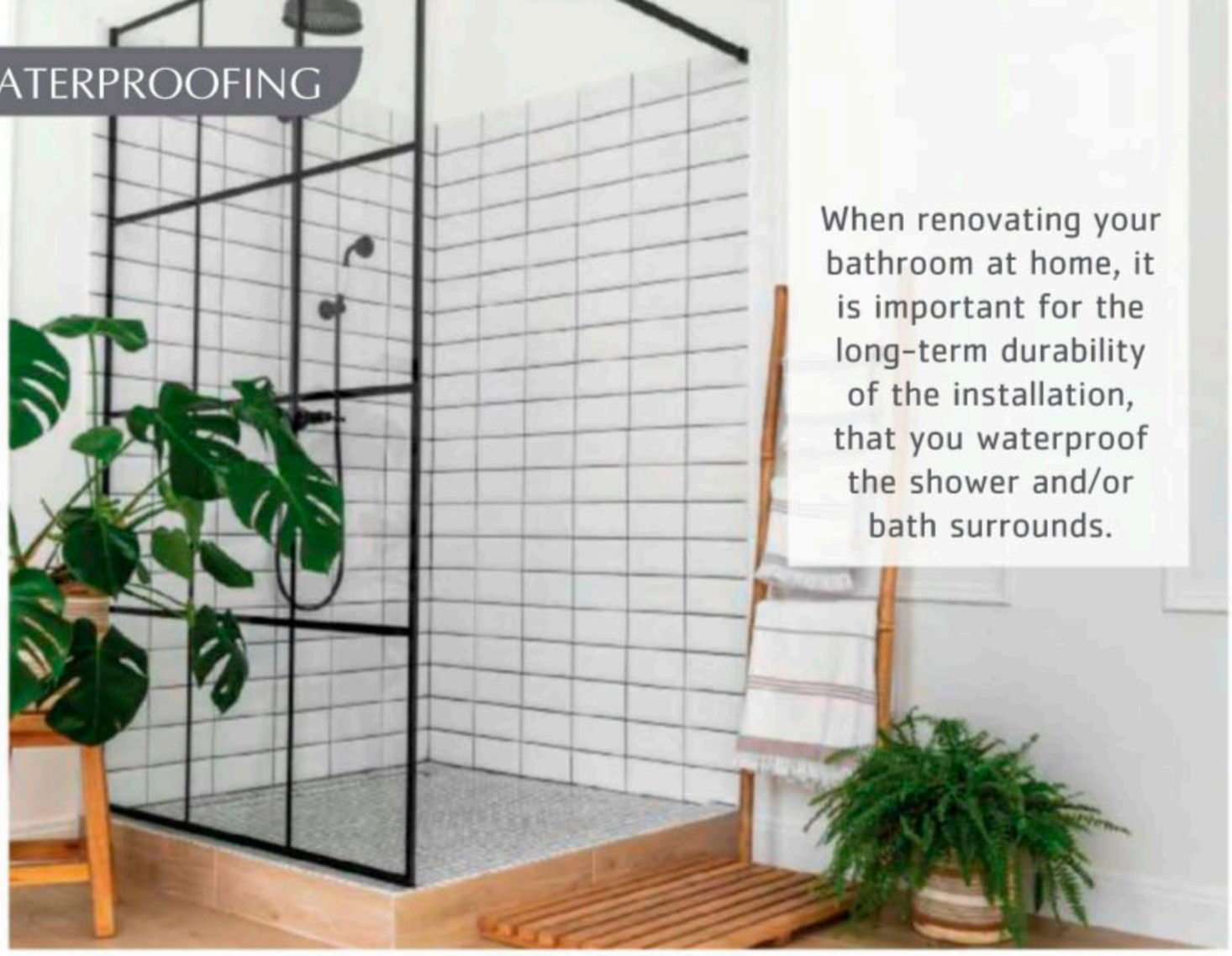


When renovating your bathroom at home, it is important for the long-term durability of the installation, that you waterproof the shower and/or bath surrounds.

5 STEPS FOR RENOVATING A SHOWER OR BATH SURROUNDS

The cost and aggravation of repairs once water has seeped from the wet areas in the bathroom, through the wall into the room next door, can be significant. It is therefore best to spend the time and effort doing the job properly, the first time. Follow these 5 steps for renovating a shower or bath surrounds in your home, from preparation through to grout, for long-lasting success.

We recommend TAL Sureproof Shower to waterproof the space, as this product is designed for use in ground floor residential applications. It's very easy to use, simply mix in the bucket and paint on the surface and tile over once it has cured. There's no need to prime the surface beforehand. The product is also very quick drying with 1-2 hours between coats, and only a 24 hour wait before tiling, versus other waterproofing compounds which require between 48 to 72 hours to cure.

Step-by-step guide

Step 1: Preparation

Start by filling any holes or surface defects with a suitable quick-setting repair compound. Once this has cured, ensure that the surface is clean and free from dust, dirt, waxes or other contamination as this can interfere with the adhesive bond of the waterproofing onto the wall.

Step 2: Priming (if not a rendered surface)

If your shower wall and floor is a clean rendered surface with no contaminants, there is no need to prime before applying TAL Sureproof Shower.

However, if you are waterproofing a dry wall and floor or highly porous surface, you'll need to prime with a coat of neat TAL Floor Primer, this is so that the waterproofing doesn't soak into the surface and use more product than necessary. Wooden and metal surfaces should be primed with a TAL Keycoat and TAL Keymix slurry coat to create a key for the waterproofing compound to stick to.

Step 3: Mixing

Always follow the manufacturer's instruction when mixing a waterproofing compound. For TAL Sureproof Shower, pour approximately 2 litres of water into the Sureproof Shower bucket, then, using a mechanical mixer, mix while adding the TAL Sureproof Shower powder. Mix for at least five minutes until the liquid has a smooth, lump free, paint-like consistency. Allow the mix to stand for three minutes to allow the product to activate, then mix again.

Step 4:

Waterproofing is applied in two coats to ensure complete coverage. Apply the first coat of TAL Sureproof Shower to the clean dry surface with a block brush in a vertical direction. Once the first coat is touch dry, (1-2 hours), apply the second coat in a horizontal direction to the first coat to ensure complete coverage.

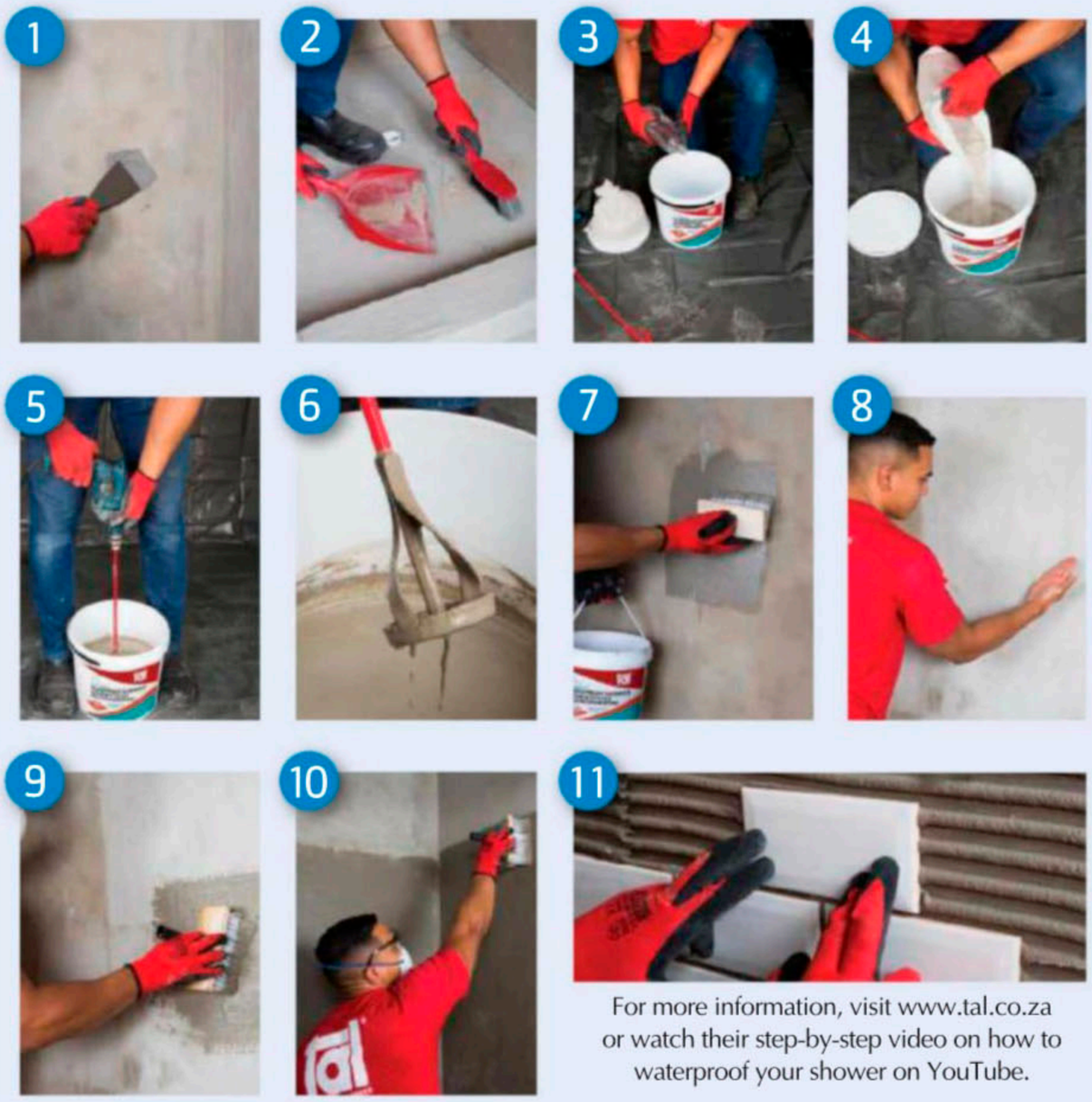
Waterproof to a minimum 100mm above the shower rose. Bathrooms that are upstairs will need a reinforcing membrane (200mm wide) in internal corners of the shower, interfaces, around the tap and rose plumbing fittings as well as the drains.

Step 5: Tiling

Allow TAL Sureproof Shower to dry completely for about 24 hours before tiling. A standard setting adhesive will take too long to cure, so tile the shower with a quick- or rapid-setting adhesive using TAL Bond as a total water replacement in the mix. This gives the installation increased water resistance, flexibility and bond strength. Add TAL Bond to the grout mix to add an extra layer of water resistance and finish the installation off.

Renovating your home is an investment in your property. As tiles are not inherently waterproof, taking the time to waterproofing your shower and/or bathroom surrounds when renovating, ensures the durability and longevity of your bathroom. If you follow these five steps for renovating your bathroom at home, you can expect a water-tight installation for years to come.

1. *Start by filling any holes or surface defects*
2. *Ensure that the surface is clean and free from dust, dirt, waxes or other contamination*
3. *Pour approximately 2l of water into the Sureproof Shower bucket*
4. *Using a mechanical mixer, mix while adding the TAL Sureproof Shower powder*
5. *Mix for at least five minutes*
6. *The liquid should have a smooth, lump free, paint-like consistency*
7. *Apply the first coat vertically to the clean dry surface with a block brush*
8. *Once the first coat is touch dry, apply the second coat in a horizontal direction*
9. *Two coats ensure complete coverage*
10. *Waterproof to a minimum 100mm above the shower rose*
11. *Allow TAL Sureproof Shower to dry completely for about 24 hours before tiling*



For more information, visit www.tal.co.za or watch their step-by-step video on how to waterproof your shower on YouTube.

TAL SUREPROOF SHOWER
CEMENTITIOUS WATERPROOFING

- Fibre enriched, tough and flexible
- Seamless – no reinforcing membrane required*
- Easy to use – mix to a slurry and paint on
- Waterproofs showers and bath surround walls in residential applications

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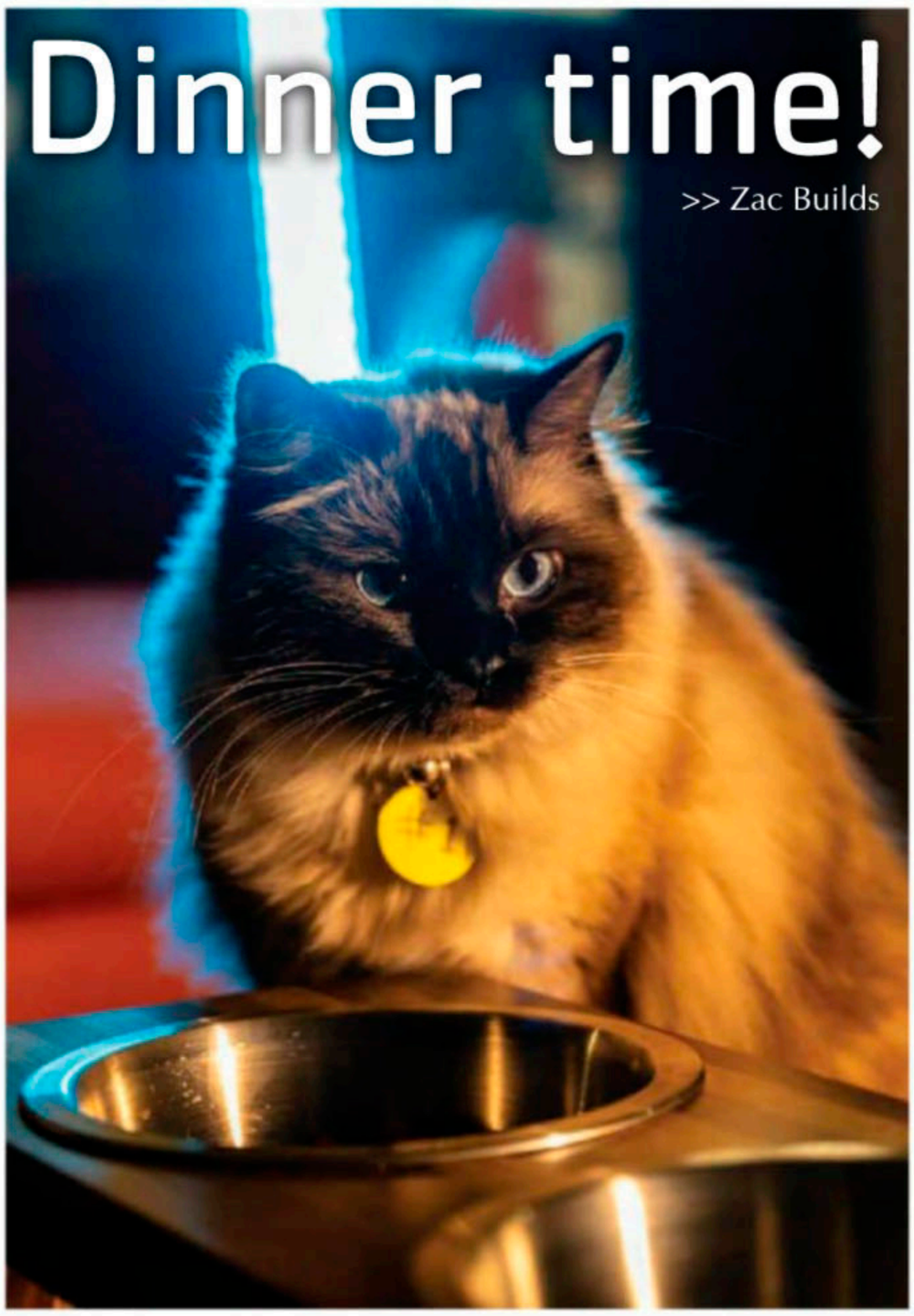
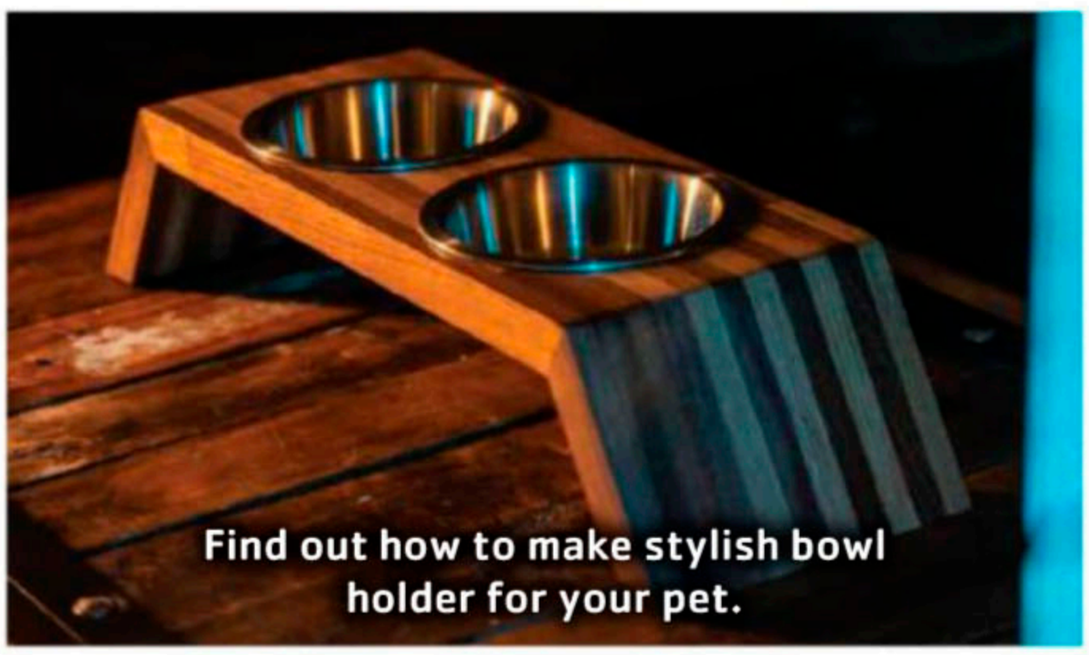




Recently I decided to make my cat a water and food dish holder out of solid walnut and oak. Possibly the most ornate pet bowl holder ever?

It is funny because this was a project I was doing concurrently with a bunch of other larger projects, but I ended up liking it more than the larger projects. It just goes to show that bigger isn't always better. Sometimes when I'm doing bigger projects there's a lot of downtime while I'm waiting for glue or paint to dry, so it's nice to have these smaller projects to keep me occupied. This was a relatively simple build that only took me 4-5 hours of actual working time to finish, though it was spread out over a couple of days, because of the other projects.

A wheelbarrow full of wood scraps is where I started this project. A friend of mine who works for a larger company offered to give me a bunch of walnut and oak offcuts which I happily took.

Outside of that I ordered a few other supplies for this project, including:

- Wood glue
- 2 stainless steel pet bowls
- Kreg Jig R3
- 6-inch Hole Saw
- Satin Floor Varnish

The first step was to cut all of the wood down to a uniform size and cut off any defective bits (like knots and cracks). This was all scrap wood, so it wasn't in the best of shape. With most pieces, I had to cut two sides of the wood before I was left with anything useable.

I cut most everything to 3 x 3cm, but there were some pieces that were too small for that dimension. This was actually a fun exercise in optimisation, I had to figure out what was the optimal way to cut each piece to yield the most usable wood.

Most of the pieces of wood were approximately 450mm long. To achieve the mosaic look I was going for I wanted some of the pieces to be longer and shorter than others. So I grabbed half of the pieces I had just cut on the table saw and cut them in half using the mitre saw.

I think having the pieces at random lengths helps the overall project look a little less boring. If each piece was the same length I'd have less of a mosaic piece and more of a striped piece.

Prior to uncorking the glue bottle, I took a few minutes to arrange my wood pieces in the pattern I wanted to glue them in. This helps save time and make everything go so much smoother once the glue starts flowing. There's nothing worse than getting halfway through applying your glue and realising that you need to re-cut a piece or shuffle around your whole layout.

I laid all of my pieces of wood on the table and rolled them onto their sides. I applied a generous bead of wood/carpenters glue onto each piece. A good practice here is it spread the glue around with a brush (or even just your finger) to make sure you get good even glue distribution. Once the glue was applied I rolled them back up and clamped them together using six F-clamps

Twelve hours or so hours later and I was back to work. After removing the clamps I ran my glued-up board through the

planer to remove any variations in height between the pieces I glued together. I love this part of the process. The wood goes in all uneven and bumpy and comes out perfectly smooth.

To me, this represents the end of the first stage of the project. I've essentially created the material I need to do this project. If you wanted to simplify this project to make it a bit faster and easier for yourself you could just skip everything up until this point and make it out of a single piece of wood.

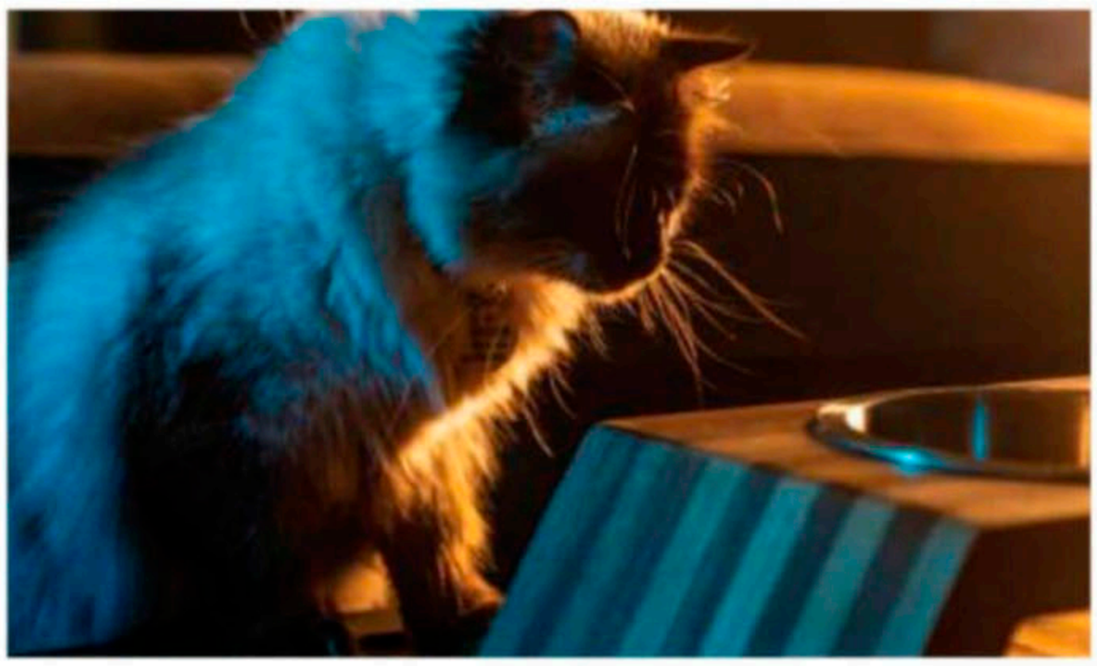
Next it was time to cut up my freshly glued together wood. Using a table saw mitre gauge (set to 0°), I cut the uneven ends off of the board. With the ends cut clean, I was able to easily use a big square to measure and mark the location of my cuts. From this single piece of wood, I need to cut a midsection (that will hold the bowls) and two legs.

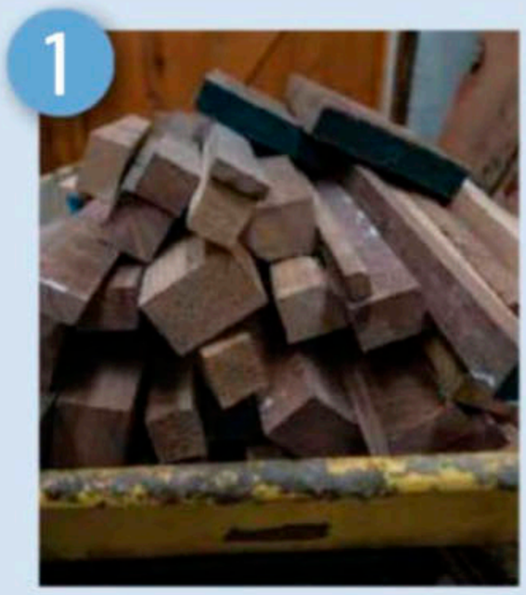
I wanted my legs to sit at a 60° angle, so to make the mitre cuts necessary I set my table saw to 30°. For a mitre joint, you cut both sides of the wood at half of the total angle. So 60°, divided by two cuts, equals two 30° cuts.

Cutting along the lines I had just made I made a total of six cuts. In order to get my angles right I had to cut along the same line twice in some cases, flipping my piece of wood over to invert the angle of the cut.

It's been a long time since I've had a need to use a drill press in one of my builds. I cut two large 150mm diameter holes in the centre of the midsection using a huge hole saw. The dishes I bought for this project have a diameter that is slightly less than 150mm so they'll slot right into these holes (the lips of the bowls are greater than 150mm though, don't worry they won't fall right through). I clamped my mosaic piece to the platform of the drill press and, slightly nervously, flicked the on-switch. I wasn't sure if this giant hole saw would be too much for my trusty old drill press, but luckily it held up just fine.

One big question I had going into this project was how I was going to connect my mitre joints. Previously I've used biscuits (wooden wafers cut into channels in the wood) and a lot of glue to connect mitres. To be fair to that method, it has always worked well for me. Nevertheless I still had the urge to try out a new technique.

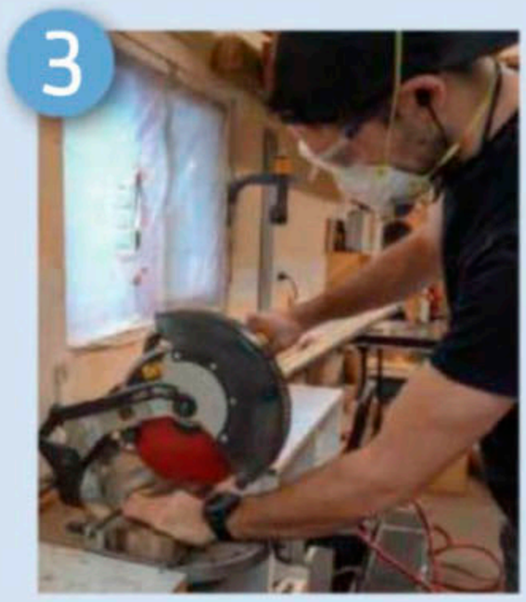




A wheelbarrow full of wood scraps is how this project started

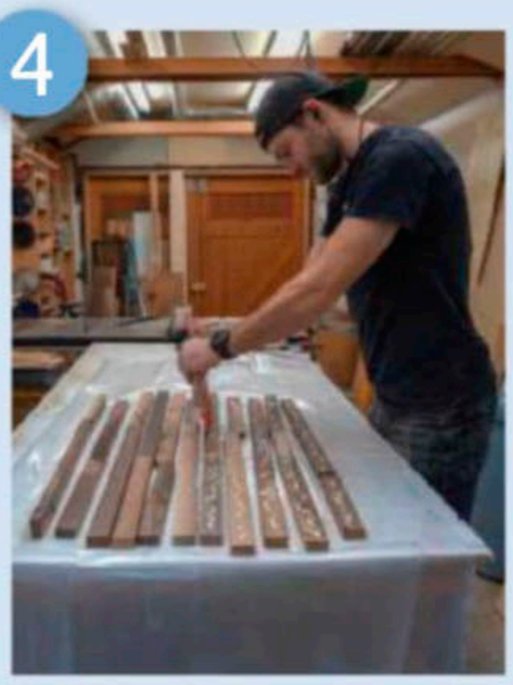
The first step was to cut all of the wood down to a uniform

(Blade guard removed for photos)

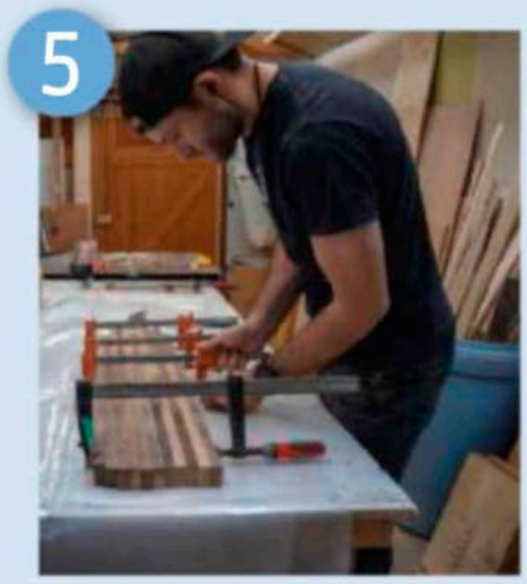


Cut off any defective bits (like knots and cracks)

(Note: We would suggest removing your watch in the workshop)

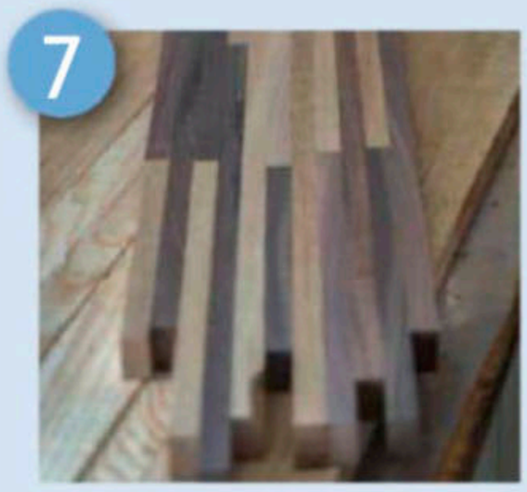


Apply a generous bead of wood glue onto each piece



Once the glue is applied, clamp them together

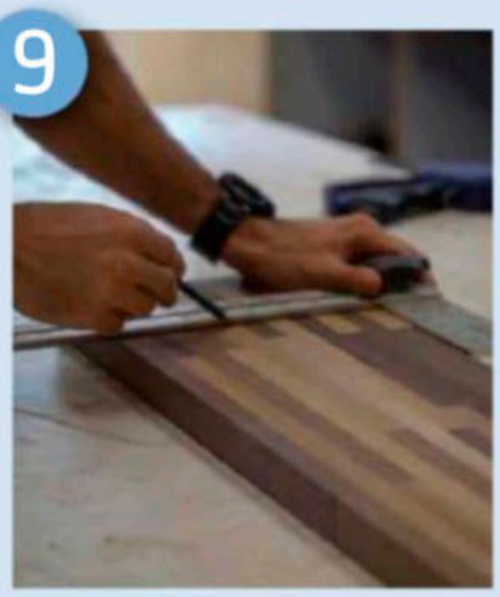
After a few passes with the



This is what came out the other side. Perfectly smooth

Time to cut up the freshly glued together wood

(Blade guard removed for photos)



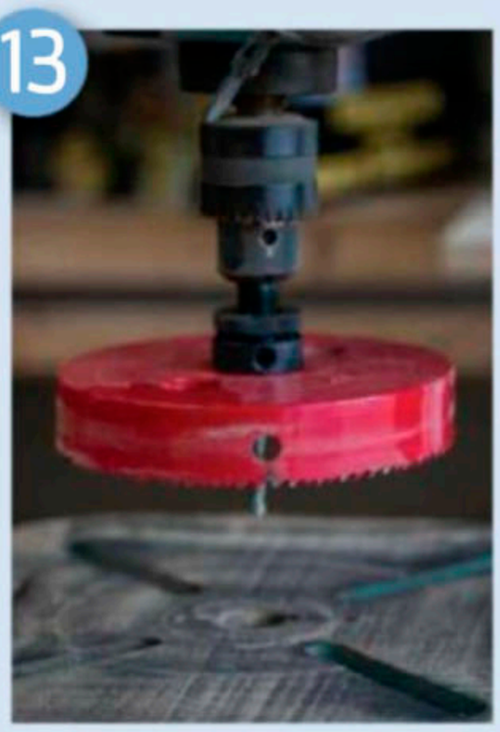
Use a square to measure and mark the location of the cuts

Cutting the wood at 30°

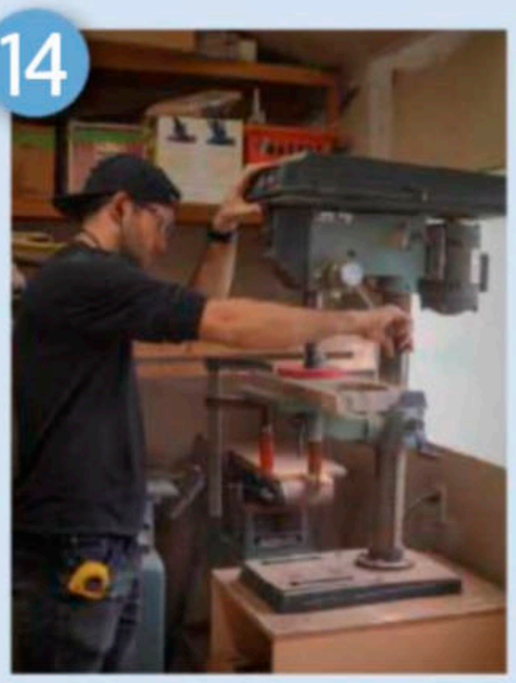
(Blade guard removed for photos)

How the cuts came out

Next get your drill press ready

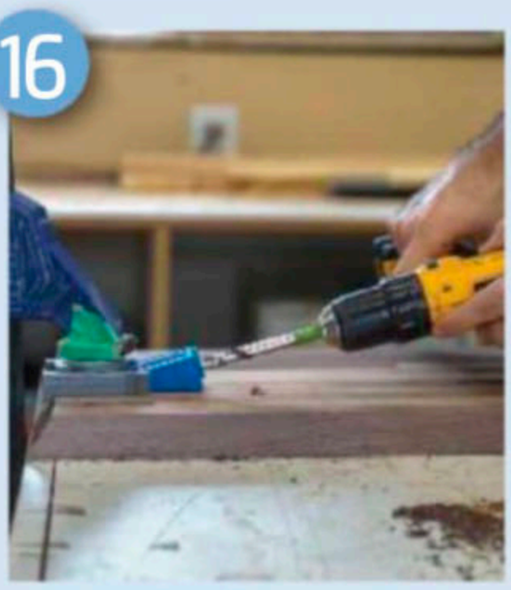


A large hole saw is required



Cutting the two holes for the bowls to sit in

Pocket screws were used to secure this project



A Kreg R3 jig was used for this project

Recently I saw a video of someone using pocket screws to connect a mitre and thought "oh that looks cool, I'm going to try and do that". It is not really how pocket screws are meant to be used, but it looked like it would be quite strong if done right. Normally pocket screws are meant to hold joints that are butted together flat. Because I was going to be using them on a mitred corner I had to be very careful about the location of the holes and the length of my screws. A poorly positioned pocket screw hole or a screw that was too long would mean the screw would poke out the other side of the wood. I experimented on a bunch of scrap pieces until I perfected my technique. I don't think this technique would work on a 90 mitre corner unless the material is quite thick, but because my corner was only 60 there was enough 'meat' to catch the screws on the other side.

Continuing my theme of trying out new techniques, I bought a Kreg R3 jig for this project. This is my first time using a Kreg jig, or any store-bought jig for that matter. Normally I like to make my own jigs, or if I'm really looking to mess things up, I'll try and do it freehand. There's something to be said for quality jigs. They can help you work more efficiently and reduce the chance of you making an error.

First I applied a generous bead of glue on both sides of the mitre. Maybe the screws would've been enough to hold everything on their own, but I feel better knowing that there's some glue in the joint too. I used regular old wood glue, the same glue I used to do the glue-up in the first place.

Using my right hand I applied downward pressure on the leg, keeping it locked in position, and sank the pocket screws with my left.

With everything all screwed and glued, all I had left to do was some quick finishing. Any small gaps and imperfections got filled with walnut coloured wood filler. Believe it or not, not all of my joints are 100% perfect, but no one besides you and I need to know that.

Once the wood filler dried it was time to give the whole thing a quick sand. I started out with 80 grit sandpaper to remove the wood filler, round the corners and knock off any loose splinters. Then 120 grit and finally I ended on 220 grit. A good sanding at 220 grit gives the wood a silky smooth feel to the hand but still leaves enough surface variation for good adhesion of the clear coat.

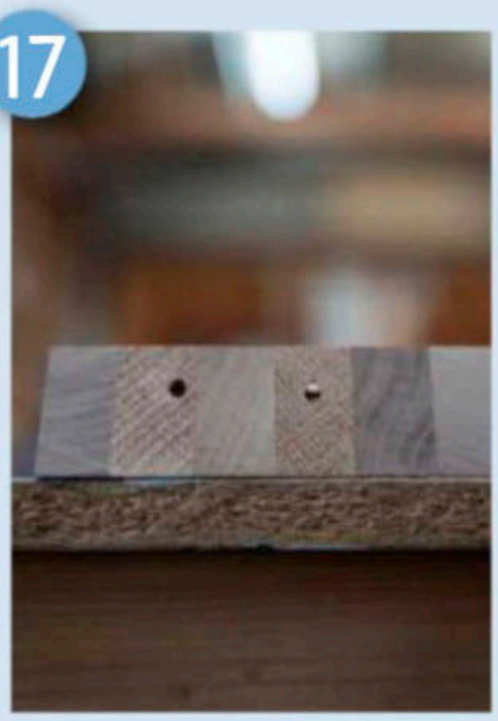
After sanding, and before applying the finish, I always like to give whatever I'm working on a good wipe down. It helps to remove dust and any other contaminants that you wouldn't want to be trapped underneath you finish layer.

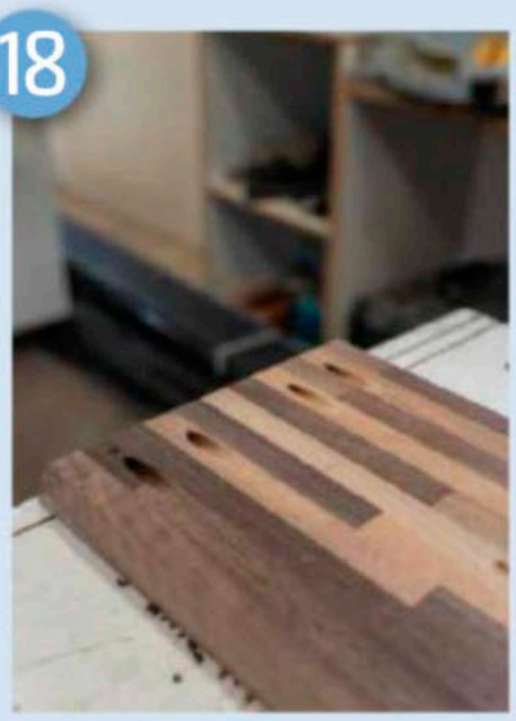
I decided to use a satin floor varnish as my finish. I picked this finish for a few reasons. For one it's really strong and resistant to scratches, probably owing to it being a floor varnish. Two, it's a hybrid oil and water product that dries really fast, which means that putting on multiple coats is a much easier affair. Third, and

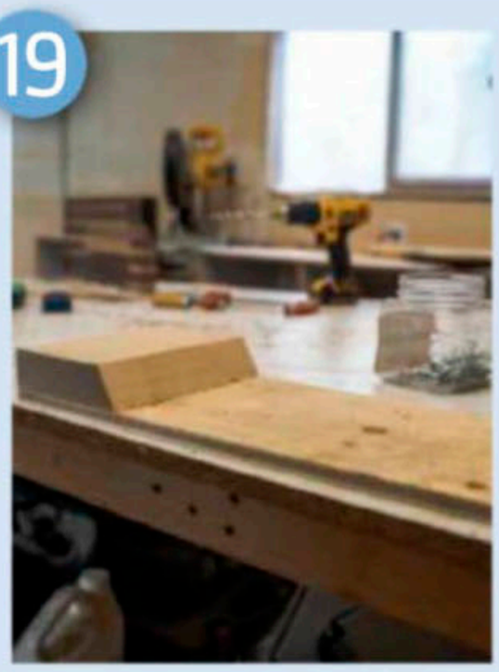
probably most importantly, I already had a can of it on hand from another project!

The application was dead simple. I used a mini roller and tried to roll on very thin coats as quickly as I could. I find that many thin coats are the best way to apply any clear coat. Don't worry about getting it perfect on the first try. Just roll it on thin, sand lightly with more 220 grit sandpaper between coats and layer up the coats until you have a nice finish.

After that, all I had to do was let the clear coat dry and drop the bowls in place. After the finish dried there wasn't anything left to do except take it home and load up the bowls with some food and water for my cat!

17

A few holes done

18

The end result

19

A homemade jig used on this project to aid in assembly

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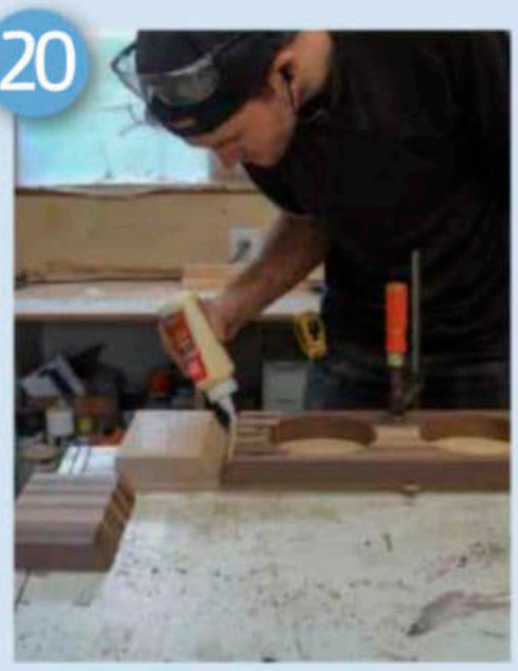
First apply a generous amount of glue

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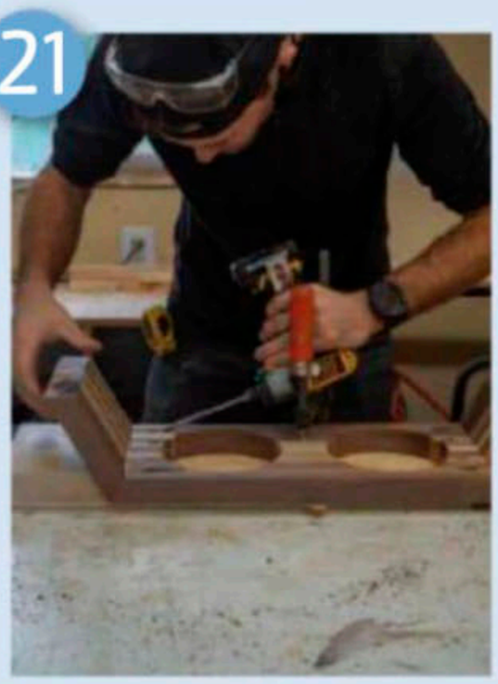
Use your right hand to apply downward pressure on the leg, keeping it locked in position…

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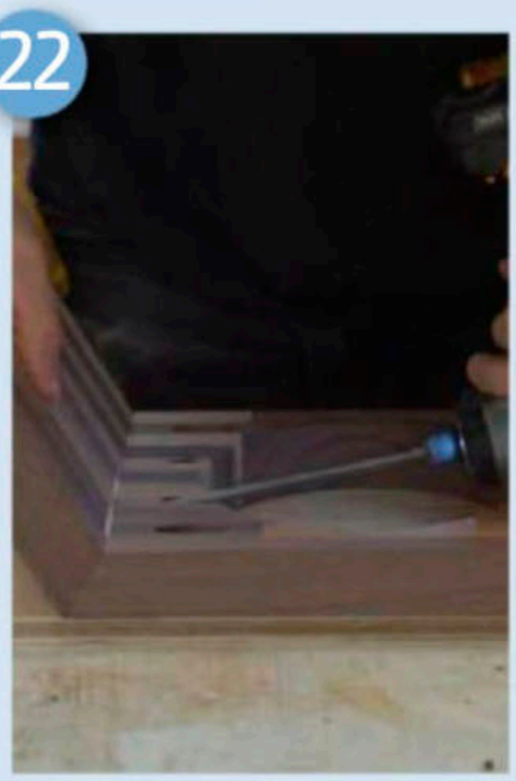
And sink the pocket screws with your left hand

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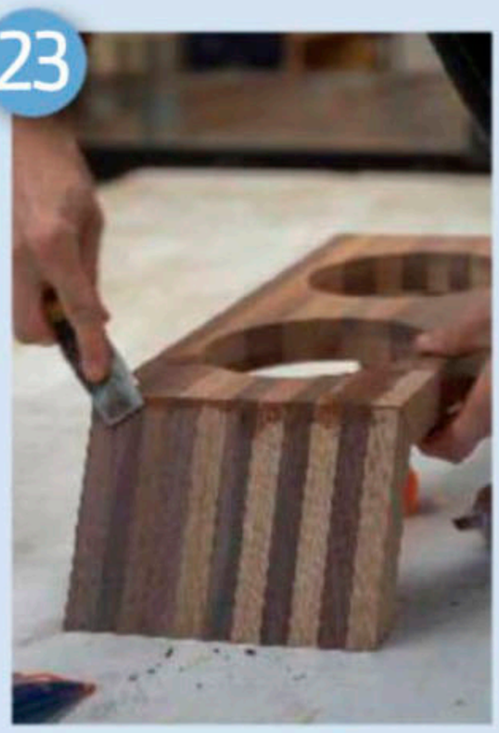
Any small gaps and imperfections were filled with wood filler

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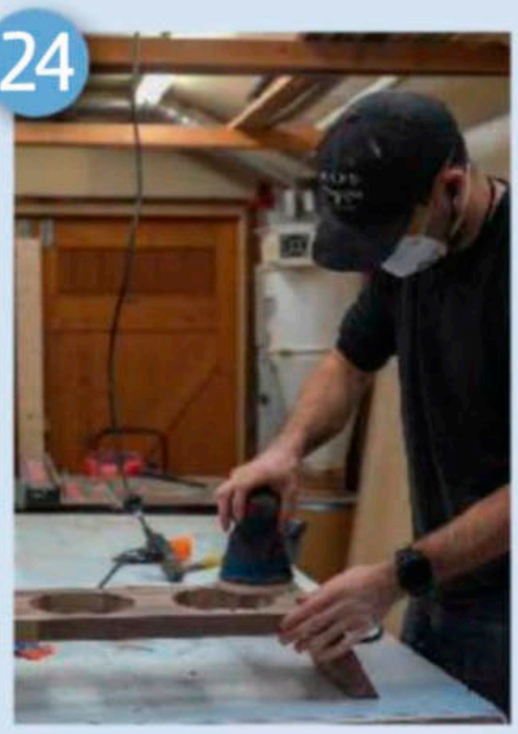
Once the wood filler dried it was time to give the whole thing a quick sand

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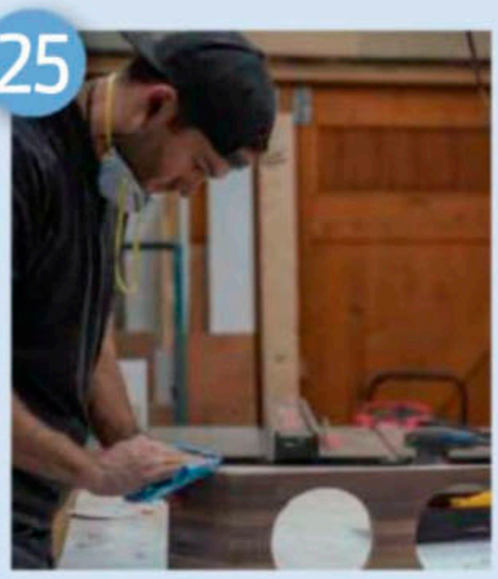
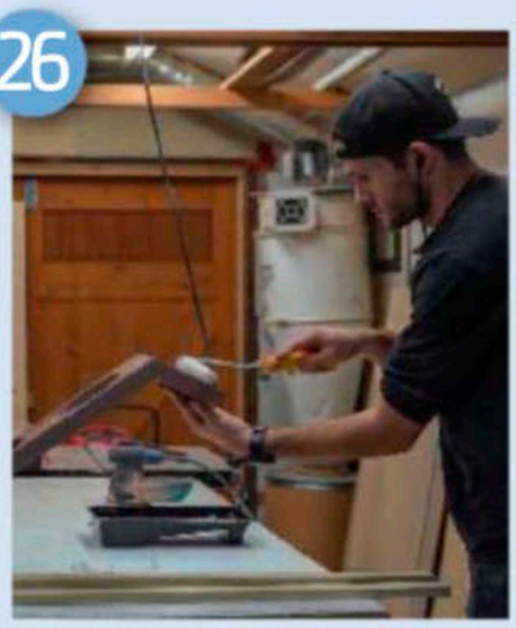

After sanding, and before applying the finish, give it a good wipe down

26

I decided to use a satin floor varnish as my finish

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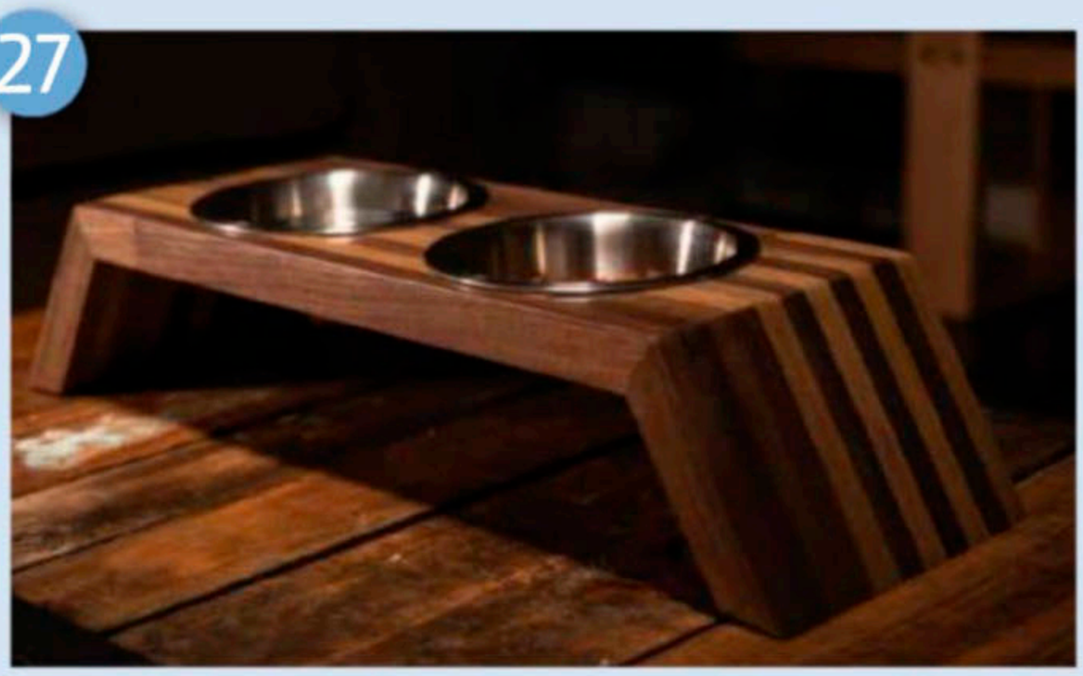
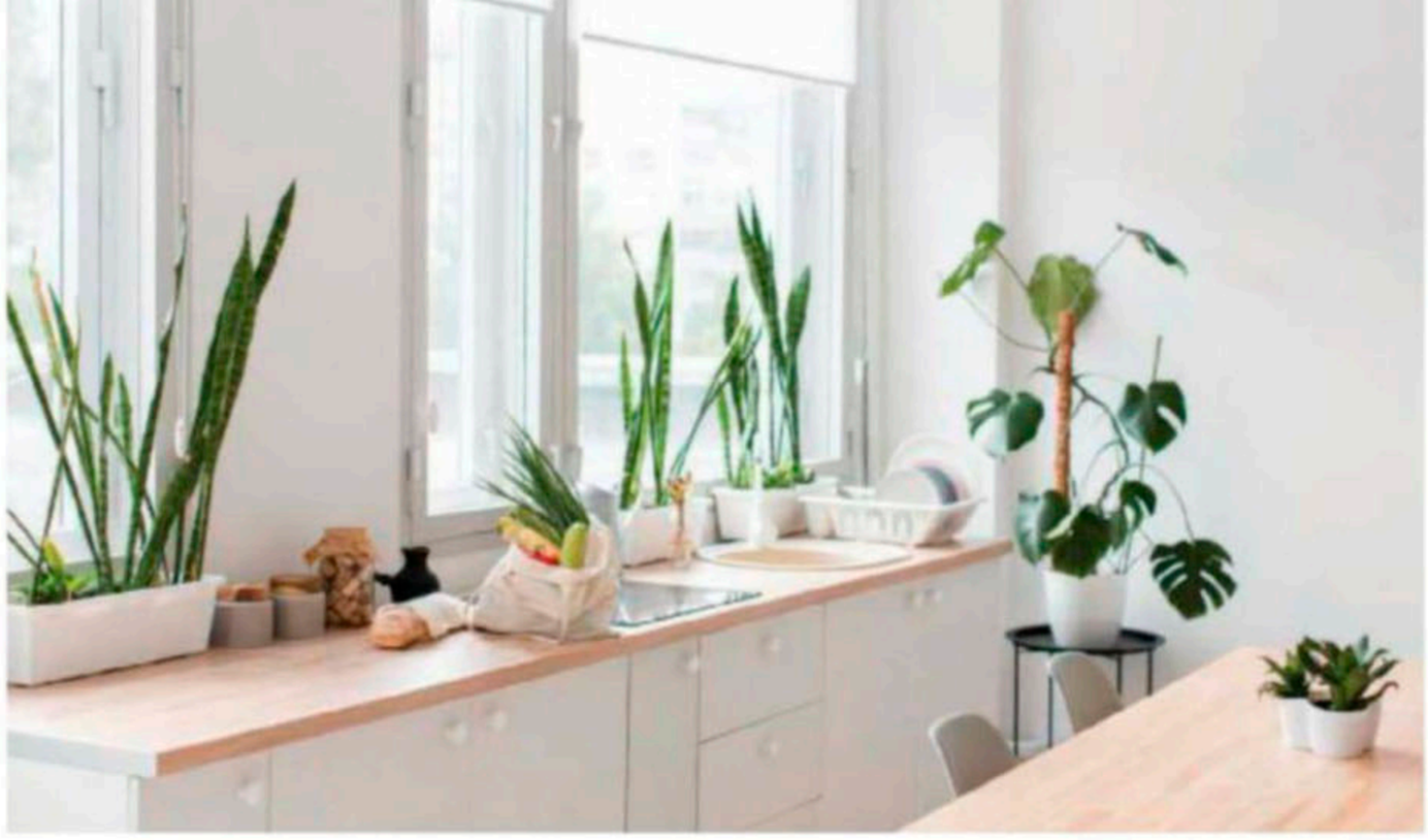

All done!



Hanging plants, vertical gardens, and windowsill herb gardens are a great way to breathe actual life into your kitchen

excuse to have fresh plants available to add to your cooking. Always burning yourself? Why not add a beautiful aloe to your kitchen that can double as a burn dressing? Choose plants that are practical or ones that are simply pretty to look at. Either way, your kitchen will thank you.

Display it

Display-style cabinets are a great option for people with impressive cutlery and crockery collections. Replacing cabinet doors with glass can add character to your kitchen without creating clutter, and they help the room look more open. They also make it easier to find things when you're in a hurry, and allow house guests to look after themselves without rummaging through your stuff.

When it comes to home improvements, the sky is the limit – depending on what you're looking to do and willing to spend, of course. To stay up to date with the latest trends, try keep structures like walls and fixtures as simple as possible so you can upgrade fittings and accessories to reflect this season's styles.

Expert DIY advice on how to paint tiles easily

Painting tiles: everything you need

- Sugar soap or a similar detergent
- Scourer
- Fungicidal spray
- Filler
- Fine-grade sandpaper
- Gloves
- Small paint brush
- Primer
- Tile paint (or a high-gloss solvent based paint)

Painting tiles can dramatically cut the cost of renovating a tired looking bathroom or kitchen, and with our handy step-by-step guide to painting tiles, you can put this quick and cost-effective solution to the test in your own home. Whether you've inherited a dated scheme or are in search of a weekend project that will transform a space, painting over tiles could be your solution.

How do you paint over tiles?

You can paint over tiles yourself, whether they are porcelain, ceramic or glass. You just need to equip yourself with the right tile paint, tools and equipment which we have listed in our 'Painting tiles: everything you need' section.

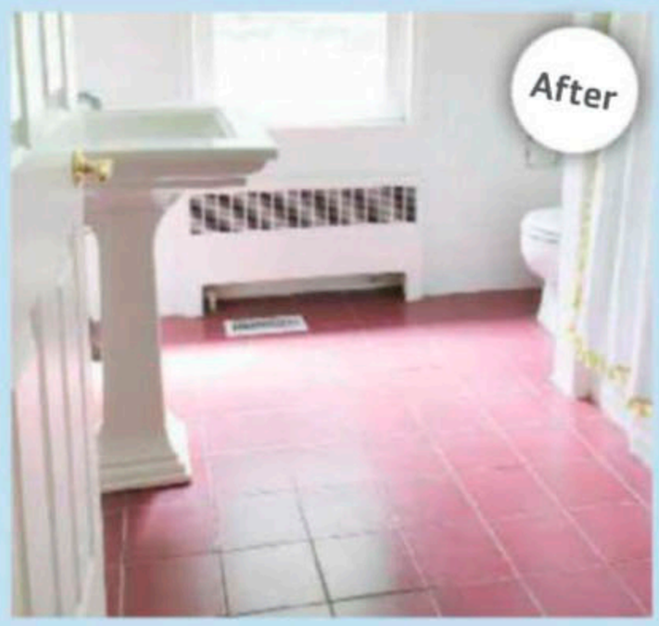
Then, follow the sections from our suggested method that follows, choosing the steps that most apply to your existing tiles, their current condition, and of course, consider the type of painted tile effect you are trying to achieve in your kitchen, bathroom or other area of your home.

Tips for how to paint bathroom tiles

- Try to remove any silicone sealant from around showers, baths and sinks before painting and re-seal when the painting is complete. If you can't remove the sealant, make sure it is properly masked off as paint will never properly adhere to it.
- Once you have painted your tiles do not attempt to re-grout, do this step before, as anything abrasive will remove the paint.
- Avoid abrasive cleaning products after painting your tiles as it will remove the paint.

Tips on how to paint kitchen tiles

- Clean them thoroughly, making sure any grease or food stains are completely removed.
- Use grout cleaner and a microfibre cloth to get rid of any food or grease that has got in between the tiles.
- Before you start painting kitchen tiles, protect any worktops with dust sheets and masking tape.



Step-by-step guide

Step 1:

Painting over tiles may be a quick, affordable way to update a room, but it is not the most durable solution; if anything, it's more of a stop-gap.

To avoid the paint peeling quickly, opt for areas that aren't subject to much drenching - avoid showers or areas directly behind the sink, for example.

Step 2:

Making sure the tiles are clean before you even pick up a brush is key. Dirt, dust and grease can stop the paint adhering properly, so spend some time cleaning the tiles with sugar soap or a detergent solution and a scourer. If you are painting kitchen tiles be very thorough with this step because they are likely to be greasy or have food residue on them that you will see through the paint.

If there are any mould stains on the grouting or sealant, use a fungicidal spray to kill it off before applying any paint. A steam cleaner is also very effective for cleaning grout and tiles. Ensure the tiles are completely dry before starting to paint (we recommend waiting 24 hours).

If the grout is in poor condition, scrape it out and re-grout before painting. Same goes for any hairline cracks. Use an epoxy glue on smaller cracks to create an even surface. Taking the time to do this will give the best finish.

Step 3: Sand the tiles

When painting a high-gloss tile, lightly sand the area to give the paint something to adhere to, just be sure to clean off any dust before you start tile painting.

Step 4: Shop for the right paint

Successful results rely on choosing the right, high-quality, paint, with specific tile paints making the best choice. The majority of specialist paints won't need a primer but always follow the manufacturer's instructions.

Tile paint colour options can be limited, so if you are want a particular shade, prime tiles with a high-quality, solvent-based primer and use a high-gloss or semi-gloss paint for your top coats.

Step 5: Prime your tiles (if necessary)

For all tile painting jobs you should check if this is a necessary step to ensure the longevity of your tiles' look. If you are using a primer, a small brush is the best choice for the job as it's hard to get into the grouting with a roller. Be aware that painting tiles is unforgiving and brush strokes will show easily so keep your coats thin. Let the primer dry completely and then lightly sand to ensure the paint adheres to the surface. Remove any dust before starting on your topcoat.

Step 6:

Once the primer is completely dry, use a similar sized brush to start painting on your colour. If you're using a stencil this is the time to position it on your first tile – take your time to ensure it's in the right position.

Apply several thin coats to avoid heavy brush marks showing through and to ensure the paint doesn't peel after just a few weeks.

Two coats will usually be required, but if you are painting over a dark coloured or patterned tile you may require more. Be aware that if you are painting tiles with a raised pattern this will still show. Allow the paint to dry thoroughly between each layer.

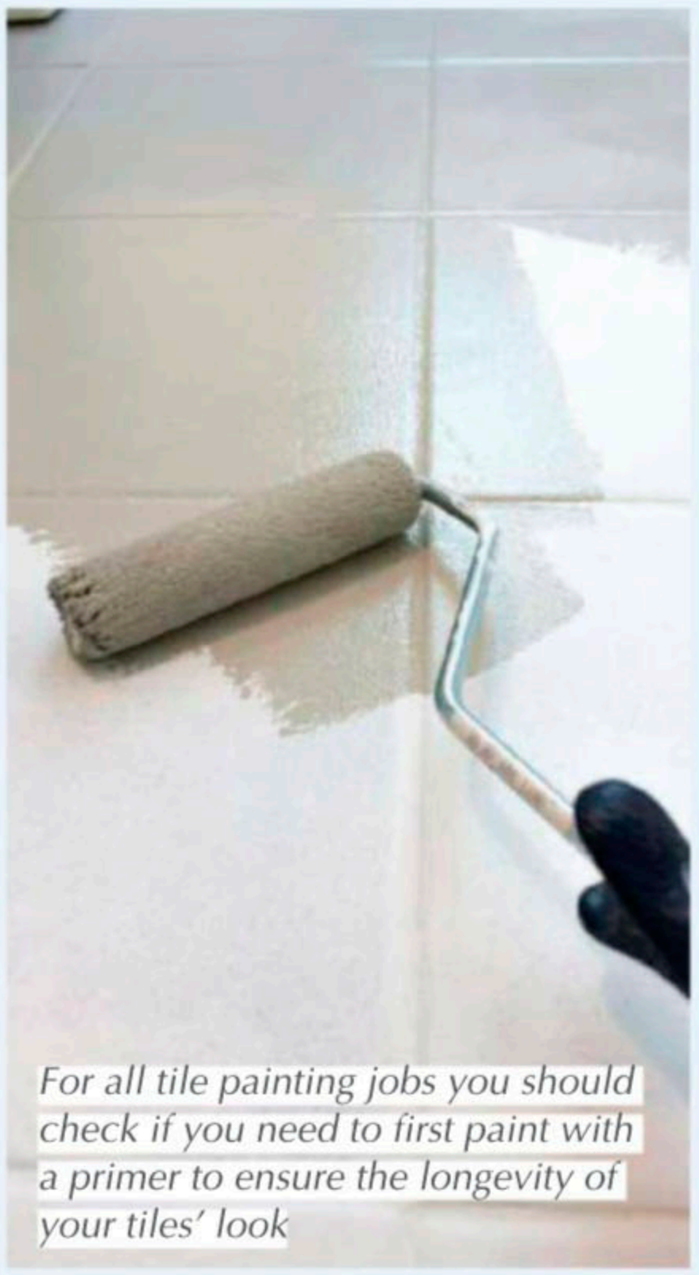
Step 7: Expert advice for an on-trend, patterned finish to your tiles

Use your stencil to tackle one tile at a time, ensuring precision and making sure that everything is aligned as it should be. Our pro tips will help you achieve the desired finish:

- Less is more when it comes to tile painting. Ensure you're only dipping the very end of your paintbrush in the paint to prevent overloading and wipe away any excess. If your stencil is bleeding, this is a sign that there's too much paint.
- You might also consider using a sponge, rather than a brush. This generally prevents you from using too much paint and makes it easier to cover a large area in a short amount of time.
- Practice using your stencil on a spare tile or paper plate. It can take a few attempts to master the technique, so make sure you know what you're doing before tackling your tiles.
- Start with a less visible tile and only tackle those in the middle when you're confident you know what you're doing.

Step 8: Tile painting requires patience – let the paint dry

Allow the paint to dry for at least 24 hours – or for the time stated by your chosen paint's manufacturer.



For all tile painting jobs you should check if you need to first paint with a primer to ensure the longevity of your tiles' look

BRIGHT IDEAS

Readers share their time-saving, space-saving or innovative ideas

Solving two DIY problems

Doing some wardrobe shelving recently, I didn't want to accidentally drill through the thin walls for the 5mm pegs. A piece of dowel cut to the right length and slid on the drill bit solved the problem. The other problem I faced on the weekend was trying to start a ½" pipe thread on some thick-walled water pipe. Even though I chamfered the pipe, the die would not bite and no one was around to help. I got some threaded bar with washers and nuts slid it through the pipe and die head and tensioned it onto the pipe. By turning the threader and keeping pressure on with a 17mm spanner it was only half a turn and the dies started the thread.

Bob Gillies, by email

Avoiding tearout when cutting veneered sheets

When cutting veneered or melamine coated plywood or particle board on the table saw, there is always the problem of tearout at the bottom. Tearout can be reduced by cutting more slowly, setting the blade relatively low, and by the use of a zero clearance insert. But even with these measures, some amount of tearout still happens. Some people avoid tearout by putting tape over the area to be cut, but that is time consuming and messy.

On high end table saws, this problem is solved by the addition of a "scoring blade". The scoring blade turns in the opposite direction to the main blade, so that it cuts with the teeth cutting into, not out of the wood. The scoring blade cuts a shallow cut ahead of the main blade, so that the main blade's teeth, where they exit the wood, end in the cut that was already made, so that they don't pull the fibres out of the surface.

One can always emulate this behaviour by manually making a scoring cut. This can be done by setting the blade so that it cuts only 1mm into the material, and running the stock over the blade backwards.

This should only be done if the stock can be securely held, such as on a crosscut sled. The scoring cut should only be about a millimetre deep, so that there is not enough for the blade to grab hold of, as cutting backwards across a sawblade is generally not the safest thing to do. But I know a scoring blade on a high-end table saw does exactly that, so it can be done safely under the right circumstances.

After making the initial scoring cut, without removing the stock from the sled, the blade is raised to cut through the material, and another pass is made forward.

Terence Wallace, by email

Control those climbers with zip ties

WINNER

Simple items like zip ties can have so many helpful uses, both in the house and outside in the garden. If you have climbing plants or vines that might get a little out of control, simply use the zip ties to keep them in check. The ties are safe to use and can be fastened around pieces of wood or fencing, guiding the growth of your climbers just the way you want, but be sure not to tie too tightly.

Mary Ferris, Newcastle

SHARE YOUR IDEAS

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Win a TorkCraft motion sensor LED ceiling Tri-light

Arrive home to a fully lit garage, parking area and home entrance – the perfect, safety and security for your family. This new motion activated ceiling Tri-light, which is a simple fit as it screws in like a light bulb, is guaranteed for 50 000 hours of light.

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Send your bright ideas to:

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Please include your name, physical address and a contact number (office hours). You may also include a photograph (300kb) of your bright idea (where applicable).

Please note: Winners' prizes may take up to six weeks for delivery and are sent by the prize sponsor. Prizes are not exchangeable.

Congratulations to Mary Ferris who wins a Tork Craft's CH10004 8-piece wood turning set.

FAMILY PROJECT

Beat the winter blues by getting the entire family involved with making modern pendant necklaces using Pratley Putty! Here is an easy step-by-step guide compiled to assist you in unleashing your creative flair!

Make modern pendant necklaces at home

>> Tharina Malan

What you will need

- Pratley Steel Putty
- Kraftex Decoupage Sealant
- Glitter or paint (of your own choice. I use a variant of gold paint and gold glitter, which makes for a pleasant contrast)
- Wax thread or jewellery chains (this can be repurposed items)
- A silicone mould (optional)

Do not worry, as no specific artistic skillset is required – just your enthusiasm! It should only take about 30 minutes to make these pendants, with about five from a single batch. Enjoy this simply stay-at-home project with the entire family!

Step-by-step guide

Step 1: Cut the Pratley Steel Putty into small sections, each one of which will be turned into an individual pendant. Pratley Steel Putty Steel is a hand-mouldable putty that not only sets like steel, but matches its colour as well.

Step 2: Use your hands to mould each separate piece of Pratley Steel Putty into different shapes for the pendants.

Step 3: You should ultimately end up with a shape that is round and fairly sculpted. Be sure that the shape tapers to an end point where it is easy to make a hole through.

Step 4: The photos show some more examples of the shapes and sizes that can be made. Note the holes through which the wax thread or jewellery chain can be threaded easily.

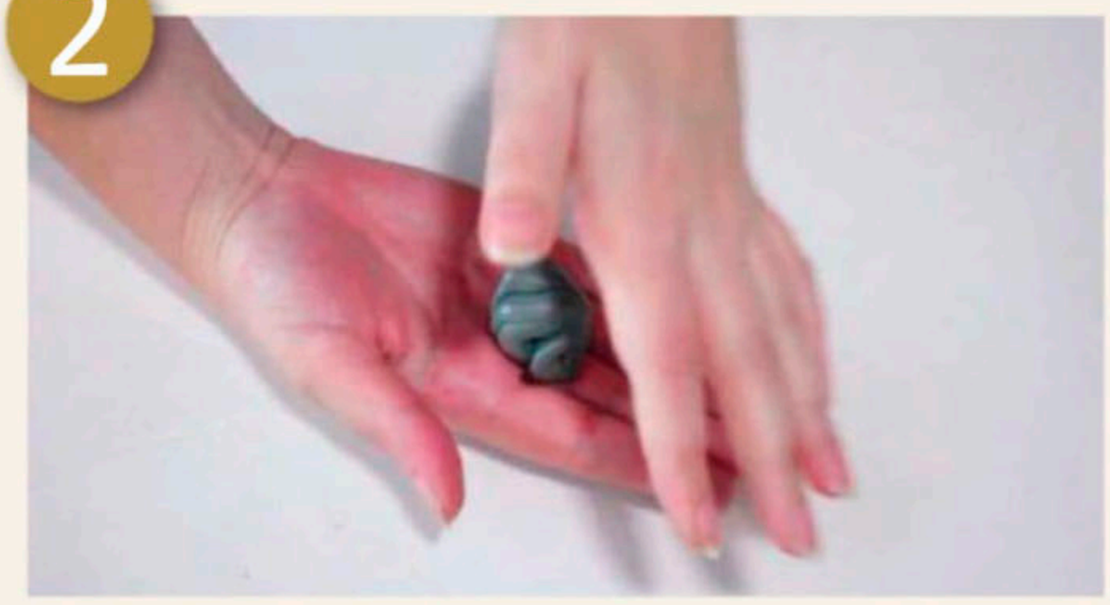
Step 5: Use Kraftex Decoupage Sealant in order to give the pendants a high-gloss coating.

Step 6: Apply glitter of your choice to the layer of Kraftex Decoupage Sealant before it has set for that added touch of glamour, as well as whatever paint effects desired. Feel free to experiment!

1

Cut the putty into small sections

2



Mould each separate piece into different shapes

3

You should end up with a shape that is round and fairly sculpted

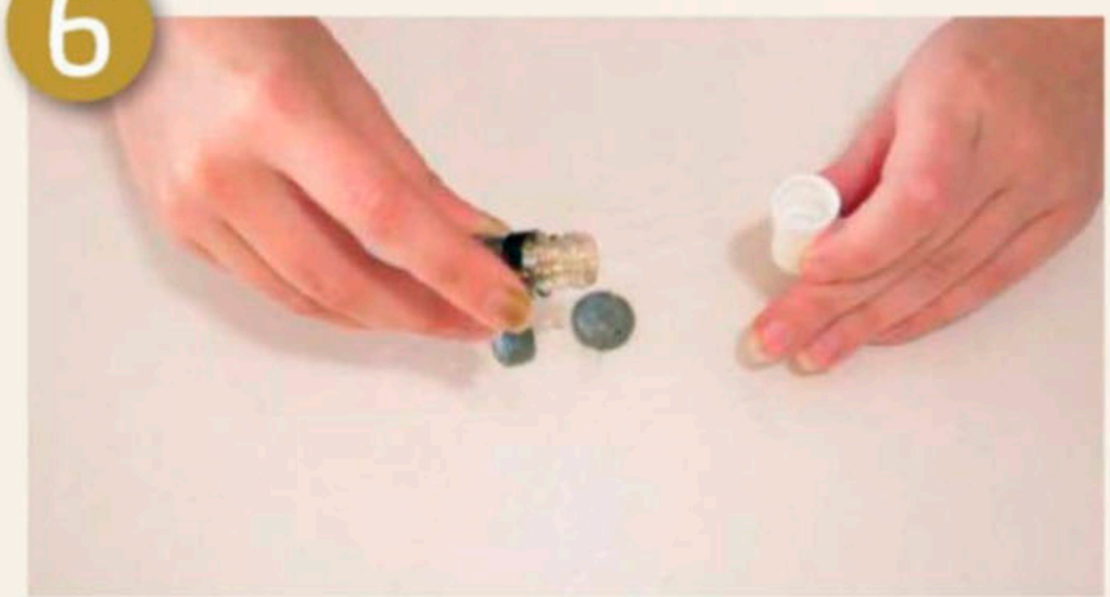
4

Here are some more examples of the shapes and sizes that can be

5

Use decoupage sealant to give the pendants a high-gloss coating

6



Apply glitter of your choice to the layer of sealant

ASK OUR EXPERTS

Our panel of experts answer your questions on DIY problems

Advice needed on machine selection

I need some advice on machine selection. I have designed a chair that I have a prototype out of MDF using my Festo circular saw track. All of the cuts are straight cuts with most of the cuts tapering (no parallel sides). The prototype works but now I would like to go for the real thing; making two chairs from a hardwood.

The problem I have is that with the track saw it is difficult to make repeated cuts accurately. I am looking at purchasing something a bit more accurate when it comes to repeating cuts. My budget is around R13 000. I am looking at jobsite or portable table saws (Bosch, Makita, Dewalt and the like). I am also looking at multifunction tables like the Wolfcraft Mastercut 2500 where I can use my circular saw and mount my router, or even the Triton 2000 workcentre. I will be doing the odd woodworking project, renovating kitchen and bathroom cupboards. One issue I have with these machines is the play/movement in the fence and also on the mitre tracks. Building crosscut jigs and setups like this I will be fine with to try and improve on quality. Any advice on my selection will be welcomed and appreciated.

Christiaan van Aardt, by email

Greg De Villiers from Vermont Sales replies: *That is an interesting question and there are a number of options. Firstly, with the Festool you can do repeat cuts using the parallel guides. Check out this video: https://youtu.be/z7D0yrZY8vU.*

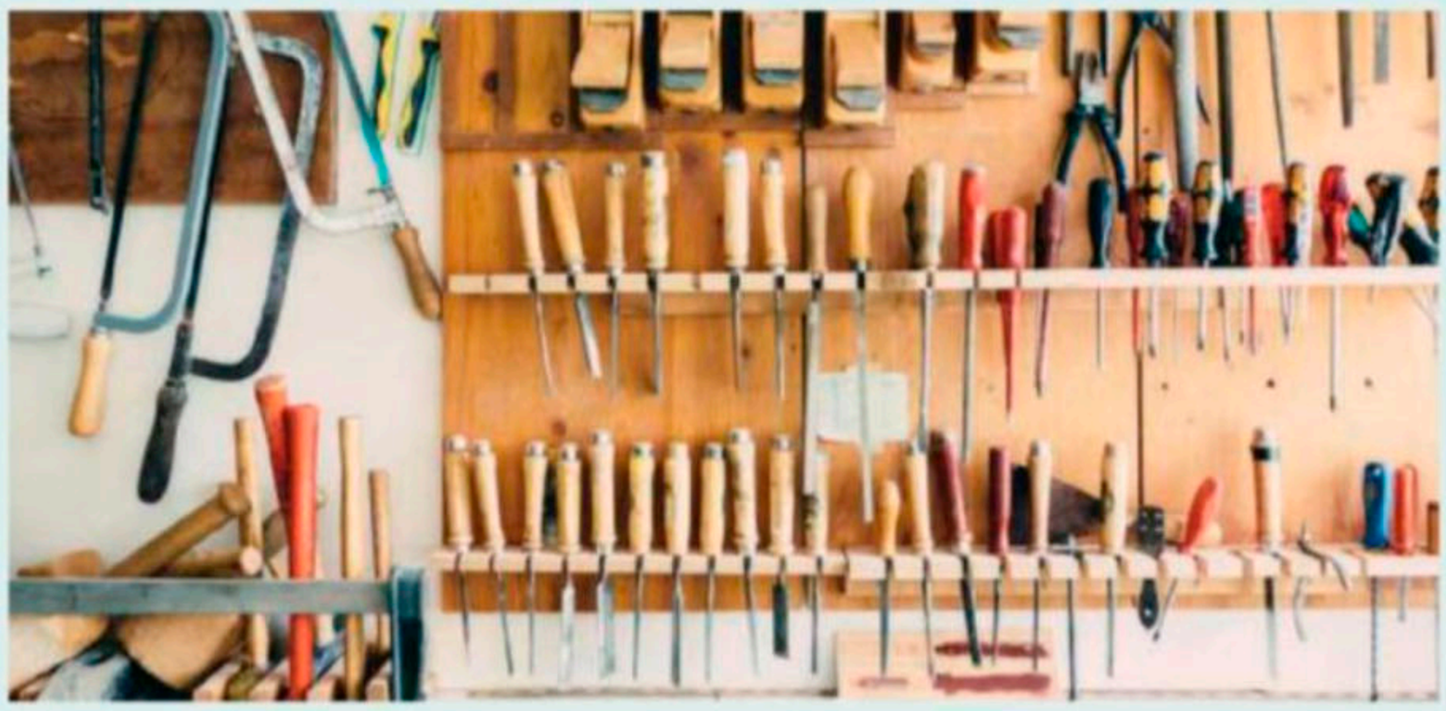
Then we have a table saw but not just any; we have the SawStop that delivers amazing results from a professional saw. There are 4 models available in South Africa and the best part is that they boast the famous SawStop technology that has injury mitigation technology (IMT).

Then we have a simple but very effective solution in the Kreg Rip-Cut. This accepts most saws and allows for repeat cuts. See it here: https://youtu.be/FpCbU-zXFjM.

Kreg have also now added a new option to the range. The Kreg Crosscut Station.

So, I am sure you will agree that there are a number of simple options. Depending on the needs and budget there is an option here to cater to many requirements. Personally, the SawStop for me remains the winner.

For more information, call 011-314-7711 or email greg@vermontsales.co.za



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Please note: Queries will only be answered in the magazine. Winners' prizes may take up to six weeks for delivery and are sent by the prize sponsor. Prizes are not exchangeable.

Our winning query comes from Christiaan van Aardt who wins a subscription to *The Home Handyman* magazine for a year.

How to deal with ceiling stains

We have a large, dark stain on our living-room ceiling that I believe to be caused by water. What can we do about this? Is there a cleaner that will remove it?

Ingrid Hugo, Richards Bay

Ed replies: *If you haven't found and fixed the source of the water that is causing the stain, then that is the first step. The water comes from above, of course, and could be a roof leak, a leaking plumbing pipe, or condensation from some metal object in a poorly ventilated ceiling void. If there is access to the ceiling void, you might be able to identify the source of the water. Roof leaks usually show up as stains on the roof rafters, and leaking pipes or condensation are often easy to trace by checking for wet insulation or stained ceiling board. Fixing the source of the water might require professional help, but there is little you can do about the stain until that repair is made.*

Eliminating the stain usually requires repainting the ceiling. Some do-it-yourselfers say they have removed small water stains by dabbing with mild bleach solutions or other cleaners, but that is seldom effective. You also cannot simply roll some ceiling paint over the stain – it will soon 'bleed through' the paint and show up again.

To eliminate the stain, you must first, once it is completely dry, paint over it with a primer. For the smoothest painting, the entire ceiling should be primed; if only the stained area is primed, there might be a visible difference between primed and unprimed areas. The room should be well ventilated when using the primer. When the primer is dry, you can roll on the finish paint.

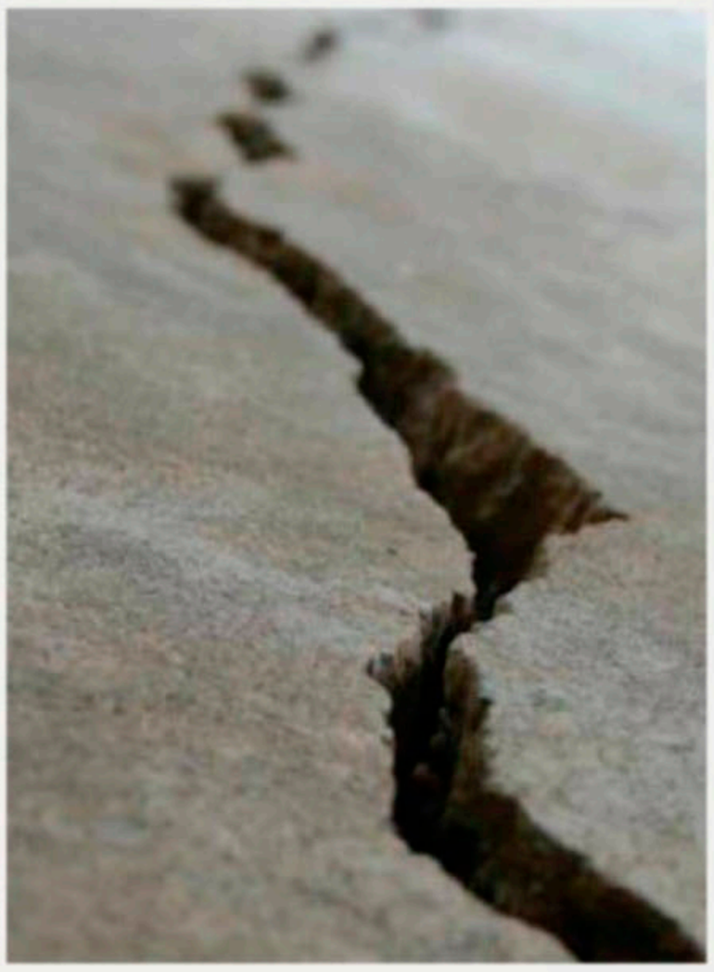
How do you repair a 'cement' driveway?

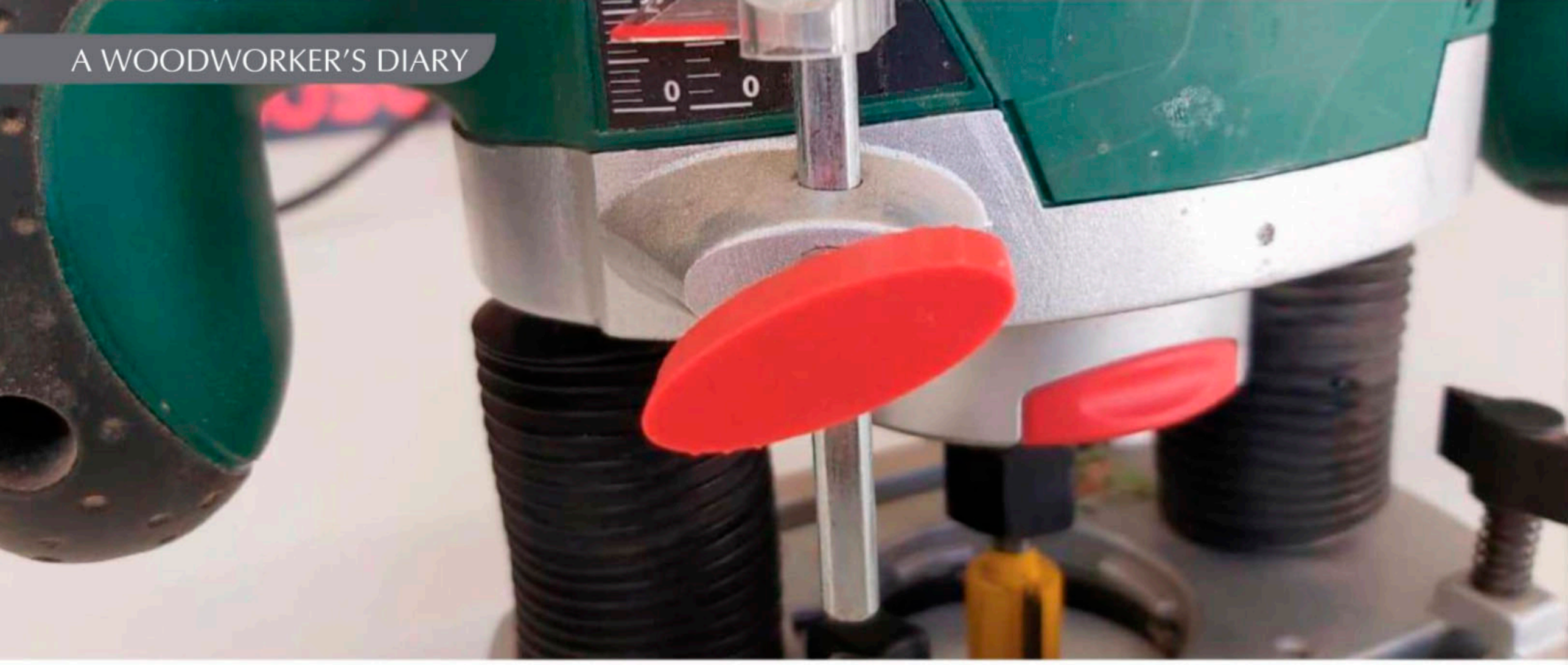
I have what I call a cement driveway and it needs some minor repairs. A pothole about 40cm in diameter is the worst. I recently went to a hardware store and said I wanted a bag of cement to repair my driveway. The salesperson said I probably didn't want cement. He tried to explain but got busy with others, and I left confused. Can you explain?

Gene Austin, by email

Ed replies: *Many people mistakenly give the name 'cement' to what is properly called concrete. Cement, also called Portland cement, is just one ingredient of concrete, and is also an ingredient of a number of other masonry products including mortar, used in laying bricks, and stucco, used as a finish for many buildings. Cement, which is a sort of binder, is mixed with such other ingredients as sand and, in concrete, with small stones called aggregate, which gives concrete much of its strength.*

You probably need a bag of concrete mix to fill the pothole; concrete mix is sold at hardware stores and home centres in bags of several sizes, all of them heavy. The dry mix is blended with water to produce the pliable material that is used to repair potholes, cracks, broken corners and so forth. Another product, called sand mix or topping mix, doesn't contain aggregate and can be used for some repairs to concrete, including overlays or toppings no more than a few centimetres thick and cracks up to a centimetre or two wide. To repair small concrete cracks, patching products sold in cartridges are often used.





ROUTING 301

My last two articles gave you (I hope) a good understanding of the router as a machine and the bits it uses. Now we move onto setting the router up for use.

>> Denis Lock

There are two set-up operations that must be learnt before starting to make the large variety of cuts that can be made with a router. The first is fitting the selected bit to the router. The second is adjusting the depth of cut. This article will explain how to perform these two operations.

Fitting the bit

I ask my students to bring their router with them to class. I have seen many router makes and models. Many have been brought with a bit already fitted. I have seen many routers with bits incorrectly fitted. What can go wrong with a task as simple as tightening a router bit into a router collet? What can go wrong is that too much or too little of the shank is inserted in the collet. The length of the shank on most ¼" router bits is 32mm. Very few have a shorter shank (25mm) and very few have a longer shank (38mm). The collet of ¼" routers is about 20mm long (Photo 1).

If less than 20mm of the shank of the bit is inserted into the collet then the full gripping power of the collet is not exploited and you run the real risk of the bit slipping. Inserting more of the bit (beyond the bottom of the collet) does not increase the holding power of the collet. It does, however, decrease the effect of sideways pressure on the router bit and lessens the likelihood of bending the shank. Well then why not just push the bit all the way home. Not that simple. Many bits have a small fillet where the shank joins the body (Photo 2). If part of this fillet is trapped in the collet the bit is not held securely.

My recommendation is to leave two or three millimetres (Photo 3) of bright shank exposed as a standard practice. If extra plunge depth is needed you can pull the bit out by up to 12mm but no more (Photo 4). Beyond this it is no go and you need to change your project design or change the machining approach. If you have an ½" router you can get a collet extender (Photo 5). Such an accessory does not exist for ¼" routers.

Any part of the router bit's shank that extends past the bottom of the collet goes into a hole in the armature shaft. In certain router models this hole is not all that deep and the bit can bottom out. As you tighten the collet the bit moves with collet. If the bit is touching the bottom of the armature shaft hole, it can't move and the collet scrapes along the bit while it is being tightened. This results in damage to both the collet and the shank. If your router has this problem let the bit bottom out, lift it by 1 or 2mm, tighten the collet by hand and then tighten with the spanner while the bit is clear of the bottom. There is 40mm clear in my Bosch routers: no problem here. My Triton routers only have 25mm clear and most router bits can bottom out. A common solution is to drop a rubber O-ring into the armature shaft. The compression of this O-ring allows the bit to move with the collet. I simply use the approach mentioned earlier: drop the bit in, lift it by 1 or 2mm and fasten.

One last question: how tight should I tighten a router collet? Do not overtighten it. I settle for the pressure I can apply to the spanner using one thumb. I apply pressure till it just becomes uncomfortable (Photo 6).

Setting the plunge depth

Before starting a cut with a plunge router it is necessary to preset the depth of cut. Five components are involved in this

operation. These are shown in Photo 7 and are: A – depth turret, B – depth rod, C – depth rod locking knob, D – depth pointer and E – depth scale. The manufacturers' documented depth setting procedure goes something like this. Fit the bit (observing the above advice). Place the router base on a smooth flat surface and plunge till the bit just touches this surface (see A in photo 8). Lock the plunge setting. Turn the turret to its highest position. Drop the depth rod so that it rests (see B in photo 8) on the turret and lock it. Slide the depth pointer so that it points to zero on the depth scale (see A in photo 9). If the depth pointer does not slide, make a note of the current reading. The router's plunge depth is now zeroed for the currently inserted bit.

Let's assume that we want to make an 8mm deep cut. Without touching the pointer unlock the depth rod and move it upwards so that the pointer points at the 8mm mark on the scale. Lock the depth rod securely (Photo 10). If the pointer does not slide add 8mm to the value that corresponds to the zeroed value and move to this calculated value. The router will now plunge 8mm deep when the plunge locking lever is released. Will it? If you are lucky it will be 8,0mm. In practice it will plunge somewhere between 7,5mm and 8,5mm. Why is this? Other than the hairline cursor depth pointer on the high-end Festool routers I find the pointers on other routers a joke. They all suffer from a potential parallax error of about 0,5mm. Multiply this by two: start reading and end reading, and you can be a millimetre out! Errors unfortunately normally don't cancel each other out. They accumulate. My advice is to ignore the pointer and depth scale and use a gauge to set the depth.

For depth settings of between 2mm and 12mm I generally use the shanks of my twist bits as a depth gauge. Let's use an 8mm twist bit as a gauge to set the depth of cut at 8mm. As before place the router base on a smooth flat surface and plunge till the bit just touches this surface (see A in photo 8). Lock the plunge setting and turn the turret to its highest position. Loosen and lift the depth rod and place the shank of the twist bit on top of the turret. While holding the twist bit drop the depth rod and fasten it while firmly pressing it onto the drill's shank (Photo 11). Now the router will plunge 8,0mm deep.

Depth gauges

My students and many of my readers know that one of my fundamental woodworking philosophies is "gauge don't measure." I certainly observe this belief when setting router bit depths. For depth settings of 2mm to 12mm I

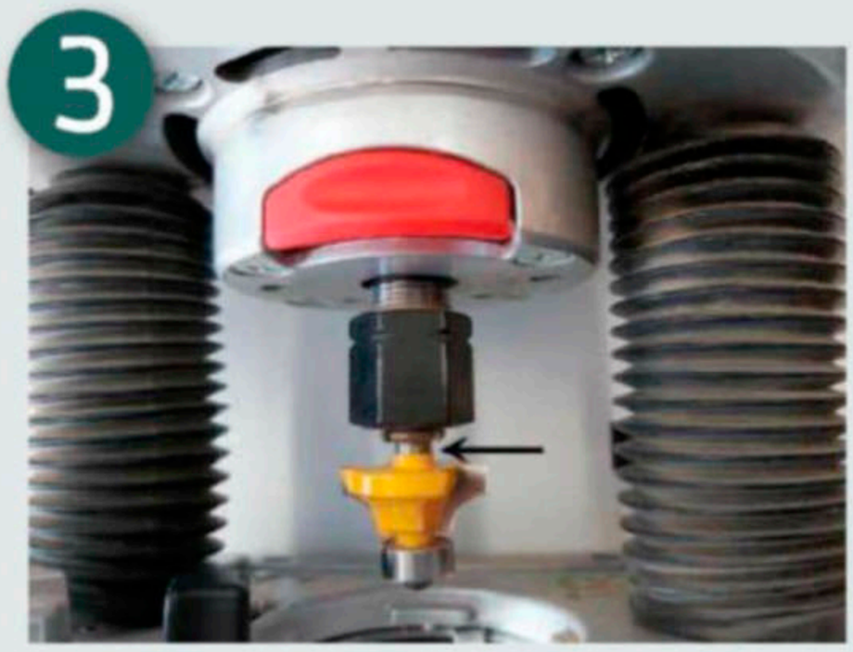
1

Size of ¼" collets

2

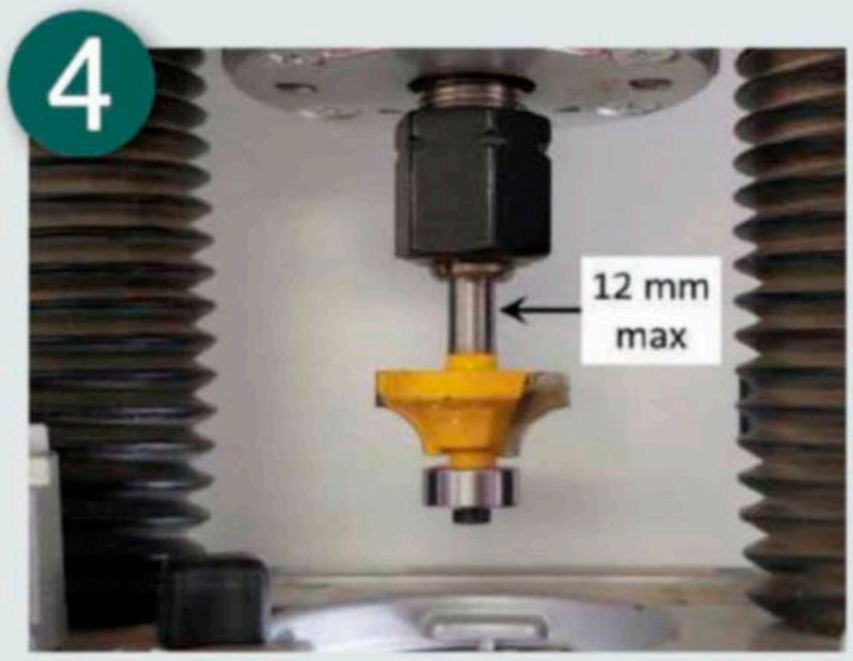
Shank length and fillets

3



Leave some silver showing

4

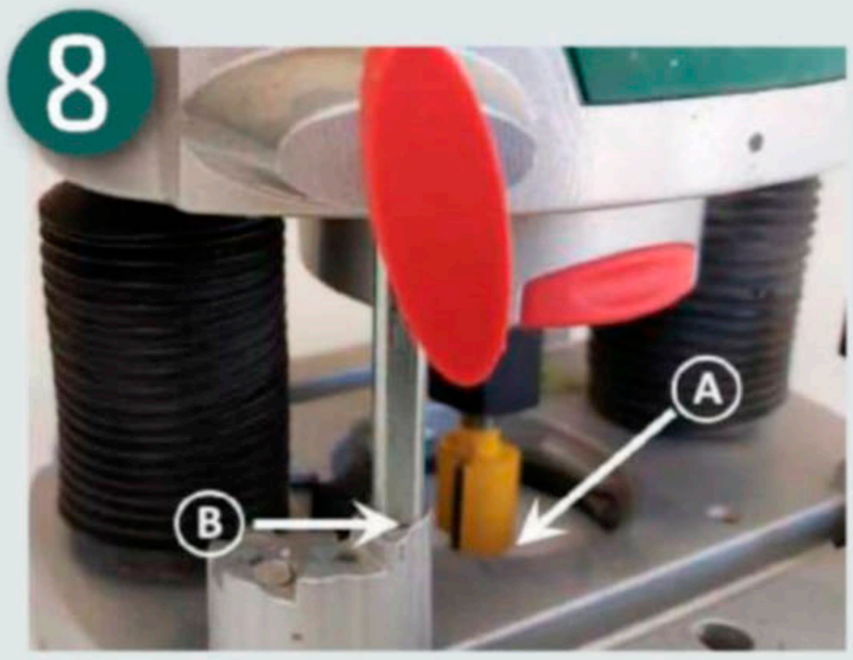


No more than 12mm

Collet extender

Thumb pressure

Depth setting components



Bit set to zero

use my set of twist bits as gauges. From 12mm to 25mm, I use the tips of my set of spade bits. Photo 12 shows the router being set up to cut 25mm deep mortices. I have made a set of gauge blocks (3, 6, 9, 12 and 16mm) from offcuts of MDF (see Photo 13). You will also notice three gauges marked 0,1, 0,2 and 0,3mm in Photo 13.

These are 80gsm (gram per square metre) paper, 160gsm card and 240gsm card. To give them their common names they are ordinary printer paper, light card and the stuff business cards (and Bicycle playing cards) are printed on. Paper and card make very accurate gauges. I prefer them to feeler gauges – no oil to stain my woodwork. An expired credit card cut in two gives a pair of 0,75mm gauges. Some offcuts from the local Mr Plastic provided some 1,0mm, 1,5mm and 2,0mm gauges. Next time I go overseas I will buy myself a set of brass gauge blocks. In practice I will often combine gauges from two or more groups.

Micro depth adjustment

Most routers provide a way of micro adjusting the depth setting. This is normally provided by some sort of threaded rod associated with the depth rod. Another technique is to use small bolts and lock nuts on the turret. I can never remember whether to turn clockwise or anticlockwise. I also can't remember whether one turn equals one millimetre change or what. I use the depth gauges discussed above. Let's assume that the shoulders of rebates don't quite go home and the corresponding dados (just cut) need to be 0,5mm deeper. Leave the plunge depth locked on the router.

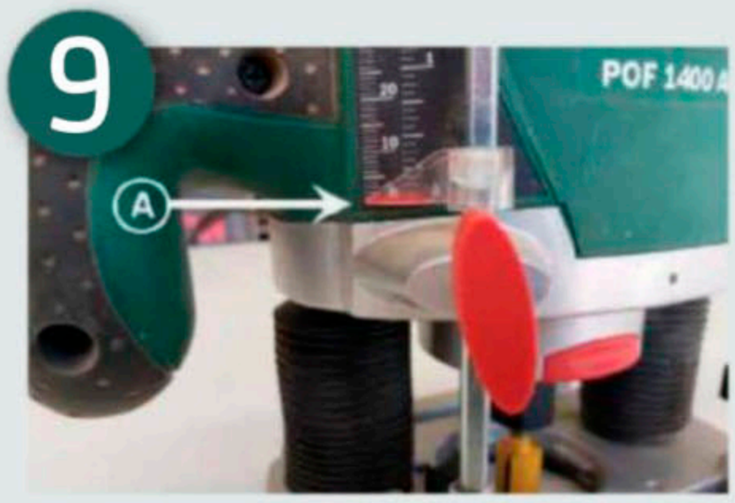
Unlock the depth rod and slip a 0,2 plus a 0,3mm gauge under it (Photo 14) and relock it. Unlock the plunge lock and remove the gauges, plunge till the depth rod hits the turret and relock the plunge lock. Now shave 0,5mm from each of the dados for a perfect fit. That is how to fractionally increase the depth of cut. What about the opposite case: fractionally decreasing the depth of cut? I am cutting half-lap joints and the test cut is 0,5mm too deep. Leave the depth rod locked and unlock the plunge lock. Place a 0,2 plus a 0,3mm gauge on top of the turret and plunge till the depth rod touches the card gauges. Lock the plunge: it is now 0,5mm shallower and your lap joints require next to no face sanding.

Multiple passes – multiple depths

Don't strain your router. Two light passes will often give a better result than one heavy one. It will also be less wear and tear on your router and bits. A widely accepted rule states that the maximum depth of cut in one pass should not exceed the lesser of the bit diameter or shank diameter. See Photo 15 for some examples. When I cut a 6mm slot through a piece of 16mm MDF I make three passes increasing the depth by 6mm on each pass. If the slot were cut in a piece of high density wood I would make six passes increasing the depth by 3mm on each pass.

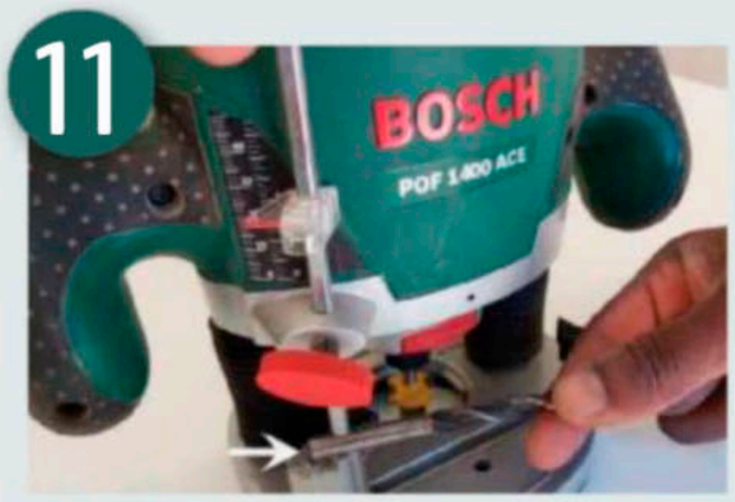
A number of modern routers have multi-step (up to eight) turrets (Photo 16). These steps are generally 3mm each. Instead of fiddling with the depth rod simply turn the turret two clicks (the MDF slot case) or one click (the high density wood case) after each pass. If you have the older three-step style turret use a 3 or 6mm gauge (as described under the Micro adjustment section above) between each step.

The joinery for fine woodworking must be very accurate: my objective is to work to a tolerance of 0,1mm. The most accurate joint cutting machine is the router. I have told you how to set it up to within 0,1mm. Go for it!



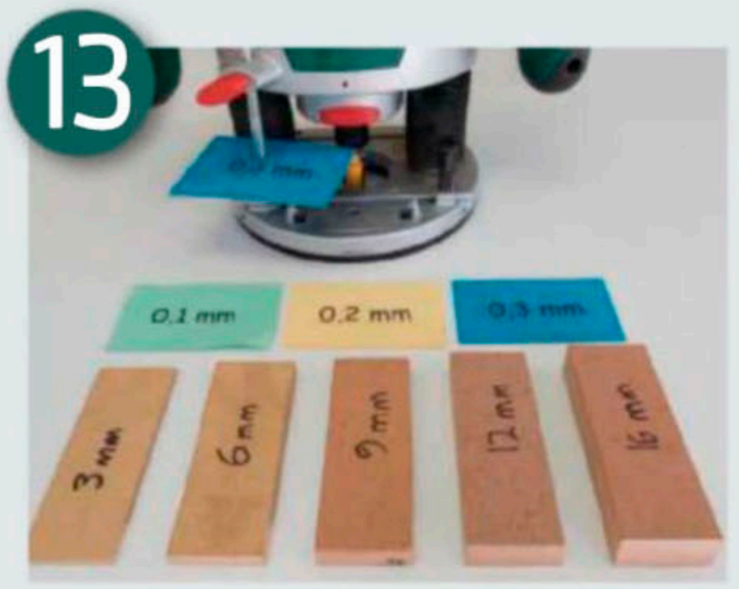
Pointer set to zero

Pointer set to 8mm

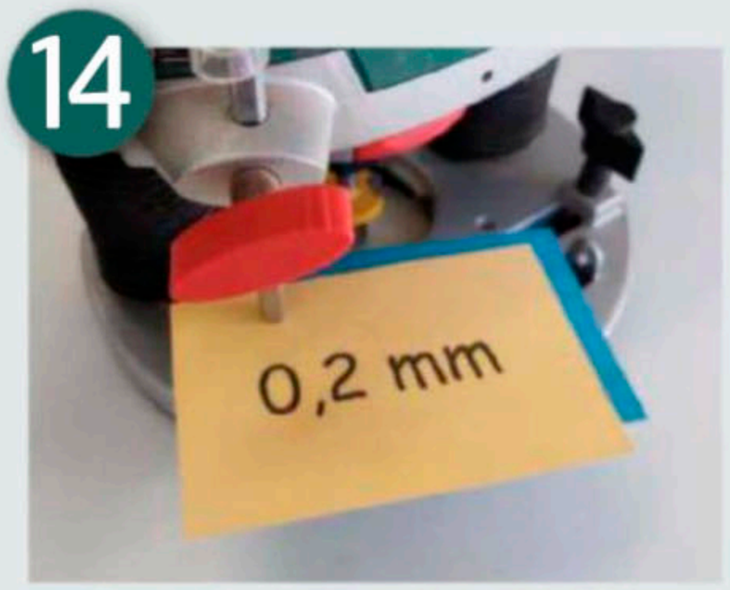


8mm gauge

25mm gauge



More gauges



Micro adjust

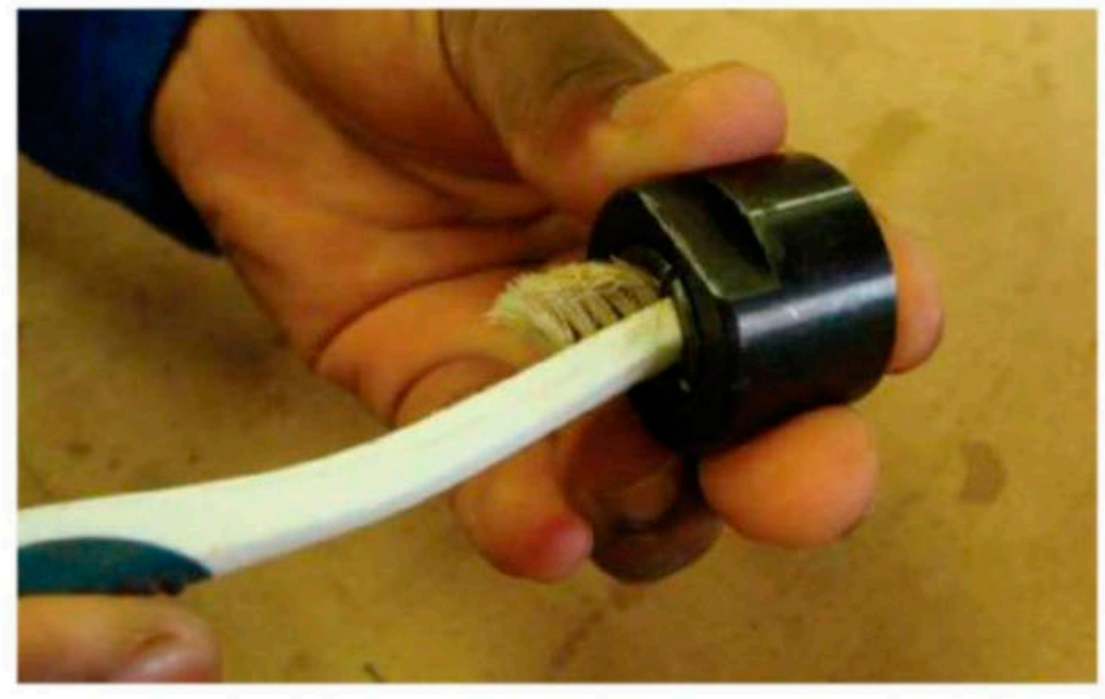
Multi-step turret

16

Examples of one-pass maxima

Cutter diameter	Shank diameter	One-pass maximum
3 mm	1/4"	3 mm
10 mm	1/4"	6 mm (1/4")
6 mm	1/2"	6 mm
16 mm	1/2"	12 mm (1/2")

One-pass maxima



ABOUT DENIS:

Denis Lock runs a woodworking school and shop. As a result of the COVID-19 pandemic hands-on courses are temporarily suspended. He can be contacted at denis@tacazze.co.za or 082-267-5948. Visit his website at www.routingwithdenis.co.za

WOODWORKER'S CORNER

Sharing techniques, ideas and a love of wood

Tips for buying used woodworking machinery

We live in a fast-paced world with technology having an impact on almost every sector. As a result, woodworking machinery has come up with time and labour-saving advantages while ensuring a high accuracy that manual techniques can't reach. It's worth noting that buying woodworking machinery for personal use or work in a commercial workshop is a massive investment. However, unlike buying other industrial tools, woodworking machinery comes in a wide variety, including portable handheld power tools and stationary machines.

While there's a wide range of machinery, it's also everywhere in the market. Finding woodworking machinery is quite easy, and you don't have to look very far. The most challenging part comes in choosing the right machine that meets your woodworking needs. Before buying, let the following tips guide you to make the right selection.

Start doing research

Woodworking tools can be quite complex, especially for beginners. Generally, you will have to start with a little research about how to use these tools, which terms mean what, and which brands are dominant in the woodworking industry. Since used woodworking tools are simply second-hand tools listed by their owners, these are bought from tool retailers that you can find anywhere near your area. To have a brief overview of these tools, search online for retailers as they usually feature categorized tools, straightforward details and specifications, and their retail prices.

After having a quick glance on the internet, visit a tool retailer store physically. This way, you will have an idea of the sizes of these tools and how they work. While exploring the store, you can find the top-of-the-line tools that every woodworker must have. Also, you will have an idea of the price range of these tools, and you can compare them while holding them in your hands. However, these new tools only serve as your guides. You will be buying used tools so the efficiency and performance will not be the same, as well as their prices.

When buying any used woodworking machinery, one of the first things you need to consider is its safety. If you didn't know, the woodworking industry has one of the highest accident rates, whether from industrialists or hobbyists. Before you buy used woodworking machinery, make sure an expert has checked it if it has the required guard and safety features. It should also be functioning correctly for it to perform your tasks smoothly. Another aspect on safety is buying from a stranger – ensure that the person you are meeting up with is who they say they are, and take note of the latest tricks used by scammers before committing to any purchase or sale.

A machine that has been abused is straightforward to spot from a distance. If you want used woodworking machinery, the first thing you should do is give it a visual inspection. If you notice any broken or missing parts, make sure you get a discount or don't proceed with the purchase. Likewise, if the machinery is rusted, you may want to be careful before buying it. However, that doesn't mean you should avoid everything that has rust. Sometimes there could be a handy tool hiding under the coat of rust. If possible, try the used machinery first by plugging it in and listening to it running or doing some work with it.

Know what you want

Buying used woodworking machinery can be quite tricky, but when you have a plan for the tools you are looking for, no one can take advantage of you. You'll get a good deal and save a lot of money in the process.

There are reasons for buying used woodworking machinery, and one of them is to save money. Determine the amount you are willing to pay first, then check the price of the tool you are looking for when it's new. Lack of knowledge can make you pay the same fee of new machinery for a second-hand machine. Therefore, do research and determine how much the tool you want to buy should cost beforehand. When you buy anything second-hand, it gives you a lot of joy when it works out, and you can look back and say it was worth it.

It can be exciting hunting for used woodworking machinery, especially when you meet people and hear their stories. It can also be a daunting task to get what you want at an affordable price. Settling for second-hand woodworking tools can save you a lot of money, though it can be a bit more challenging that simply buying brand new ones. However, once you come across the best second-hand tools that still work past their expected performance, then you definitely have yourself a worthy investment.

Afriwood to be held in October

While we are fully aware that it is unlikely that you will hop in the car for a quick drive to Kenya, we still wanted to let you know about Africa's prime woodworking and manufacturing expo which takes place from October 7-9 in Nairobi.

Afriwood 2021 is the foremost exhibition that offers you a chance to meet wood and woodworking professionals and develop ideas for increasing the range and quality of one's business. It has a vision to be the platform for creative ideas and new technologies, as wood manufacturers and traders turn their attention towards innovative resources that would initiate business. Kenya, the hub of the East African Continent, is the place where the wood industry will meet.

Afriwood 2021 is the event for the latest innovations and technologies and will become the platform of progress across the wood and woodworking sector for Africa. Exhibiting at this event will connect you with the rest of the wood industry worldwide. Trade visitors, professionals and serious buyers from all over the continent will use Afriwood as an opportunity to strengthen ties with new customers, network and catch up on the latest technologies. Being a highly specialized show, Afriwood provides an excellent opportunity for local and international companies to showcase and learn about wood and to build new strategic relationships with buyers, traders and investors globally.

Afriwood 2021 is a meeting ground for manufacturers, importers, traders, distributors, converters and end-users in the wood industry. Launching new products and latest technologies are the highlights of Afriwood 2021. Exhibitors from East Africa and abroad will be displaying their products and around 12 000 trade visitors are expected to be at Afriwood 2021, COVID-19 depending.

For more information, visit www.expogr.com/afriwood

Common workshop fire hazards and how to prevent them

Workshops obviously come with inherent safety hazards like sharp cutting edges and heavy wood, but perhaps one of the most dangerous hazards is highly combustible wood dust. Likewise, fire safety is especially important when working in workshops.

Wood dust

Accumulated wood dust significantly increases the chance for fires and explosions, as it is highly combustible in the presence of an ignition source. Wood dust built up in an enclosure can explode under pressure, or when ignited by naked flames, impact sparks and faulty electrical equipment.

You can reduce the risk of wood dust fires by cleaning equipment regularly to prevent sawdust build-up, and placing electric panels and transformers as far away from dust-producing equipment as possible. Make sure your shop is properly ventilated, and control wood dust build-up by cleaning floors, walls, shelves and ceilings regularly as well.

Other Ignition sources

Workshops contain large quantities of potential fuel for fires. Beyond wood and sawdust, other flammable materials like paints, oil finishes, adhesives, solvents and liquid propane can all be potential fire hazards.

Prevent risk of fire by properly storing flammable materials. Always perform tasks that are prone to fire hazards, like spray-painting and welding, in open, well-ventilated areas. Protect electrical systems by using appropriate breakers and grounding all equipment. Try to keep combustible and flammable materials like wood and chemical solvents away from each other, and away from ignition sources.

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7 DIY hacks you've probably never tried

Even if you're an experienced DIY'er, there are probably a plethora of home improvement and crafting hacks you've never tried before. Stay in the know and learn how to do things more easily as you work through projects.

1. Use clothes peg to hold nails or screws

When you're using a hammer or screwdriver, the nail or screw you're working with may not always stay in place or stay straight. Luckily, there's a hack for that! You can use a clothes peg to hold the nail or screw in place until it's secure enough to stay on its own.

2. Toilet paper roll seedling pots

If you're working on your garden and want to start some seedlings indoors, you don't necessarily have to go out and buy containers for them. Instead, make them out of something you surely have in your home: toilet paper or paper towel rolls! All you have to do is cut the roll to size, fold the bottom in to close it off, and glue it shut. It's as easy as that!

3. Hold your spot on a tape roll

Whether it's duct tape, masking tape, or painter's tape, it's frustrating to lose the edge and have to search for it every time you need a piece of tape. Avoid having to do that by putting a bread tab at the end of the roll whenever you're done using it. There's a mystery solved!

4. Shoe rack for workbench items

Use a plastic, hanging shoe rack with multiple openings and compartments to organize all of your must-have workbench items. This can include things like screws, nails, nuts, bolts, small tools, and anything else you have on hand. This will help to keep you easily organized for all future projects.

5. Map out a gallery wall

Gallery walls can be intimidating to hang as there are so many moving pieces. Planning, measuring, and mapping out where everything will go may seem like a cumbersome process. However, using contact paper makes this simple. Use removable contact paper to easily preview how your gallery wall will look. This allows you to easily rearrange the layout to get it to your liking prior to drilling holes in the wall.

6. Hold instruction manuals up

If you're using an instruction manual to put something together or work on a project, use a pants hanger to affix the manual to it, keep it open, and hang it on a cabinet knob or some other hook to keep it at eye level.

7. Remove adhesives by freezing

Adhesive tags and stickers on things, like home decor items, can be really hard to get off. To simplify this process, just place the item in the freezer for a few hours if possible. Once you take it out, the sticker should peel off easily without leaving much of that pesky residue.

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