

# The Home HANDYMAN

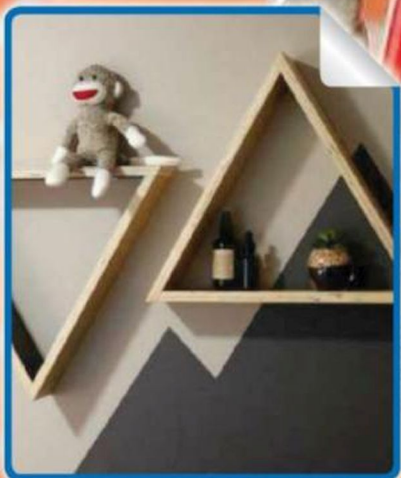
November/December 2021 • Vol 31 No 11



SA'S  
ORIGINAL  
**DIY**  
MAGAZINE



**MAKE A SIDE TABLE  
FOR YOUR BRAAI**



**STEP-BY-STEP  
TRIANGULAR SHELVES**

## Improve your home!

- Garage and gate troubleshooting
- Plumbing fixes which you can do yourself
- Install laminate flooring

**plus**

- Make a wall-mounted wine rack
- A beginner's guide to furniture restoration
- Damp proofing step-by-step
- Young DIY'er: Make resin coasters
- Ideas to beautify your balcony



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# COMING SOON

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## FROM THE WORKBENCH

Humans pride themselves on their ability to tackle any task in DIY style. While many are well skilled to take on the task of decorating or building their own home, others seem to have less luck with the hands-on approach. It seems that while some tasks are performed with grace and skill, others rely on sheer good luck and a sense of humour to get them through.

The following tales of DIY woe really gave me a chuckle, but out of others misfortune, we can always find lessons.



*"When we moved into our new house, one of the first things on the list was to install a cat door between rooms so our cat could do its business. I removed the door, set it on sawhorses and marked the opening with the cat-door template. After I made a remarkable splinter-free cut, something didn't look right. On further inspection, I realised that I'd cut the opening at the top of the door. The cat's name is Magic, but..."*

*"A part from my young son's plastic potty had somehow gotten stuck in the toilet trap. I couldn't snake it out, nor could the plumber, who left saying, 'Buy a new toilet.' But I had a brilliant idea: I'd burn it out! I pulled the toilet and dragged it outside. There I poured charcoal lighter fluid down the trap and lit it up. Standing back, I basked in the glory of the flames and my phenomenal ingenuity... until the bang. The commode literally cracked from the heat. I bought a new toilet."*

*"I take my painting prep very seriously. So before painting the bathroom door, I took off the door handle rather than taping around it. But when I closed the door and heard the lock click, I realized I had left the latch in the door. 'No need to panic,' I thought to myself. I fit the handle back into the door – but the latch wouldn't catch. I then tried to manually pull back the latch – but it wouldn't budge. Then I used my nail punch and hammer to remove the hinges – a sure bet – but the door was so tight in the frame I couldn't budge it. There I was, trapped in my own bathroom. I considered escaping through the window, but given it was on the second storey of our home, I decided against it. Mild panic fuelled a couple of karate kicks that split that hollow-core door into splinters. I think I'll paint the new door before I hang it."*

*"With a second child on the way, we needed an addition on our house, but first we had to take down a huge tree that was in the way. To save money, my husband and his dad decided to cut it down themselves. They devised a plan with ropes to guide the fall as they cut. After about a half hour of chain sawing, I heard a thunderous crash and ran out to see what had happened. The rope trick obviously hadn't worked and the trunk had fallen smack in the middle of the deck (which was not part of the remodelling plan). Thankfully, no one was injured, but we ended up hiring a contractor to remove the old deck and build a new one, which was way more expensive than hiring a tree removal service."*

*"After living in our old house for years, we decided to go all out and remodel the bathroom. Our dream was to install a Jacuzzi tub with a beautiful tile surround. After all the backbreaking work, we finally got to the fun part – setting the tile. We did a flawless job! Later that evening, we realised our cat was missing. After looking everywhere, we heard a distinct meow coming from the bathroom. Realising that the sound was coming from the new tub surround, we carefully cut through the tile and cement board and found our cat alive and well. We made the best of a bad situation – our rescue hole became a maintenance access panel that we probably should have installed in the first place."*

We hope you enjoyed these stories as much as we did, and we would love to hear yours. If you have a tale of your own DIY disaster, please feel free to send it to us at [editorial@homehandyman.co.za](mailto:editorial@homehandyman.co.za).

Gregg

# The Home HANDYMAN



[www.homehandyman.co.za](http://www.homehandyman.co.za)

## 2022

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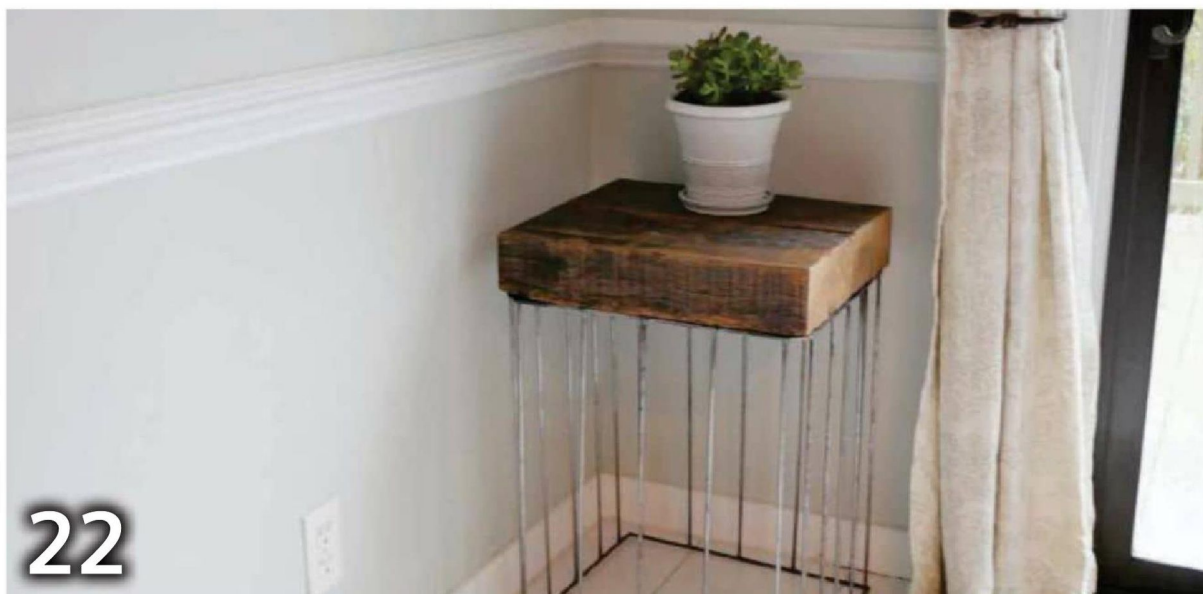


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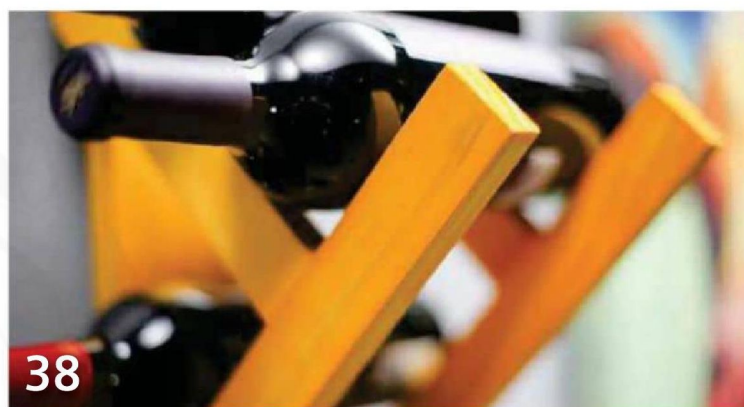
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# OFF THE SHELF

Your guide to the latest products in the world of DIY

## Versatile cordless sander

The Makita DBO180Z Cordless Random Orbital Sander provides excellent performance with three selectable speeds

The Makita DBO180Z 18V Lithium-Ion cordless random orbital sander is ideal for finishing wood and plaster surfaces before painting, stripping off old paint and smoothing between finishing coats where necessary.

The DBO180Z is supplied with the dust bag and has three speeds – fast, medium and slow. Carpenters, professional woodworkers and the serious DIY'ers will love the versatility of this cordless model. The 18V Lithium-Ion batteries and fast charger are sold separately.

For more information, call 011-878-2600 or visit [www.makita.co.za](http://www.makita.co.za)



## Protect your home for Longer

Plascon TradePro BarrierTEX offers a powerful combination of enhanced flexibility thanks to the latest technology

Keeping the exterior walls of a home or building looking newly painted for longer can be a challenge, especially with the harsh South African weather conditions. Walls naturally expand and contract, which can result in cracked and peeling paint.

The solution? The newly released Plascon TradePro BarrierTEX is a textured paint for exterior walls that exceeds in durability and appearance with market leading MicroFlex Technology.

Laboratory research has shown that competitor offering are less flexible than Plascon TradePro BarrierTEX. This results in a more brittle coating, which cracks and peels more quickly. Understanding the gap in the market for a better product with enhanced flexibility, Plascon stepped in with a product aimed at both residential consumers and professional contractors alike.

To achieve a longer-lasting textured effect, the innovative Plascon TradePro BarrierTEX is formulated with Microflex Technology for enhanced flexibility to manage the stresses of the environment. It has been created specifically with the micro movements of walls in mind. This revolutionary exterior coating has a textured finish which also hides plaster imperfections and provides a quality, reliable and long-lasting coating. Plascon TradePro BarrierTEX will ensure that your exterior walls remain crack-free for longer with a reduced rate of peeling.

Coming in 12 trendy colours, Plascon TradePro BarrierTEX ensures convenience and provides a diverse range of colour choices. For those in search of a lighter exterior, the gentle hues of Karoo Clay (UBT 004), Glazed Cement (UBT 008), Northern Sand (UBT 006) and Tan Leather (UBT 010) are all ideal options. If you are in search of a bolder colour, you can take your pick from Dark Knight (UBT 005), Thrashed Wheat (UBT 007), Sprinkle (UBT 009) and Wild Nut (UBT 011).

Plascon BarrierTEX with Microflex Technology gives you more flexibility to choose your own colours with, two tint bases – a pastel and deep – for enhanced efficacy. You'll be able to select your preferred colour from a wide range of Plascon Inspired Colours. A first for the Plascon textured range, a 1-litre pack will be available to make sampling and touch-ups much easier.

Plascon TradePro BarrierTEX offers a powerful combination of enhanced flexibility thanks to the latest technology; that textured aesthetic appeal you've come to love; and a contemporary colour range. All these advantages are backed with the formidable Plascon TradePro BarrierTEX 8-year guarantee, so that your exterior can boast that 'newly painted' look for longer.

For more information, visit [www.plascon.com](http://www.plascon.com)





## Applicator guns for sealants and adhesives

One of the most important tools for your toolbox, which is often not given much thought, is an applicator gun

Hardware outlets sell a range of basic DIY, semi-professional and professional applicator guns. Den Braven recommends buying the best applicator gun you can afford to ensure ease of application. Some adhesives and sealants are of a thick consistency and are difficult to apply using a basic applicator and can result in the applicator gun buckling and breaking. When applying sealant to large areas such as ceiling cornices or expansion joints, the constant flexing of the hand to pump the gun and cartridge can take its toll – leaving one with an aching hand and arm. Look out for Den Braven's video on how to use an applicator gun on their social media platforms.

For more information, visit [www.denbraven.com/en-sa](http://www.denbraven.com/en-sa)



## The most powerful Festool SDS hammer drill bits

No matter whether you are drilling into reinforced concrete, natural stone, artificial stone, or masonry – the new SDS drills offer long service life, precision and economic efficiency



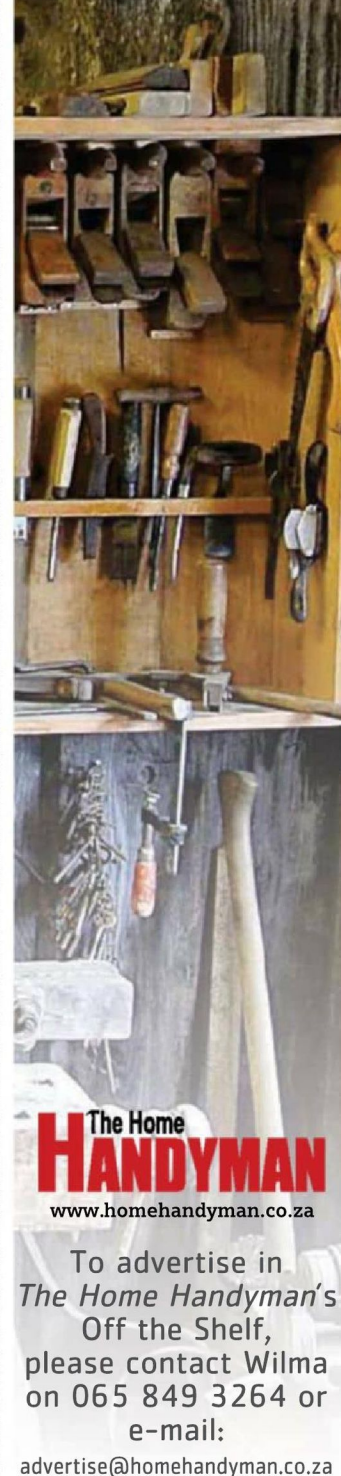
"The reinforced drilling head is manufactured from high-quality solid carbide. The four-edge design provides maximum safety when drilling into reinforced concrete, since the risk of the drill bit catching on the reinforcement is considerably reduced," says Michael Arnold, Product Manager at Festool. One clever detail lies in the centring point, which can be used to position the drill bit with extreme precision and pinpoint accuracy. The wide dust outlets remove the drilling dust at an optimum rate, enabling a high drilling speed and allowing you to make rapid progress in your work.

The benefits of the new hammer drills are the pinpoint positioning of the drill bit thanks to the centring point for drilling precise holes. They are extremely economical thanks to the long service life of the solid carbide head that ensures an extremely long tool life when drilling into concrete and reinforced concrete. The large dust removal channels with the ideal spiral design ensure quick drilling results.

So, if you are an interior decorator hanging blinds, lintels are no problem. Or an electrical contractor installing cable trays, hard concrete has nothing on you. Plus, you can do this all dust free in conjunction with Festool Dust extraction systems.

For more information, call 011-314-7711 or visit [www.vermontsales.co.za](http://www.vermontsales.co.za)

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# VOICE YOUR VIEWS

Do you have any thoughts or comments on DIY issues?



Share your  
opinion

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number (office hours)



**John  
Boughton**

Wins a state-of-the-art  
power tool from Makita



Prizes are not exchangeable

## Some comments, plus a staircase toolkit



Your magazine invited me to voice my  
views, in *The Home Handyman* July/  
August 2021 Vol.31 no. 7 – thank you!

Prerequisite: I am 70-year-old and  
‘down scaling’ I have ‘all’ I need  
regarding workshop equipment &  
tooling. Do not consider this mail  
for prizes! Let the ‘next’ generation  
benefit. (All I periodically need is a  
couple of Castle Milk stout’s and a  
bottle of scotch, which I can afford!)

My pedigree: I am a retired Toolmaker  
(Transnet – 42 years’ service at  
Koedoespoort). I was also a voluntary  
fire fighter during this time. I was  
appointed as a health & safety rep in  
around 1990, which means I have a  
passion for what I say and do!

Now, my views. Page 61 – Common  
Workshop Fire Hazards. I agree with  
all the comments but wish to point out  
that static electricity is a major factor  
to always keep in mind for all fire  
ignitions.

Nowadays there is an aerosol cleaning  
agent (brake cleaner) which is  
fantastic and is becoming a common  
consumable in home workshops. It is  
a highly flammable, vaporising liquid  
– I know an article on this product is  
a must to inform your readers, safety-  
wise!

Page 18 – Choose the Right Fixing for  
the Job. Your article is very informative!  
There is no harm in mentioning high  
tensile bolts, cap screws etc. There are  
several variations of threaded rod on  
the market. An article on this subject  
will only enhance the safety of the use  
with these consumables.

An article regarding welding  
on fasteners is also critical  
to emphasise collapse under load.  
(I am prepared to discuss this whole  
paragraph in detail (layman’s terms) if  
you wish).

I personally detest welding, glue and  
nails. I frequently modify nails and use  
them as rivets.

Page 5 – Off the Shelf. This is a delicate  
subject. I realise that your magazine is  
not a ‘selling column’, however, the  
photograph with ancient tools got my  
mind in gear!

My grandfather was a ‘civil carpenter’  
employed by SAR&H. He passed away  
before I was born (in 1947) and I was  
led to believe that he was a staircase  
fundi. Now, I have his ‘complete  
toolkit’ in my possession. As I said, I am  
down scaling. It is time to part with this  
inheritance. I believe there is always





someone who knows someone who knows someone who will be interested in this 'kit'.

I will sell it, but no picking!

Good luck when deciphering all this info, maybe you can use it!

**John Boughton, Pretoria North**

**Ed replies:** Thank you John, and no matter what you say, your letter is a deserving winner this month! May I

*suggest that you donate it to a worthy cause, or if you would prefer, we at The Home Handyman can arrange that for you?*

*Regarding the contents of your letter, thank you very much for your kind words. As for the staircase kit, we are happy to act as the go-between, so any interested parties can contact us at [editorial@homehandyman.co.za](mailto:editorial@homehandyman.co.za) and we will pass on John's details.*

## Why woodworking is good for me

Woodworking can mean something different to everyone. For some it's an opportunity to stretch the creative muscles. For others it's a source of stress relief. For many of us, it's a connection to our past or families.

Woodworking is good for me because it keeps me close to my father and reminds me of the projects we worked on together over the years. He always told me, "Once you get sawdust in your hair, you'll never get it out." Woodworking is good for me because it allows me to create something useful and lasting.

Woodworking is who I am. It makes the world go away for a while and I can express what is going through my mind at the time. When I close my doors and put on some classical music, my mind stops to think and

everything goes to my hands with no influence from the everyday stuff. I have no plans or diagrams of anything in my shop – I just do what feels right. Sometimes I feel like a blind man feeling his way through the world.

I love woodworking because it teaches my children that you don't have to rely on others to build something for you to buy in a store. They appreciate the furniture I build and tell people with pride that I built it. I love that my children are seeing a world outside of what they can buy in a store.

There are so many more reasons why I love woodworking, but these are the ones which came to as I was writing this letter. Thanks for sharing all the projects, tips and techniques in your magazine.

**William O'Brien, by email**

## Reader's projects



# The Home HANDYMAN

[www.homehandyman.co.za](http://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](mailto:editorial@homehandyman.co.za)



## How coronavirus has made us all very handy

As we hunker down in our homes, many of us are finally taking on those DIY projects we had been putting off. I recently read an article online which said that for many homeowners across the country, the coronavirus-imposed quarantine has presented an opportunity to head over to the local hardware store and launch a few DIY projects around the house.

They may be taking on repairs that they've been putting off for too long, or they might be focusing on small projects around the house that they suddenly realised needed immediate attention now that they're spending so much time at home.

Local hardware store owners say that in addition to coming in for gloves, masks and disinfectants, people are also buying parts for emergency fixes, like toilet seat covers, and home preservation projects like paints to tackle some easy fixes.

For my hubby and I, we added edging around our garden, repaired our gutters, repainted our bedroom and made a rustic coffee table. We still have a big 'to-do-list', but if there was one bright side to the global pandemic, it is that we were able to rekindle our love for DIY!

**Maggie Jordan, Pretoria**



## Vermont Sales opens innovative trade exhibition centre

The successful annual Vermont Sales Open Day Shows have had to be put on hold due to COVID-19 and the lockdown restrictions, yet the company has come up with a unique alternative. By converting and revamping its previous head offices into a state-of-the-art customer exhibition centre, the company are able to showcase its world class brands on a rotational basis, allowing small groups of customers the opportunity to view international brands and new product ranges in an uncluttered environment.

The new centre includes several tailor-made private areas for permanent brand exhibits. The exhibition space will be utilised for an individual brand or range to be shown each month, with new methods of marketing and merchandising of products in a store environment, along with support material. Product will also be demonstrated in this space, with a large screen showing the products at work, or for training purposes.

"The exhibition centre will focus on the brand of the month," says Dale Englebrecht, Director Vermont Sales. "The opening show this month was for the AirCraft brand of air tools, compressors and accessories; the team also showcased other leading brands and new products at the same time, such as Worx, Pony, CAT, and Bernzomatic."

"The core focus is to offer one-on-one time with the key decision makers from the trade, retailers, and dealers. The small, personal groups will allow us to offer dedicated time and service. On display will be the full range of products, new and current, merchandising concepts, POP, and POS material, to showcase the brands and allow Vermont Sales' brand managers, key accounts team members and management to meet, and touch base with customers," Englebrecht says.

Experienced teams from Vermont Sales are on hand during the exhibitions to assist all customers, along with a full catering set up and coffee bar. The centre is open to all trade and retail customers.

**For more information, call 011-314-7711 or visit [www.vermontsales.co.za](http://www.vermontsales.co.za)**



## Innovative container hardware stores launch in Cape Town

Western Cape based family-owned hardware chain, Brights Hardware, has embarked on an innovative mentorship and entrepreneur nurturing project that sees micro hardware stores being opened in shipping containers in low-income areas of Cape Town.

The Container Store initiative that Brights started in collaboration with The Hardware Co. kicked off in 2019, with the first container hardware up and running in Khayelitsha by October 2020. The second container was recently completed in September 2021.

"The first container hardware store is an impressive double storey space created out of two shipping containers stacked on top of each other," explains Orlando Luis, CEO of Brights Hardware store. "The bottom container is 12 metres long and the top is 6 metres, and they are joined by a steel staircase. The lower-level sells building materials and

the upstairs container offers smaller electrical and hardware products."

The Hardware Co. container stores belong to Yanga Njozela, a young entrepreneur who approached Brights Hardware to assist him with setting up his hardware business. Luis says that he met Njozela in 2016 when he opened his construction company. "He asked if I would mentor and support him in this venture and after a few years of building a business relationship and learning the operations and systems, Yanga requested Brights' assistance to open his own container hardware.



"Yanga purchased the two shipping containers and rented a piece of ground. We assisted him to fully convert and rig out the containers with shelving, computer systems, electrical connections etc. We also provide him all his products at wholesale prices," explains Luis.

Brights has also assisted Yanga with infrastructure and construction support, IT and computer support, as well as financial terms support as part of their role as entrepreneurial support and mentorship. According to Orlando, Njozela manages all the rest of his business logistics, income and expenditure, profits and cash flow, staffing etc. and is a completely independent business entity.

**For more information, call 084-703-0745 or visit [www.thehardwareco.co.za/](http://www.thehardwareco.co.za/) [www.brights.co.za](http://www.brights.co.za)**



## Pratley Putty has been a mainstay product for over 50 years

When compiling a list of South African inventions that have made an impact on a global scale, Pratley Putty will always feature among the top performers. Pratley Putty hasn't just made its way around the world, this strong adhesive putty has even travelled to the moon. The latest accolade for the ubiquitous Pratley Putty is being featured in the book *'Uitvinders, Planmakers En Ander Slimkoppe Van Suid-Afrika'* by local author Engela Duvenage.

"Pratley Putty is a product that continues to perform very well. It has been proven in a lot of different applications. Although it was launched many years ago, it is a unique and trusted product, and one that continues to go from strength to strength," comments Pratley Chief Executive Officer Andrew Pratley.

During the 1960s, Pratley founder George Montague (Monty) Pratley and his laboratory invented the world's first epoxy putty. Initially, it was intended to be used internally for insulating and affixing terminals to cast iron electrical junction boxes. However, the product was subsequently introduced into the local market as Pratley Plastic Putty, a name that ultimately became Pratley Putty.

An agreement to manufacture the product under licence to a company in the United States was concluded, which introduced the product to the American Space Agency even before it could enter production in the USA. When the space agency decided to use the product aboard its Ranger space craft, the product was

supplied from South Africa via the American distributor. Hence it became the only South African Product to go to the moon.

Pratley Putty was also featured at a 'Destination Moon' exhibition at the Sci-Bono Discovery Centre in the historic Electric Workshop in the cultural precinct of Newtown, Johannesburg in celebration of the 50th anniversary of the Apollo 11 moon landing on 20 July 2019. In honour of this occasion, the South African Mint also featured Pratley Putty in its 'South African inventions' series of silver commemorative collectible coins that recognise some notable South African inventions.

Pratley produces over 800 products across its adhesives, electrical and minerals divisions, in addition to over 350 patents filed to date. Pratley actively exports to international markets as diverse as the UK, the US, Australia, New Zealand, Europe, Middle East and the Far East. A growing export market for Pratley Putty in particular is Africa, due to the popularity of Pratley's products for quick DIY automotive repair work.

Pratley has also redesigned its main website, as well as the separate websites for its adhesives, electrical and minerals divisions. "We have made some major improvements in terms of adding additional content, sophisticated search functionality and improving ease of use," concludes Andrew.

**For more information, email [sales@pratley.co.za](mailto:sales@pratley.co.za)**





Automatic gates and garages are incredibly convenient because they allow for quick access and mean that drivers don't have to get out of their cars in order to access the driveway and garage. However, like most technology, electric gates and garages are not immune to problems.

# HAVING TROUBLE OPENING UP?



There are several different ways in which electric gates and garages can cause headaches for homeowners. These problems should be dealt with immediately, otherwise, the gate or garage could become damaged beyond repair and have to be replaced, and in the interim, leaving your home unsecured.

## Six problems with electric gates and how to fix them

Here are the six most common problems with electric gates and how they can be fixed without much of a fuss. Read on to find out more.

### 1. Large amounts of noise

Sometimes an electric gate can generate a large amount of noise for reasons that don't always seem immediately clear. A grinding sound could mean the mechanism which moves the gate may have become worn out. This problem can be fixed one of two ways: either have the mechanism taken apart and reassembled or have a new part fitted.

### 2. Vermin and insects

Electric gates work by using sensors that trigger motion. However, if the sensors are blocked, the electric gate will fail to open. Insects and vermin can climb into the dark spaces provided by a gate and cause an obstruction. Make sure that the inside of the electric gate motor is kept clear of dirt and small animals so that the sensor will work perfectly at all times. Moss and mould can cause a similar obstruction, so they must be cleared away as soon as possible.

### 3. Power outage

Electric gates need to have a constant supply of electricity in order to work correctly. Power failures and loadshedding will

prevent the gates from working. If a power outage occurs, make sure to check for blown fuses. Make sure the power is switched off before you replace a fuse. You may get the surprise of your life!

### 4. Faulty remote control

The remote control needs to be kept in good working order to ensure that it will be able to open the electric gate without any problems. However, the batteries can start to fade so check if the red light is failing to 'blink'. Replace the batteries and try again if this is the case. Replace the remote if the problem persists.

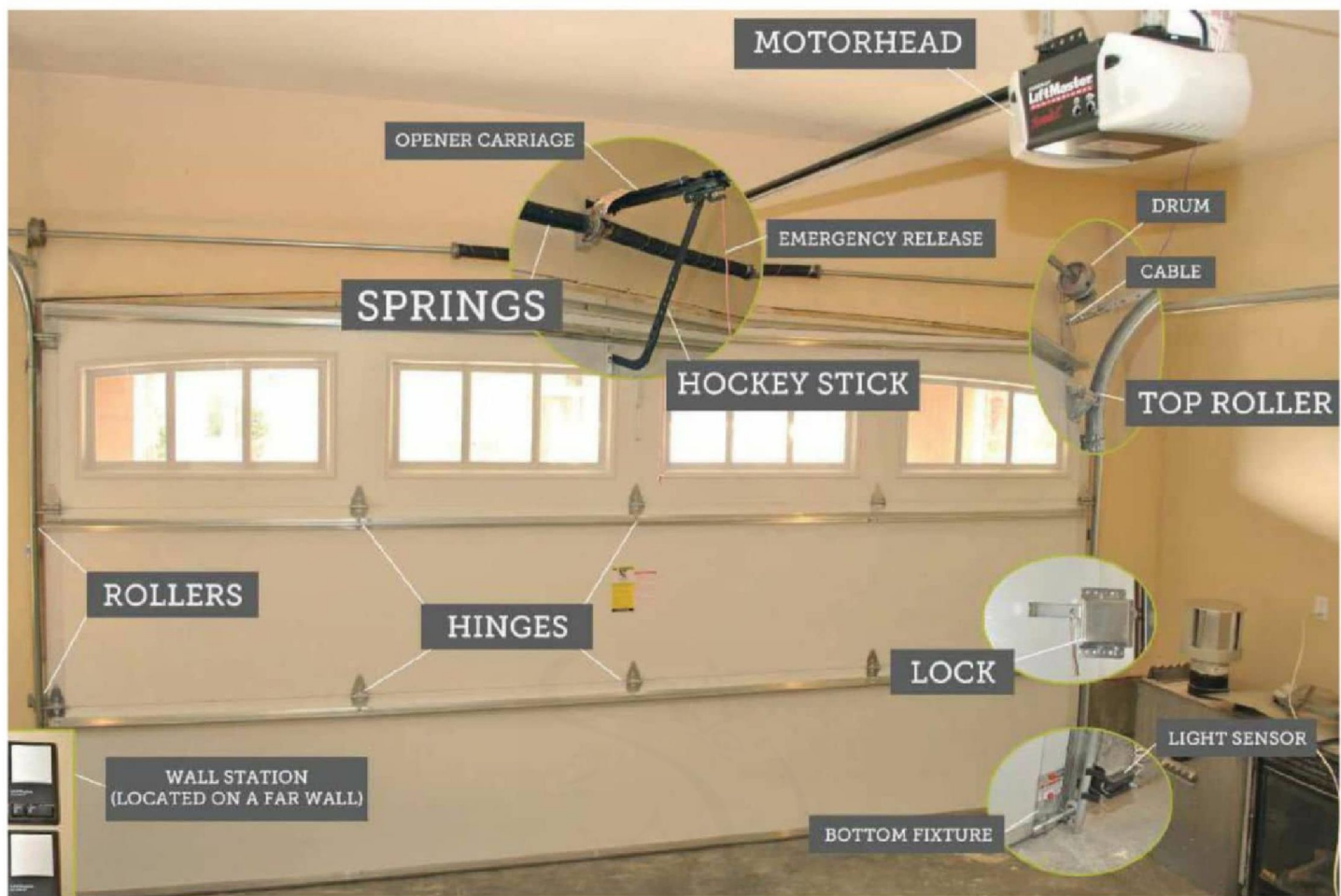
### 5. Obstructions in the gate tracks

The gate tracks need to be kept clear in order to help the gate open and close smoothly. There are brushes available that can be fitted to the gate to sweep the track as the gate moves. Because this is a DIY magazine our readers can build/create their own and send us their pictures.

### 6. Manual mode

Sometimes a gate can become stuck in the manual mode. This could be a problem with the gate's opening mechanism or the batteries in the remote.





Parts of an electric garage door

## The top 8 reasons your garage door won't work

### 1. The transmitter batteries are dead

This may sound obvious, but your garage door transmitters need power to work. If the batteries in your remote are dead, the transmitter won't be able to send a signal to your garage door to open.

First, check to see if the transmitter on the wall inside your garage still opens your garage door when pressed. If it does, then the transmitter in your remote likely just needs a simple battery replacement. If you have more than one remote for your garage door, then your other transmitters will likely need new batteries soon as well, since they were probably installed around the same time.

Changing the battery on your garage door transmitter is pretty simple. On most, you can simply slide the door open on the back of the transmitter and remove the battery. Others may be screwed in to keep the battery more secure, so this type of transmitter will require a screwdriver to open.

### 2. The track is not aligned properly

If your garage door track is out of alignment, it can be a serious issue. The metal track your door runs on needs to

be aligned properly in order for your door to move. If you see gaps between the rollers and rail, or bends in the rails themselves, you have a problem. The heavy weight of the door can compound these issues and make them worse until it becomes dangerous to operate your door.

If the track is misaligned, but the door still moves, there are a few things you can do to attempt to remedy the issue on your own. You'll know that it's misaligned if you hear a rubbing noise when the garage door reaches a certain spot on the tracks each time it opens and closes. Sometimes the door may even slow down slightly when it hits this spot.

To realign the track, first loosen the screws that hold the track to the frame. Then, gently tap the track with a rubber mallet to move it back into the proper position. Use a level to ensure it's perfectly straight. Once you have the alignment correct, tighten the screws securely to ensure the track won't move and cause more issues when opening your garage door. You'll need to repeat this same process on the other tracks as well, as these may also be out of alignment.

If the door won't move at all because of an alignment issue, then this problem isn't one that you should try to tackle yourself. A garage door professional will have the necessary



equipment needed to safely realign and repair your garage door. Additionally, if the track misalignment is beyond repair, a professional can install a new garage door track for you.

### 3. Something is blocking the door's path

Newer garage doors are designed with a reversing mechanism that prevents them from crushing objects in their path. If you find that your garage door closes part way and then goes back up, this can be triggered by objects on the ground blocking their path such as garbage cans or toys. It could also be caused by a build-up of debris on the tracks that prevents the rollers from moving forward. This could include small items like rocks, gum or mud build-up. If the door hits even a small object on the track, it will go back up to avoid crushing whatever is underneath it.

Inspect the area around your garage door to see if something is blocking the photo eye sensors. Then look at the tracks to see if there is any build-up on the inside. You'll need to get a step ladder to look at the tracks on the top part of your garage, as it will be difficult to see from ground level. It may also not be a bad idea to proactively wipe down your garage door tracks periodically to prevent this type of build-up from occurring. Running a damp rag along each track should be enough to remove anything that's lingering on the tracks.

### 4. Your springs are broken

If your garage door all of a sudden won't go up and you're sure the transmitters are working properly and power is getting to the motor, then you may have broken torsion springs.

If you happen to be home when these break, you'll hear a loud bang from inside your garage. This bang can be so loud that some people might think a firecracker went off inside their garage. That's because garage doors can be very heavy and despite what most people think, it's not the garage door opener that does the heavy lifting, but rather the heavy-duty springs of the door.

Doors come with one or two torsion springs. If either spring is broken, the garage door opener may struggle to lift the weight of the door or fail to open the door at all. If a spring is broken, call a professional for service as these can be very dangerous to work with. Don't try to open the door until a professional comes to inspect it and replace the springs. Springs can only be used for a certain number of open and close cycles, and over time they will eventually break and need replacing.

### 5. The garage door limit settings isn't set properly

Sometimes, you'll notice that your garage door closes all the way and then immediately goes back up instead of staying in the closed position. This issue usually arises with brand new garage doors that were just installed or older models that may need to be reset. If this happens, the most likely culprit is the open and close limit settings of your garage door opener.

This limit range tells the garage door opener how far the door should move before it's fully closed. If your settings are too high, the door will hit the ground before the opener thinks it should and assume the door is hitting something in its path. It will then automatically reverse to prevent crushing whatever is beneath it.



*Make sure that the inside of the electric gate motor is kept clear of dirt and small animals so that the sensor will work perfectly at all times*



There are knobs or dials located somewhere on your garage door motor that you can use to adjust the limit settings. The exact location and resetting procedures will vary depending on the brand and model of garage door you have. Your owner's manual should have more specific information on how to adjust your limits. You may need to experiment with a few adjustments before finally getting the correct setting. If you find that adjusting the limit settings isn't working, it might be time to call a technician to come and help get your garage door to stay closed.

#### **6. The disconnect switch was enabled**

If you can hear your garage door motor running for what seems like the full amount of time it normally would take to open or close the door, but the door doesn't move, chances are the disconnect switch has been enabled. Every garage door opener comes with a disconnect switch in case you lose power. This allows you to open or close the door manually so your car isn't stuck in the garage until the power comes back on.

This switch is usually attached to a rope that can be pulled or a knob that can be turned to disconnect. Sometimes, this switch can accidentally come unhooked causing the door to be disconnected from the motor.

However, if you lose power and use the disconnect switch, you'll need to reattach it to use your garage door motor to open and close your door again. Open the door all the way and then reattach this hook. Then try opening or closing the door again with your transmitter, and you should be all set. It will be easiest to reattach this hook when your car is not in the garage, as you'll need to place a step ladder underneath the motor to reach it.

#### **7. The door was manually locked**

If your garage door doesn't open, but the opener motor runs for just a few seconds and then shuts off, the garage door itself may have manually been locked. If you've checked the door springs and the track for obstacles, and those things appear to be fine, check to see if the lock on the door is engaged.

Quite a few garage doors come with manual locks, especially older models, for added security for your house. These typically look like a knob or handle in the middle of your door with two bars running horizontally from each side. There may be a small button on the top or side of the handle that you can press to slide the bars across the doors, thus locking the garage door from the inside. It can be somewhat easy to accidentally hit that button, especially if you're getting large objects out of the trunk of your car near the door.

To manually unlock your garage door, simply turn the handle until you hear a clicking sound. This will move the horizontal bars away from the edges and secure the handle in the open position.

#### **8. The tension springs or cables are broken**

Garage doors have tension springs and cables that help to slowly and safely lower your door while closing. If these tension springs or cables break, you might find that your garage door closes really fast, often with a loud bang when it hits the ground. This is very dangerous as there is nothing preventing the garage door from crushing something that might be below it. It's best to call a garage door professional as soon as you can to have them come out and repair these cables or springs.

Once the springs break, quite a bit of tension is put on the door cables, and they will often break next. When these cables break, they will snap and forcibly fly out like a broken rubber band. Think about how much it hurts to be snapped by a broken rubber band, and then multiply it by a hundred to account for the size and weight of the garage door cables.

Refrain from parking your car in the garage until the garage door is repaired. Additionally, try not to open and close the door while it's in this condition. With that amount of possible force coming from the springs or cables, they could potentially damage your vehicle or other property in the garage as well as cause serious injury. It's especially important that you and your family stay away from these cables or springs until everything is repaired.



*If your garage door track is out of alignment, it can be a serious issue*



## Troubleshooting problems with remote control openers

### Why is the range over which my remote works reduced?

There are a number of things which could cause this and in order to figure out what the problem is, you can try the following checks:

#### 1. Faulty remote transmitter

Replace the battery in your remote transmitter first. If this doesn't fix the problem, use your spare remote. You may have to put a new battery in the spare also. If a fresh battery does not solve the problem and a different remote does work, your remote is faulty and needs to be replaced. If none of your gate remotes works with a new battery, try the next possibility.

#### 2. Interference

There could be interference caused by faulty electrical devices near to where you're trying to use your gate transmitters. It is a lengthy process trying to identify the faulty device but essential you do because uncontrollable gates can be dangerous.

Turn all your electrical appliances off and see if your gate remote works. If it works with everything off, then turn on each electrical device one at a time, testing your remote to see if it still works. It might take some time, but this can help you find the source of any interference.

Once you know which device is faulty, make sure to leave it turned off and get a qualified professional electrician or the manufacturer to fix it.

If there's no sign that electrical interference is affecting your gate remotes, try the next possibility.

#### 3. Faulty receiver

If your gate remote is working and there is no interference, then you need to check if you have a faulty receiver or antenna. Unfortunately, in both cases, it's time to call on a professional installer.

### How do I open my garage doors or gates by hand?

There are times that things go wrong and for whatever reason and you can't open your gates or garage door. Fortunately, most gates and many garage doors are fitted with a manual release mechanism which allows the gate or garage door to be opened and closed if the motors won't work.

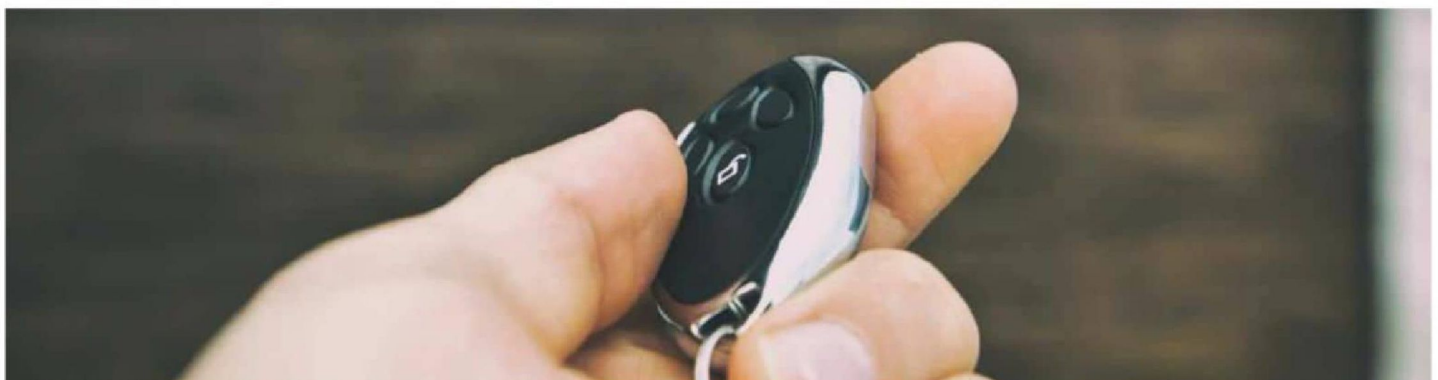
You need to make sure that you have a manual release fitted when your gate or door is installed because it is not always included as standard.

### Why won't my new remote transmitter open my gate or garage door?

Before your new gate or garage door remote control works you have to program it to communicate with the receiver in your garage door or gate automation system. Some remotes have a learn button on the receiver and others have dip-switches inside the transmitter and receiver that need to be in the same positions. Cloning gate remotes can be programmed from your existing transmitter. Refer to your manufacturer's instructions for help with programming.

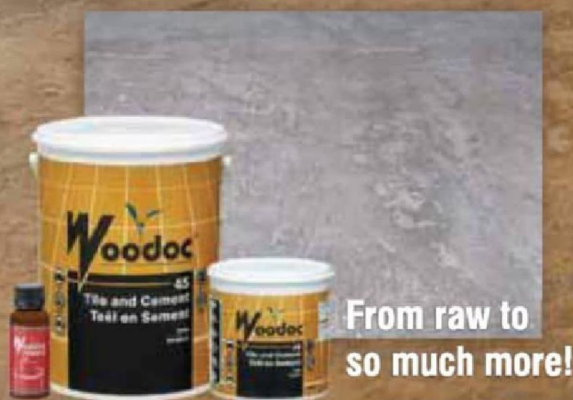


*In South Africa, electric gate motors are often stolen, thus extra precautions are often taken to secure them*





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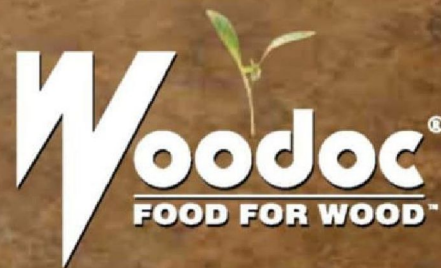
Easy to apply, Woodoc 45 is water-repellent and stain- and oil-resistant too.

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Installing laminate flooring on your own is pretty easy as long as you have the proper tools and technique. Check out some steps to follow for the most beautiful floors.

*The market is full of different styles and designs of laminate floor to suit every taste*

# TIPS FOR A SUCCESSFUL DIY LAMINATE FLOORING INSTALL



## What you will need

- Flooring installation kit (including spacers and a tapping block)
- Laminate cutter
- Carpenter's square
- Jamb saw
- Circular saw or table saw
- Utility knife
- Level
- Hammer
- Tape measure
- Clamps
- Pencil
- Underlayment
- Vapour barrier
- Nail gun
- Duct tape
- Silicone
- Finishing nails

When renovating their floors, more and more homeowners are starting to choose

laminate floors over other materials like tile or hardwood. Laminate flooring is durable and scratch-resistant, available in a variety of colours and designs. This beautiful material resembles real hardwood but can be purchased at an affordable price.

Many people choose it for its versatility and resiliency; it's a good option for most areas and rooms around your home. Laminate floors are also easy to install on your own, which can help save you a bit of money on hiring contractors. If you prefer to lay your flooring yourself, keep reading to discover our secrets for a successful DIY laminate flooring install. Learn the materials and equipment required, and see our step-by-step guide for installation.

## Gather your materials and equipment

Before you can start your laminate floor installation, you must first gather your materials and equipment. To ensure that your floors are secure and will last long-term, you must use the proper procedures, which starts with having the right tools. You can purchase or rent the equipment needed for this project from your local hardware store.

You must also, of course, select and order your flooring products. Many flooring manufacturers have design specialists who can walk you through selecting the best design and amount of materials for your space. Lastly, to remain safe while completing your project, make sure to wear safety equipment like goggles, gloves, and knee pads.



### How to measure and cut laminate flooring planks

To achieve the best results with your laminate flooring installation, you must precisely measure the area you're working on. Take down measurements of the width of the room or the wall that is perpendicular to how you'd like to align your planks.

Make sure to leave room for the flooring to expand – about 2cm is a good amount. Subtract this from your total measurement. To find out how many rows of planks you'll need, divide the width of the room by the width of a single board. This may not be an exact number, so you will most likely have to cut the planks to fit the last row, also leaving room for expansion on that side.

Cutting laminate flooring is pretty easy, as it's made of a thin, fibreboard core. There may be instructions on how to cut your materials included in your flooring kit. If not, it's common to use a table saw, circular saw, or a handsaw. A fine-tooth blade is more efficient at reducing splintering. You can also place duct tape on top of the cutting surface to protect the planks and prevent splintering. Cut with the finished side up.

### How to install laminate flooring

When you are ready to install new flooring, make sure you're familiar with the steps to lay them correctly the first time. While beginner and intermediate DIY'ers can complete this project successfully, laminate flooring installation requires accurate measurements and proper technique. Follow these steps to install new laminate floors in your home:



## Step-by-step guide

### Step 1: Acclimate your planks and prep the subfloor

Before you can install your new floor, your laminate planks will need to acclimate to the room first. Lay out the pieces of laminate in the room in which you'll be installing them, and let them sit for at least 48 hours. This allows them to acclimate to the temperature and moisture conditions in the room before installation.

Next, you'll need to prepare the subfloor. You'll know it's safe to install flooring when the subfloor is clean and smooth. You can often install laminate over old floor coverings like sheet vinyl as long as it's flat, smooth, and not too soft. Most of the time, however, you'll want to remove the existing flooring, as well as baseboards and trim around the room.

Sweep or vacuum away any debris, then check that the base floor is level. For concrete basement flooring, fix any chips in the flooring with a patching compound. For wood subfloors, make sure to remove loose nails and patch cracks, and sand uneven areas. If any planks are damaged, you may want to replace them before covering them.

1



*To achieve the best results with your laminate flooring installation, you must precisely measure the area you're working on*

2



*It's a good rule of thumb to start applying flooring against the longest wall (don't forget the spacers)*

3



*Lay the full row of flooring*

4



*To start the second and subsequent rows, place a plank that is either longer than or shorter than the first plank in the first row*



5



*Use a mallet and piece of scrap wood to gently know the planks into place*

6



*Continue with the second row*

7



*When installing the subsequent rows, you may have to wiggle the planks to fit them into the groove and snap into place*

8



*Continuously 'tap' into place to ensure a tight fit*

## Step 2: Trim door jams

When laying flooring around doors, it's often a bit easier to cut down some trim from the doorways than to cut your flooring materials to fit an irregular shape. When you trim some wood off of the bottom of your trim, it allows your flooring to fit underneath for a seamless result.

First, place a piece of laminate over your underlayment, then line it up against the door frame. Use a pencil to mark where the top of the laminate meets the frame. This tells you where to cut. Then, use a jamb saw to remove the small piece of wood. When you're installing, you should be able to smoothly slide your flooring in the small gap.

## Step 3: Install underlayment

Before placing your laminate planks, you must install the underlayment. This thin, dense foam is designed to help absorb sound and make your floors warmer. It can also act as a bridge over any gaps or dents in the subfloor layer underneath. Some laminate floors come with underlayment built-in; if so, you can skip this step.

If your flooring does not come with its own underlayment, start by rolling out two rows of underlayment. Trim the pieces with a utility knife to fit the width of the room. Use tape or underlayment adhesive to stick the adjacent pieces together.

When you're laying the sheets of underlayment next to each other, make sure they're not overlapping. You want to keep your underlayment from stacking on top of another layer, as this could create bumps on uneven sections in your floors.

## Step 4: Lay your first row of laminate

Now, you must decide which wall you'll begin the installation. It's a good rule of thumb to start applying flooring against the longest wall. However, if there is a big focal point in the room like a fireplace or large windows, you may want to start applying your flooring parallel to that wall.

Start your first row by placing the planks with the tongue side against the wall. You can also trim the tongues off the boards in the first row with a utility knife. However, because the baseboard will cover a bit of your first and last row, trimming off the tongue is not necessary.

Next, place the groove of the following piece into place, then press down to snap it secure. Use spacers along the wall to leave room for the flooring to expand and contract over time. Then, continue placing planks until you reach the last one in the row. You may have to cut the final piece to fit the space perfectly, making sure to leave an expansion gap.

## Step 5: Continue laying planks

To start the second and subsequent rows, place a plank that is either longer than or shorter than the first plank in the first row. (Use the portion that you just cut from the last piece in the first



row). Staggering the seams in each row helps create a more secure installation and attractive look. Try to stagger at least 20cm from the adjacent seam.

When installing the subsequent rows, you may have to wiggle the planks to fit them into the groove and snap into place. Many manufacturers suggest using a tapping block or a pull bar to secure the planks. These tools help to ensure that they are tightly secured with no gaps in between.

To install the last row, you may need to cut a bit of width off of your planks. When installing the last row, it helps to place your planks at an angle to fit them into the tight space.

### Step 6: Add finishing touches

When you're done installing your floors, remove the spacers from against the walls. Install door thresholds and baseboards around your room. Make sure to silicone the edges of the baseboard to achieve a smooth, finished look. Den Braven Hybriflex-540 is ideal to use in areas where an expansion joint may be required or to fill the gaps between the wall/skirting and floor. It is permanently elastic has anti-fungal properties and has good resistance to UV, water and weathering.

9



*When you're done installing your floors, remove the spacers from against the walls*

10



*Make sure to silicone the edges of the to achieve a smooth, finished look and to allow for movement*

### DIY installation vs. professional installation

There are many pros and cons to both do-it-yourself flooring installation and hiring the professionals. Your decision should be based on your budget and your comfort with standard power tools. Laminate flooring installation has an intermediate level of difficulty, but it can be easy for most homeowners to take on.

Installing laminate flooring on your own will take a few hours, and it requires the right type of equipment to ensure

a solid and secure installation. It's a dry installation, which means you do not have to use grout or mortar to install flooring.

However, if you have not completed a home renovation project before, or if you do not already have most of the necessary equipment, you may benefit from working with a professional contractor. They will have all the materials and tools needed to complete the job.



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## Top tips to keep your laminate floors looking fresh

Laminate floors are made up of several materials bonded together under high pressure. Most laminate flooring consists of a moisture resistant layer under a layer of HDF (high density fibreboard). This is topped with a high resolution photographic image of natural wood flooring. It is then finished with an extremely hard, clear coating made from special resin-coated cellulose to protect the laminate flooring.

### The advantages of laminate floors

The most obvious advantage of laminate floors is that it gives your home a beautiful flooring option similar to hard-wood floors, but at half the price. Laminate floors can be laid over existing tiled floors, concrete floors, stone or mosaic floors – namely any kind of levelled and water-proofed floors. Laminate floors are designed to be easy to install and do not need nails or glue. Hence, while you get a new floor for a low cost, your existing floor is also untouched and unharmed in every way.

### Taking care of laminate floors

Laminate floors are durable and long-lasting, but not taking the right care can result in serious damages. As it is, laminate floors are pretty resistant to scratches, spills, moisture and most other factors that damage hard wood floors. With a few pro tips, you will be able to keep your laminate floors looking new for long:

#### Broom first. Then mop

When cleaning laminate floors, it is important to be gentle. So, first take a broom with soft bristles and sweep away all the dust. You can even take a soft cloth and do this. If you have pets at home, you may find that pet hair sticks pretty easily to laminate floors and can be hard to clean with just a broom and mop. Take a minute to think. First, what was your pet doing in the part of the house with the laminate floors? (Pets can easily scratch and damage the resinous top layer of the laminate. Your pets may not have long talons or claws, but for all intents and purposes it is better to keep them away from the laminate floor). Second, a lightweight vacuum cleaner with a good suction capacity should easily clean up the hair. And a mop later, your floors will be shining again. Remember not to use excessive water though, to avoid water spots. Be gentle and you'll never be sorry.

### Don't let spills dry

Your laminate floors are fully prepared to handle stains – we build them tough, yes! So, if something spills, do not lunge for the nearest top-of-the-shelf chemical cleaner. Most of the times, a simple wipe with a soft damp cloth is enough to deal with food spills and you will not have any stains either. The important thing is not to let the spill dry because you may end up scratching the protective surface of the laminate panels while attempting to clean a dried spill. If the floor gets stained by oil or paint, use some acetone remover to gently wipe the spot and then immediately clean with a damp cloth. For stains that do not go away even with this method, call an expert. Quick action on the paint spills and such will ensure longevity.

### Steer clear of chemicals and abrasives

By now you must have figured that it is really important to protect the resin-coated top layer of laminate floors to ensure longevity. So, keep steel-wool scrubs, scrub pads, chemical-based cleaners, and cleaners with a soap or detergent base away from your floors. Do not attempt to wax or polish your laminate floors in order to make them shine, either. The only chemical that you should use on a laminate floor is laminate floor repair paste for repairing minor nicks and scratches.

### Use water, but in moderation

Water is a natural cleaner and while it has no chemicals that can harm your laminate floors, using too much of it can also have a bad effect. If not used the right way, water can easily seep in between the laminate panels and cause the underlying wood to warp and become lumpy – not something you'd want to happen. To avoid this, make sure you damp cloths for a quick wipe and clean up any liquids that may spill on the floor quickly. Clean up the spills with a sponge or tissue paper. Chemicals: goodbye!

### Once a year, go for a deep-clean

Despite your daily cleaning routine, there will be some amount of hazing and film build up. It's unavoidable. Hence, we advise a once-a-year deep cleaning from the best in town. Trust us, the pros know how to get the gunk out of invisible places – like where the skirting profile is attached to the wall. This way, you can ensure that your laminate floors will last for their entire lifetime which is a good ten years or so.







## DHP453RYE

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**A Smart Way to Start**



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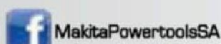
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Learn how to use your woodworking and metalworking skills to make a unique side table.

# Metal and wood side table

>> Theo Du Preez

A few years back my friend purchased a coffee table that looked like a cage. I loved the design so I came up with this bad boy right here; made from reclaimed beam cut-offs and some steel. This is a pretty straightforward project – you will need a welder if you want to create something like this. Go grab one if you don't have one already as it's an awesome way to add to your home!

First prepare the wood. You can make the top out of any wood that you'd like. Obviously, the old beams look pretty awesome, but they are not always easy to find.

My top is made of two 75mm x 190mm x 430mm pieces of old oak. Square up either end and then sand to remove any rough edges and smoothen.

Now we need to weld up the metal bracket for underneath the wood top. The cage will be welded to this bracket and double as the connection point for the two pieces of wood.

Measure out your wood dimensions and then cut 75mm flat bar to the dimensions of your wood. My bracket is made up of two pieces cut at 280mm and two pieces at 380mm.

Cut the pieces and place on the wood to make sure it aligns. When the bracket matches the wood surface dimensions, weld it together. My bracket measured 380mm x 430mm. Next cut off the corners of the bracket.

To mount the bracket, mark out drill holes along every piece of the bracket to secure the wood. Drill holes for your screws and screw the bracket to the wood. If you want, you can sand the finish off of the screws to camouflage them to raw steel.

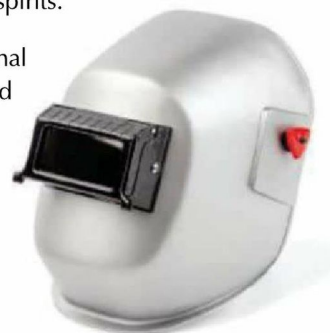
Now we move onto the 'cage'. Cut your steel rod into enough pieces to make your cage

- Two pieces at 380mm
- Two pieces at 430mm
- 20 pieces at 500mm

After your pieces are cut it's time to weld up the cage. Weld up the 380mm pieces to your 430mm pieces to make a rectangle (the same dimensions as the bracket). While making sure everything is square, weld up your rectangle to your bracket using the 500mm pieces. Weld up one piece of 500mm on every side to keep it level and square.

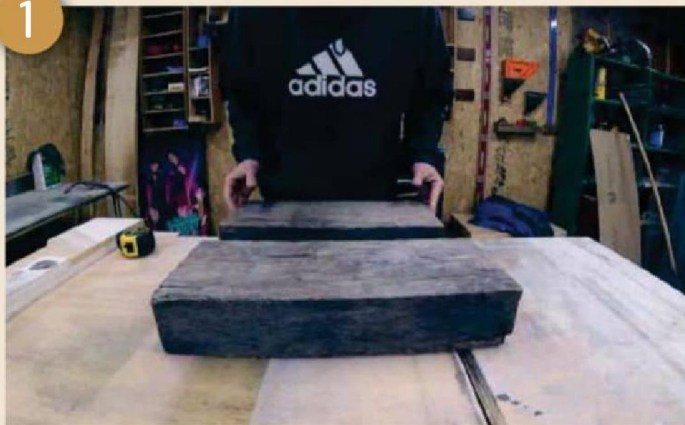
Next, weld five pieces of the 500mm lengths of steel rod to each side of the table to create your cage look. Use magnetic squares to make sure it's square while helping you keep everything together. Sand off any sharp edges of the steel and clean off the steel with a steel brush and mineral spirits.

Finally, perform a final sanding on the wood and apply a finish of your choice. Set this up beside a couch, your bed, or put it in a sweet spot to show it off. Enjoy it!





1



The pieces of wood used for this project

2



Square up either end of your wood pieces

3



Sand to remove any rough edges

4



Measure out your wood dimensions

5



Cut your flat bar to size

6



Check that the bracket is the correct size

7



Weld the bracket together

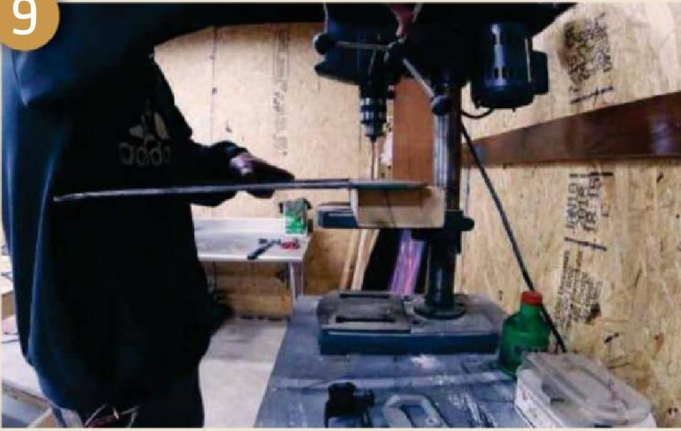
8



Trim off the corners of the bracket



9



Drill holes in the bracket to attach to the wood

10



Mount the bracket

11



Clean up the screw heads

12



Cut your steel rod to size

13



After your pieces are cut it's time to weld the cage

14



Weld five pieces of the 500mm lengths of steel rod to each side of the table

15



Use magnetic squares to make sure it's square while helping you keep everything together

16



Weld one piece of 500mm on every side to keep it level and square



17



Clean off the steel with a steel brush and mineral spirits

18



Apply the finish of your choice



HOWARD



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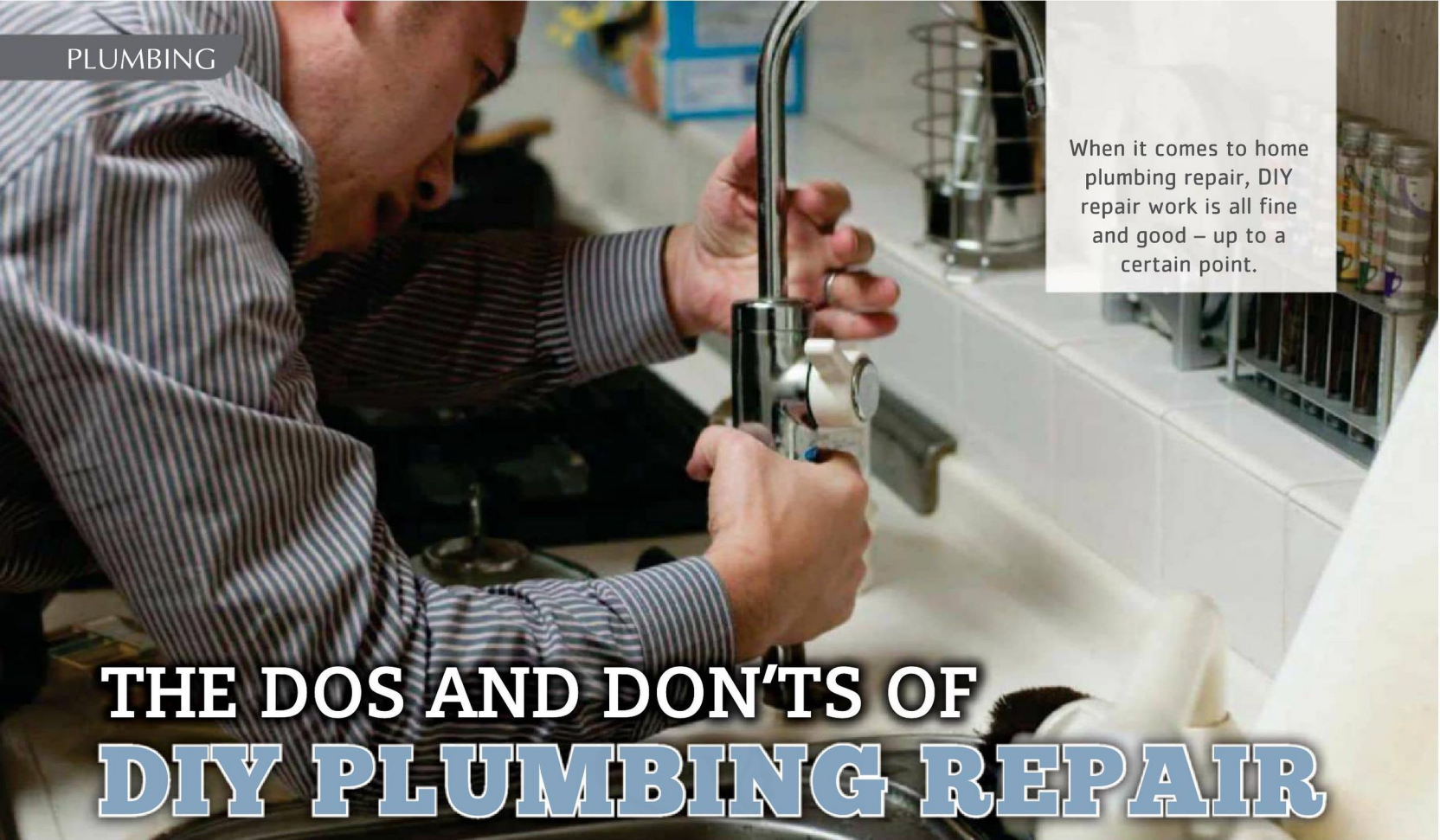
- Polishes all wood surfaces to a soft luster with a protective coating of Carnauba Wax and Beeswax
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When it comes to home plumbing repair, DIY repair work is all fine and good – up to a certain point.

# THE DOS AND DON'TS OF DIY PLUMBING REPAIR

*Unlike most electrical work, some plumbing can be done by simply following a DIY plumbing guide*

Unlike most electrical work, some plumbing can be done by simply following a DIY plumbing guide. This can lead to savings when you are able to fix your plumbing issues yourself. Many homeowners are simply unaware of the many plumbing problems that can be fixed without professional help. It is surprising to know that some of these problems only take a few tools and some elbow grease to fix up. Simple step by step instructions and patience are all that is needed in order to be a DIY plumbing expert.

In cases where the tasks are not fit for DIY, it is still best to leave the work to trusted professionals. We don't want any added costs if we mess up our plumbing system instead of fixing the problem.

For those who would want to try out DIY plumbing, here are a few plumbing guide to do's:

- Make sure that you have a reliable plumbing DIY guide that you can follow. There are a lot that you can download and read about on the internet. Get these from only reputable sources.
- Use only the best tools and materials for the job. Using cheap piping or other fittings can give you more headaches and cost you more in the future.
- Before you proceed with your DIY you need to switch off your main water supply first.
- Smaller jobs like replacing sinks, washers and fittings can be done with the right tools and DIY plumbing guide.
- Make a plan before you do the job, study the guide and make sure you have all the right tools and materials prepared. Fittings and fixtures should be the right size and type. Get advice from your local hardware expert so that you can get the right tools and materials for your project.

We now learn about the things that you should never do when performing a DIY plumbing project.

- Don't ever change or interfere with your home's sewerage system. You will be going against the building code if you do this which is illegal. It can also be a potential threat to the health and safety of your home members.
- Don't change your drainage system in your home without consulting with your council and a professional plumber. This may cause problems with the local water management system so this should not be done without the proper consultation
- Never put ill-fitting joints, fittings, and pipes together. This may be a temporary fix for you but will surely cause bigger problems in the future.
- Never try to install a new geyser. This job is best left to the professional installers. Making a mistake is a potential danger for your family and it may result in a poorly working system
- Don't try to do bigger projects that you know are over your head. If you are not confident enough in doing a great job then you should leave the job to the professionals.





*Are your taps slowly dripping when the water isn't on?*

### Plumbing problems you can probably fix yourself

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Running toilet</b>         | Your toilet can waste up to 700 litres of water a day if it's running nonstop. The most common culprit is a faulty flapper valve which controls the amount of water that passes from the tank to the bowl. Remove your current flapper valve and take it with you to the hardware store to find an exact replacement. The process is as simple as turning off the water, draining water from the toilet tank, removing the faulty flapper valve, and then placing the new one in. Be sure to turn the water back on once the new flapper is installed and test it with a few flushes to make sure it's operating as it should. |
| <b>Clear backed up drains</b> | Don't let blocked drains ruin your day. Clear them by pouring a pot of boiling water in the sink, then add a 1/2 cup of baking soda. Let it sit for a few minutes, then pour down one cup of vinegar followed by one cup of very hot water. Cover with a drain plug (to keep the bubbling reaction in the drain) and let it sit for five to 10 minutes. Flush once more with boiling water and you should be all set. If this doesn't work, try purchasing a drain snake from your local hardware store or calling for a professional drain cleaning.                                                                          |
| <b>Clogged toilet</b>         | First try unplugging your toilet with a plunger, using steady up and down motions to get the blockage to loosen. Be aware that stubborn clogs may require a few minutes of vigorous plunging. If a plunger doesn't do the trick, you may need to pick up a snake or auger at your local hardware store to move the clog through the piping.                                                                                                                                                                                                                                                                                    |

### Call professional plumbers for these common problems

|                            |                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Leaks of any size</b>   | If you notice a leak – big or small – have a professional out to take a look. Leaks can seem small on the surface but cause big issues and serious damage before you know it. It's best to get an expert's opinion so you don't risk additional expensive repair work.                                                                                                                   |
| <b>Broken geysers</b>      | While some homeowners want to attempt a DIY replacement, there are too many connections and parts involved to be considered a good idea. Call a professional for an accurate replacement recommendation and perfect installation to ensure your family doesn't go without hot water for any longer.                                                                                      |
| <b>Major installations</b> | For any major appliance or fixture installation, call a pro. A licensed plumber knows how to safely disconnect and reconnect pipes and troubleshoot any problems that might arise during the process. Even the slightest misstep can cause water damage or a burst pipe, leading to thousands of dollars of damage. We offer free estimates so it's easy to work with someone you trust. |

## 4 DIY plumbing do's

DIY plumbing can save you time and money. Here are a few things you should do regularly to prevent the need for a professional plumber.

### Inspect your drains and taps

Is your bathroom tap slowly dripping when the water isn't on? Do you need to replace it? Simple DIY tasks, like replacing a washer in your tap or installing new hardware, are easy ways to keep your plumbing system updated.

### Insulate your pipes during cold weather

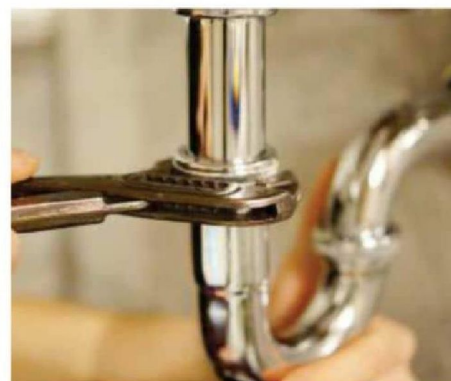
Before temperatures start to drop in the autumn season, evaluate all of your system's pipes to determine which are exposed to external elements. Insulate your pipes before winter to prevent freezing and maintain optimal performance.

### Keep debris out of drains

A best practice in the kitchen is to keep food waste, grease, and other items out of the drain. Although mistakes are made, putting food waste down the drain often can lead to the build-up of decaying food, which attracts bugs and can clog your drain.

### Remove a shallow blockage

Did your child drop a small toy in the bathtub's drain? Did you miss a piece of chopped produce that fell into your sink? If you can see a blockage and can remove it safely, you don't need to call a plumber.







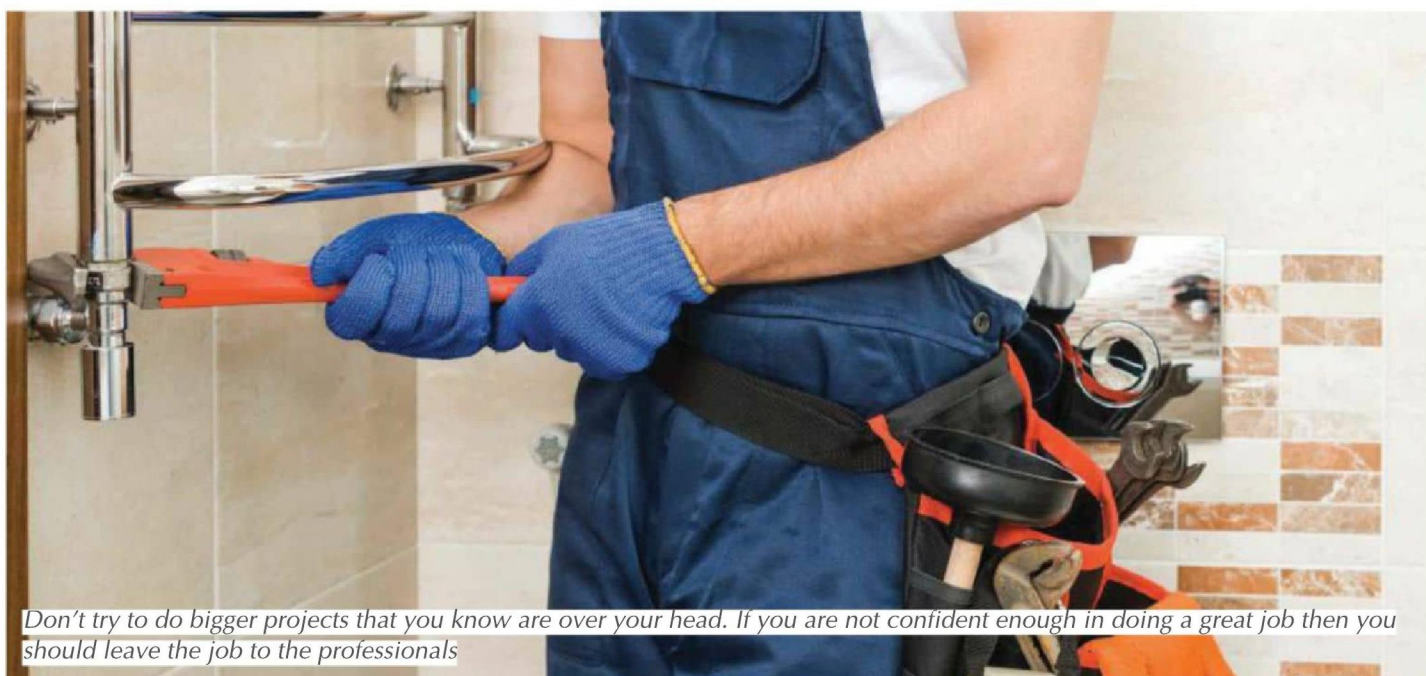
PTFE tape to seal for leaks



Smaller jobs like replacing sinks, washers and fittings can be done with the right tools and DIY plumbing guide

### Top DIY plumbing tips

1. Silicone is a better option than using grout for sealing purposes. It is more flexible and not brittle and hard like grout. Den Braven Silicone Sanitary is a quality broad spectrum fungal resistant elastic sealant which is resistant to detergents and household chemical and can be used for sealing joints and cracks in bathrooms and kitchens.
2. Using a sealant gun to apply sealant with the tip of the nozzle cut at a 45-degree angle makes things easier
3. Know the difference between the types of valves and cocks.
4. Always turn off the water at the isolation valve before attempting to fix plumbing problems
5. When you have a drip from the spout, you need to change the washer which is a soft rubber found in the valve seat. A collar drip needs an "O" ring change which is found around the top spindle.



Don't try to do bigger projects that you know are over your head. If you are not confident enough in doing a great job then you should leave the job to the professionals





Modern cars require expensive equipment and electronic diagnostics system to repair problems. While you can't do every type of maintenance alone, there are various fixes that you can do yourself with simple tools and little experience.

# 25 car repairs you can do yourself to save money

*Always remember that you need to follow safety procedures at all times while doing DIY car repairs*

**S**ave money and time by doing basic troubleshooting and repairs on many car issues. Gain experience to fix complex issues by doing simple DIY repairs first. Keep your car in top condition by following these 25 DIY car repairs.

## 1. Air filter replacement:

Clogged air filters lower car performances on many levels. Change your car's air filter to increase power and gas mileage.

## 2. Oil change:

An oil change is relatively easy to do yourself with certain precautions. Avoid changing the oil after driving your car recently since it can be very hot. You should wait at least a couple of hours after driving your car to change the oil. Tools for a DIY oil change are a ratchet, oil filter, wrench, funnel, new oil, oil container, and oil filter. The problem is what to do with the old (drained) oil. Do not pour it down the drain! You will need a second container to collect the oil and take it to a fuel station, or service station.

## 3. Spark plugs:

This simple DIY procedure can make automobiles have better

fuel consumption ratings and drive smoother. Spark plugs for most cars are cheap. Check the plug wires while replacing spark plugs too.

## 4. Windshield wipers:

Replace the worn out strips of rubber found on old wipers with new ones. Change windshield wipers for optimal driving conditions during rain. Basic tools are needed like a screwdriver and new wipers to change them.

## 5. Headlight bulbs:

Check the front of your car for burnt headlight bulbs in need of replacement. DIY headlight bulb change is possible for cars without sealed beam headlights. Be sure to get the right bulb for your car and save money by changing it yourself.

## 6. Dangling exhaust pipes:

If you hear extra car noises from the back of your car, it could be damaged pipe holders or structure. Most cars use rubber loops to hold exhaust pipes that can be damaged over time. Look under your vehicle for any broken hangers in the exhaust pipe and change accordingly.



### 7. Brake pads:

Always keep brake pads in optimal conditions to avoid car accidents and injury. Brake pads are a key component of the brake system that should be properly maintained. Make sure you have the correct brake pads on hand before you start with the job. Once everything is taken apart you don't want to be stuck with the wrong parts. Take pictures as you take the brakes apart because it can be tricky to put it back together especially if you haven't done it before.

### 8. Fuel filters:

Fuel filters have an average price of R200 depending on the car but can save hundreds of rands from engine damage if changed regularly. Fuel filters are important to keep fuel injection and carburettor systems clean and working properly. Please, do note that it is imperative to release the fuel system pressure before replacing the fuel filter to avoid damage or injury.

### 9. Car radiator flush:

Automobiles' cooling systems and radiators should be cleaned to keep engines cool. Radiators can build deposits that can clog the cooling system. Perform regular radiator flushes to keep the cooling system in optimal condition. Before removing the radiator cap, to flush the radiator, check that the engine is cool.

### 10. ABS sensors:

ABS sensors can cause the ABS light to show on cars' dashboards if dirty. Clean ABS sensors while replacing brake pads to save on time, if possible.

### 11. Plug tires:

Car experts differ on whether it's better to patch or plug a tire. However, only use these options for short-term solutions for tire damage if not done by a professional. Tire plugs can be bought for as little as R75 to repair most tires according to the damage.

### 12. Fuel gauge sender:

If you are running low on fuel constantly, the fuel tank gauge

might need replacing. Many cars have these units located under seats based on the manufacturer. Review the owner's manual to verify the location of the fuel sender unit, and if accessible, change accordingly.

### 13. Brake discs:

Combine changing warped brake discs with brake pad replacement to save time if needed. Warped brake discs can damage entire car axles if not corrected in time.

### 14. Removing stripped screws:

If you have damaged a screw's head, steps must be taken to remove it correctly. Drills are suggested to remove stripped screws with diameters to drill a hole in the screw's head centre. Once the screw's head separates from the body, it should be easy to remove.

### 15. Blown fuses:

If your headlights are out, it could be from a blown fuse. Check the car's fuse box to determine which fuse needs replacing. There are three main types of car fuses, which are glass tube, blade, or ceramic. Review your car owner's manual to find the location of fuse boxes and the type of fuse required.

### 16. Indicator relays:

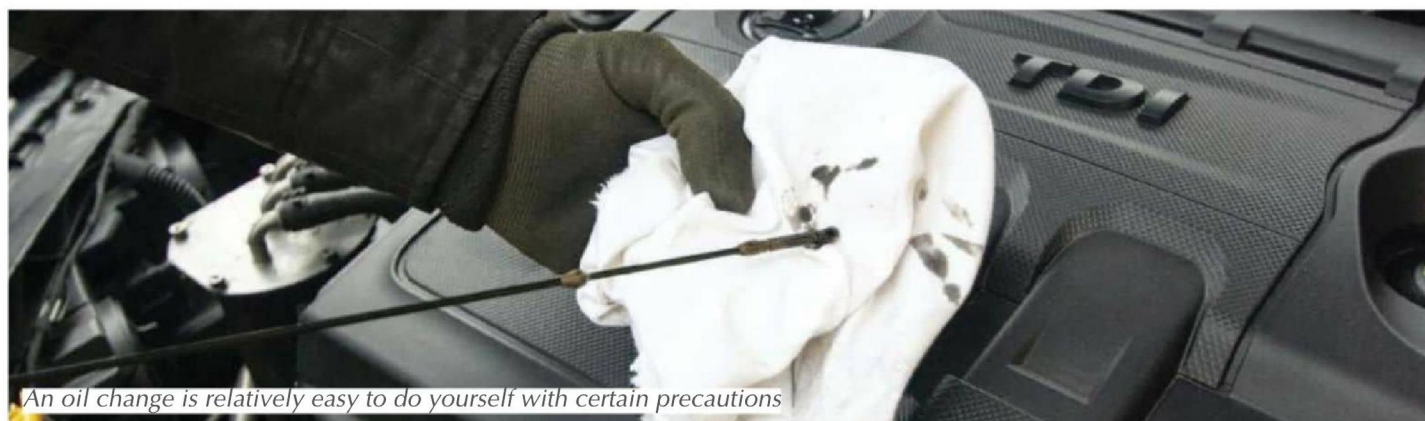
Indicators are easy to troubleshoot if signal relays are at fault. Bad turn signal relays can make turn signals stop blinking. Check the signal relay setup of your car for turn signal issues.

### 17. Car batteries:

Batteries are the centre of a car's electrical mechanism. Use approved gloves and eye protection to avoid acid damage from the battery. Check the old battery with a voltmeter to see if it has the proper charge. Batteries with lower than 9.7 volts while starting an engine, should be replaced for most vehicles.

### 18. Seat belts and seatbelt retractors:

Seat belts, by law, must be used to protect against injury in a car accident. Seat belts and belt retractors can be replaced with proper screwdrivers by simply removing the covers and placing new ones. You should test the new seat belt for optimal working conditions.





### 19. Window belt strips:

Inspect visually window belt strips for missing parts, cracking, or other damages for replacement. Worn out window belt strips can cause water damage, if not kept in top shape.

### 20. Tire valve stems:

Tires and wheel assemblies must be removed to change tire valve stems. Deflate tires by removing the inside valve stem. Install the new tire valve and inflate the tire accordingly.

### 21. Fan belts:

Check under your car's hood or the engine compartment for the fan belt routing layout. The belt tensioner must be located and loosened up to remove the fan belt. Make sure to install the new fan belt in the same manner that the old one was routed. After installing the new belt, check the belt's tension and adjust if necessary.

### 22. Tire replacement:

A tire change is one of the most common DIY procedures performed by drivers. Damage wheels should be replaced with the spare tire by using the jack and tire changing tools available from most car manufacturers. A professional should balance new tires later.

### 23. Thermostats:

Radiator thermostats provide car engines' working temperature that should be within recommended levels. The radiator must be checked for leaks and locate the thermostat. Coolant should be drained to release pressure and to replace the thermostat housing structure faster.

### 24. Radiator hoses:

Radiator hoses are key to maintain coolant system pressures and engines' temperatures. Worn out radiator hoses can have leaks that drain coolant levels and heat car engines. Check for the upper and lower radiator hoses for damage and replace them as necessary. Radiator hoses are usually just held by clamps and screws depending on the type of car.

### 25. Washer tanks:

Washer tanks are necessary to clean dirty windshields while on the road. Open your car's hood and locate the washer tank. Remove the washer pump's wiring to the washer tank before removing it. Washer tanks are usually just held by a couple of bolts based on the manufacturer. After replacement, fill the

washer tank with washer fluid and test for proper function.

Regular car maintenance and repairs are top priorities to keep cars away from mechanic shops.

This DIY car repair list will assist you to maintain your vehicle in optimal road conditions without spending a lot of money. Get professional assistance if you find unable to fix some parts. Always remember that you need to follow safety procedures at all times while doing DIY car repairs.

An advertisement for Victron Energy products. The top half features a black and white image of a car's front end with the Victron Energy logo. To the right, a vertical strip displays four products: Orion TR Smart DC-DC charger, SmartSolar MPPT 100/15, IP 65 Charger, and Phoenix inverter 12V 500VA VE.Direct. Below this, the text 'THE ULTIMATE OFF-ROAD SOLUTION' is prominently displayed. The bottom half contains detailed descriptions of each product, highlighting their features and compatibility with the VictronConnect App. The Victron Energy logo and 'Bluetooth SMART' are also visible. Social media icons for YouTube, Instagram, Facebook, and Twitter are at the bottom, along with the website www.victronenergy.com.

**Orion TR Smart DC-DC charger**  
Orion TR Smart  
12/15 - 30  
Maximum Power  
12 15 30 A

**SmartSolar MPPT 100/15**  
SmartSolar  
MPPT 100/15  
12 15 30 A

**IP 65 Charger**  
IP 65 Charger  
12 15 30 A

**Phoenix inverter 12V 500VA VE.Direct**  
Phoenix inverter  
12V 500VA VE.Direct

**Bluetooth SMART**

**THE ULTIMATE OFF-ROAD SOLUTION**

**Orion TR Smart DC to DC charger** this ingenious device, allows for charging of one battery type to another in a safe and simple manner. Battery types can also be programed using the VictronConnect App through the integrating Bluetooth in the Orion TR Smart DC to DC charger.

The **Blue Smart IP65 Charger** can be used on devices in your workshop and on motor vehicles, such as (classic) cars; motorbikes; boats and camper vans.

**SmartSolar MPPT 100/15** - Maximum power point tracking efficiency up to 99% also integrated with the Bluetooth functionality with the VictronConnect Bluetooth App.

**SmartSolar** maximises this energy-harvest, driving it intelligently to achieve full charge in the shortest possible time.

**Phoenix inverter** allow you to power domestic equipment - requiring 230V - using 'leisure' or 'automotive' batteries rated at 12V, 24V or 48V DC.

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Last year I was treated to a nice shiny new Weber braai for my birthday – eventually I plan to build a braai ‘kitchen’ but in the short term I needed a table to use alongside it while cooking.

# MAKE A SIDE TABLE FOR YOUR BRAAI

>> Dave Parker



## Materials

- Small pile of pallet wood
- Half a small tin of varnish plus some spray can varnish
- Left over hinges
- Assorted screws (mainly 30mm)



## Tools

- Mitre/chop saw
- Jigsaw
- Sander
- Trimmer router
- Butane Torch
- Drill/screwdriver
- Kreg pocket hold jig
- Tape measure
- Pencil and sharpie
- A couple of cans of your favourite drink to celebrate!

As I intend to build something a little more permanent later on I didn't want to spend much (or any) money on this project if I could help it. Ideally I want to use anything I already have left over from other projects so I had a dig around in my garage and found the supplies I needed.

## Step-by-step guide

**Step 1:** I had stripped down a few pallets a while ago for a couple of other projects and still had some bits leftover. Picking through the pile I looked for the straightest bits I could find and got enough to make a table top which was 52cm deep (the Weber kettle I have is 57cm diameter), and also a few of the larger bearers to use for some fold down legs. I decided to make it as long as the pallet wood pieces would allow me (I don't need loads of space but the more the merrier).

I know that pallet wood isn't the best choice for a food-safe table top but I don't intend to use the table to prep food directly on, it

will be a table to hold important things, like my drink!

**Step 2:** I have always wanted to try burning/sanding wood and I quite like the finish so I thought I would give it a go on this project. Using a butane torch I lightly burnt the surface of all the pallet wood I intended to use, once it had cooled down I gave it a rough sand with some 240grit paper in my sander.

**Step 3:** Using screws I fixed together the table top with a couple of cross braces on the underside. Next I used my Weber lid as a template for the curved section of the



table top – once marked I cut the excess off before sanding all the edges off.

I knew I was likely to be using some paint on varnish for the top and didn't want it dribbling through the old screw holes in the pallet wood so I grabbed some filler from my garage shelf and got the holes filled in and sanded off. Again, I'm not after pretty so I don't mind that the filler colour doesn't really match the wood.

**Step 4:** One end of the table is going to be resting on the handle of the Weber so I wanted to make sure it wasn't going to move around.

The first part of this step was to get a rough template, to do this I used a piece of cardboard and drew around the handle, then I carefully used a knife to cut it out before transferring the shape onto my project. I remembered how difficult it was to see the pencil marks earlier so I used a permanent marker this time!

I had planned to use my router to cut out a recess in the wood but it decided it was time for retirement and wouldn't power on at all. Instead I improvised and used a small router bit in my Makita Trimmer. After a few slow, shallow passes I had the depth I was going for.

**Step 5:** As shown in the previous step, one end of the table is intended to locate on the handle of the Weber, the other end will be held up with some folding legs. This will allow me to pack the table away easily when it is not in use.

First I measured how high the handle was on the braai; in this case it was 82cm. I also knew that I had cut a 1cm recess for the handle into the previous step, so my legs needed to be 81cm.

Using the larger pieces of the pallet wood I created a simple leg frame which were fastened together using glue and pocket hole screws. This frame will then be attached to the table top with some large hinges.

**Step 6:** The whole idea of this project was to make a table which cost as little as possible but I did want to make sure it was treated with some sort of topcoat.

I managed to find half a tin of clear varnish which I used for the table top; this gave me enough for three coats. The legs were sprayed with an aerosol varnish I had left over, but there wasn't quite enough so I had to resign myself to the fact I would have to spend some money and went to buy another can of the spray varnish to finish the legs.

The tin of clear varnish is not for outdoor use, but I usually pack away the braai after use so the table will get folded up



*The pile of pallet wood which became this project*



*Using a butane torch I lightly burnt the surface of all the pallet wood*



*I then sanded all the pieces*



and put away somewhere out of the elements anyway (plus this is a temporary solution).

**Step 7:** Once the varnish was dry I joined the top and the legs together with a couple of hinges and, voila, I had a finished table. Of course, I had to go and light the braai, grab a drink and test it out straight away.

4



*Using screws I fixed together the table top with a couple of cross braces on the underside*

6



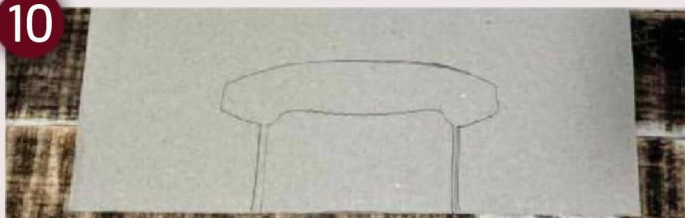
*Marked where to cut*

8



*A good fit*

10



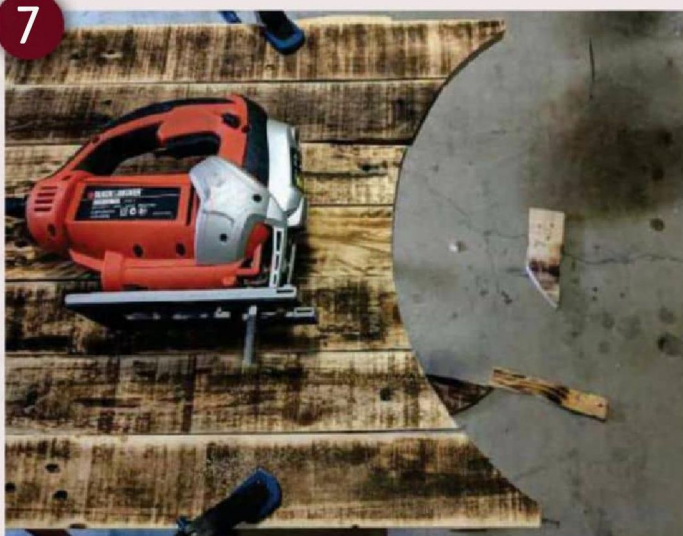
*A rough template of the handle on a piece of cardboard*

5



*Next I used my Weber lid as a template for the curved section of the table top*

7



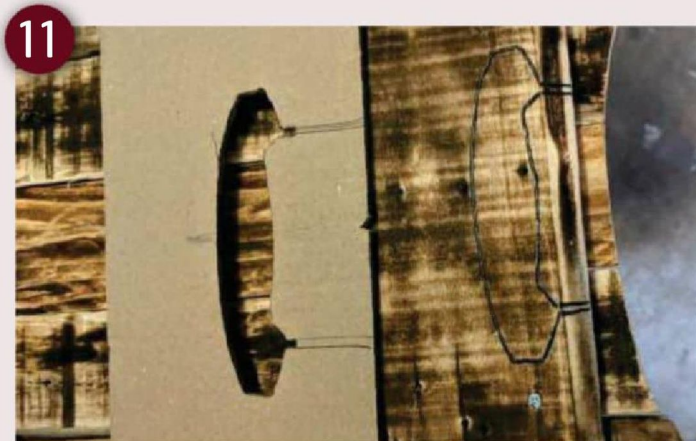
*Next cut the excess off before sanding all the edges*

9

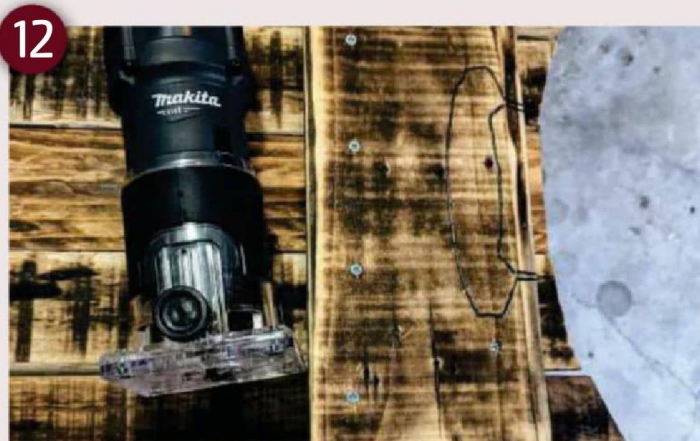


*I grabbed some filler from my garage shelf and got the holes filled in and sanded off*

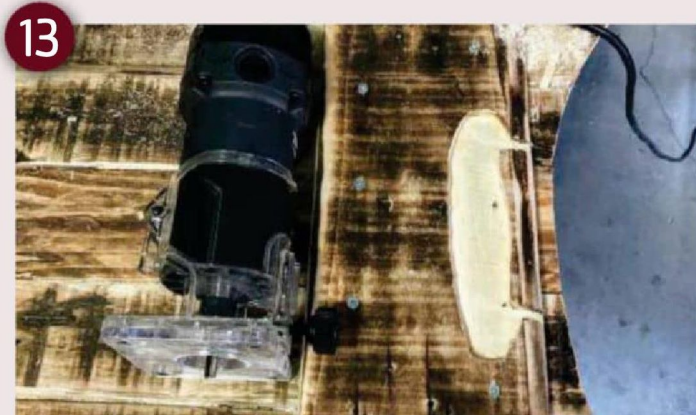




I carefully used a knife to cut it out



Then I transferred the shape onto my project



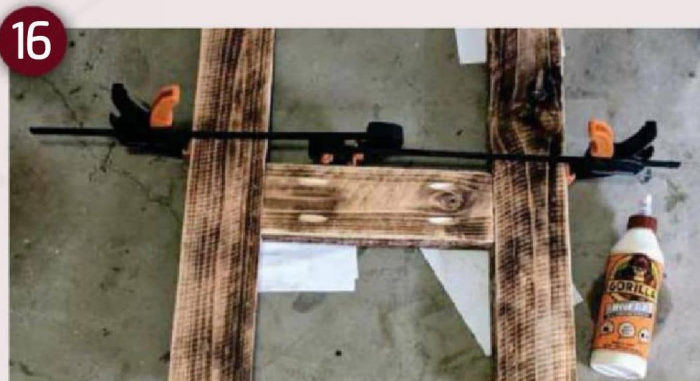
Cutting out the recess for the handle



Measuring the height for the legs



Using the larger pieces of the pallet wood I created a simple leg frame



This frame will then be attached to the table top with some large hinges



Varnishing the table top



Once the varnish was dry I joined the top and the legs together with a couple of hinges



Are you experiencing damp? Sika has a damp proofing solution that will guarantee you to get rid of your damp for good.



### What you will need

- Cemflex®
- Cemflex® Membrane
- Sikalite®
- Portland Cement
- Water
- Wire brush
- Block brush/large paint brush
- Bucket to mix
- Gloves
- Mask
- Mechanical mixer and paddle (quantities exceeding 5l)

# DAMP PROOFING SOLUTION

## Step-by-step guide

**Step 1:** All coatings are to be taken off the walls. In severe cases where plaster has deteriorated, walls should be broken back to concrete or brickwork.

**Step 2:** The entire area should be cleaned and prepared for plasterwork. Once cleaned dampen surface with water, however, make sure there is no standing water on the surface.

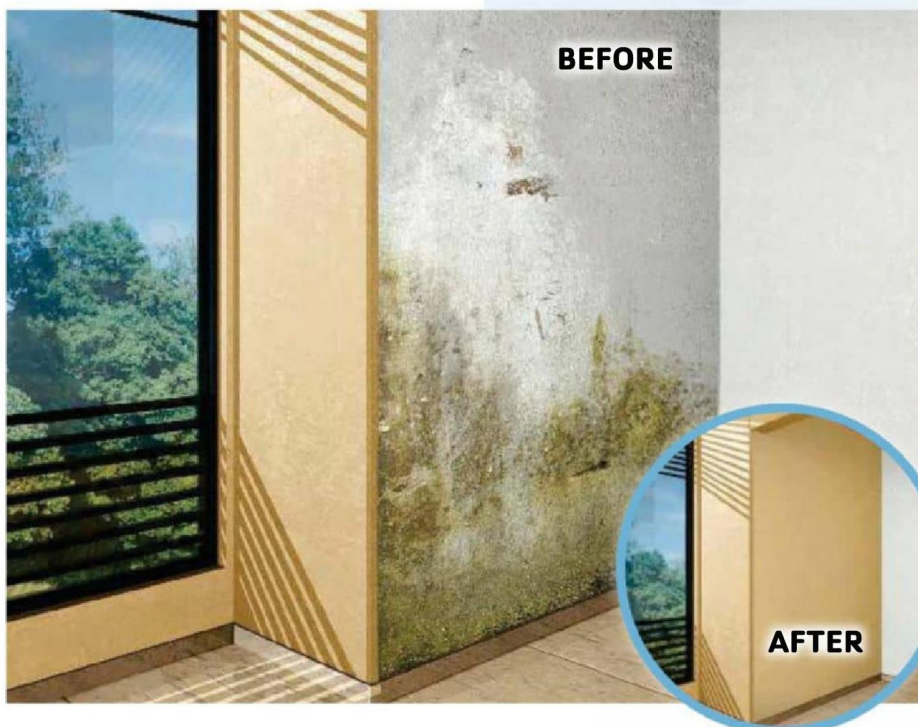
**Step 3:** Brush the first layer of the Cemflex® slurry onto the surface and allow to dry, the following day should be long enough. (See datasheet of Cemflex® for mixing instruction and mix ratio).

### Guideline ratios:

- Cemflex® Slurry: 1 litre Cemflex® + 1 litre water + 3.4kg Portland cement = 6-8m<sup>2</sup>
- Sikalite®: 1kg Sikalite® to 50kg cement and 2 and half wheelbarrows of good plaster sand

**Step 4:** Apply a second coat of Cemflex® slurry that will act as a bonding agent and while the second coat is still wet and tacky, apply the plaster where Sikalite® has been added into the mixture. In severe cases sometimes three layers of Cemflex® slurry would be recommended with two layers of plaster.

**Step 5:** An optional recommendation would then be to brush Sikagard®-905 W on top of the plaster once it is dry. No plaster primer is needed before coating the Sikagard®-905 W onto the plaster.







This system does not prevent rising damp. In cases of rising damp, you may have to treat your floor screed to prevent moisture creep across the floor screed.

### How to spot signs of damp in your home

If a house is suffering from a damp problem, it means there's unwanted moisture. It's usually found in the walls, ceilings or floors.

A damp problem can occur for a number of reasons.

These include:

- Leaking pipes
- Broken or missing roof tiles
- Moisture rising up from the ground
- Bricks that are porous

A small patch of damp on a wall initially might not seem too bad, but if it's not dealt with it can cause problems – and you could find that your home insurance doesn't cover it. Health conditions such as asthma can be exacerbated by damp, too.

Damp problems are categorised according to type. Penetrating damp tends to move horizontally across walls or ceilings whereas rising damp moves vertically up walls.

Here are few signs that your home may be experiencing damp issues:

- A musty smell
- The appearance of mould or mildew on walls, floors or ceilings
- Walls, floors or ceilings that feel cold or wet
- Dark or discoloured patches on walls or plaster
- Lifting or peeling wallpaper
- Excessive condensation on windows

For technical advice contact Sika on 031-792-6500 or visit [www.sika.co.za](http://www.sika.co.za)

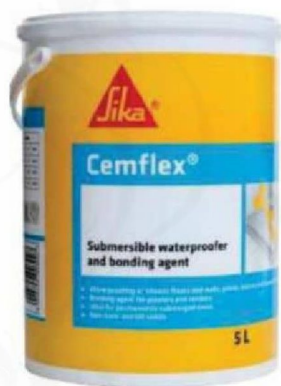
# ONE PRODUCT, COUNTLESS SOLUTIONS

Cemflex® is the most trusted waterproofer in the market and an essential product for all homes.



BALCONIES

## Cemflex®



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**Plaster:** Cemflex® slurry and Sikalite in the plaster to act as a moisture barrier

**Ponds:** Use Cemflex® slurry to seal the surface of your plastered pond.

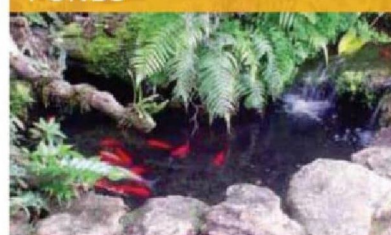
**Showers:** Waterproof your shower walls and floors prior to tiling.

**Flower boxes:** Waterproof your flower boxes before filling.

PLASTER



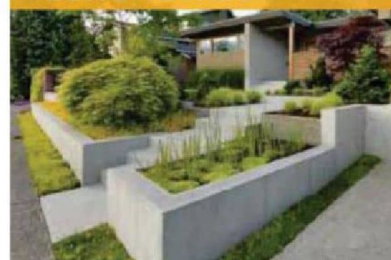
PONDS



SHOWERS



FLOWER BOXES



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**BUILDING TRUST**





# WALL-MOUNTED WINE RACK

Keep a few of your favourite bottles of wine on hand with this wall-mounted wine rack.

## Materials



### Wood products

- 1 x 19mm x 140mm x 1220mm pine board
- 1 x 19mm x 89mm x 1220mm pine board
- 2 x 19mm x 38mm x 1800mm pine board



### Hardware & supplies

- 22 x Kreg 32mm coarse-thread pocket-hole screws
- 10 x Kreg pine pocket-hole plugs
- 1 x Wood glue
- 2 x 5mm x 90mm flathead wood screws



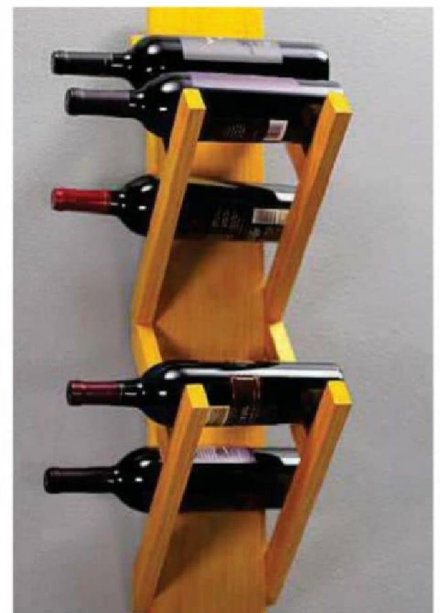
## Tools

- Drill
- Pocket-hole jig
- Miter saw
- Sander
- Tape measure
- Combination square

The clever design stores up to six bottles in a way that also adds fun decor to your dining area or kitchen. It's made from just a few boards and a couple dozen pocket-hole screws, so you can make one in no time.

## PARTS LIST

|                  |                           |
|------------------|---------------------------|
| 1 x Back         | 19mm x 140mm x 775mm pine |
| 4 x Long Brace   | 19mm x 38mm x 370mm pine  |
| 2 x Angled Brace | 19mm x 38mm x 235mm pine  |
| 2 x Short Brace  | 19mm x 38mm x 195mm pine  |
| 1 x Back Spacer  | 19mm x 89mm x 755mm pine  |







## Step-by-step guide

**Step 1:** Cut one Back to length from 19 x 140mm pine, as shown in the cutting diagram. Set your pocket-hole jig for 19mm-thick material, and then drill pocket holes in the Back at the locations shown. With many projects, it doesn't matter if the pocket holes are positioned precisely. When you're drilling pocket holes in the Back, though, you want to pay close attention. That way, when you start final assembly of your wine rack, you know that everything will line up right. After drilling the pocket holes, drill two 5mm holes through the Back at the locations shown. These holes will be used to mount the Wine Rack to the wall in the final step. Sand the Back smooth.

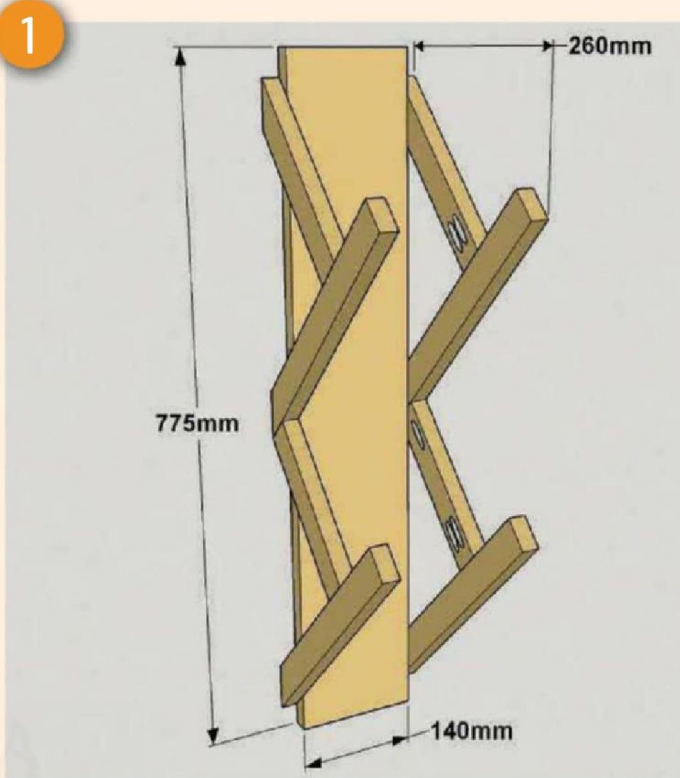
**Step 2:** Next, cut four Long Braces and two Angled Braces from 19 x 38mm boards as shown in the cutting diagram. One end of each of these Braces is cut at 45°. Also cut Two Short Braces, making square cuts on each end of these. Next, you can drill pocket holes in the Angled Brace and the Short Braces, as shown. Make sure when you're drilling them that you create "mirror image" left and right pieces. That way, the pocket holes can all be located facing inward when you assemble the sides in the next step.

**Step 3:** Now you can create a pair of side assemblies. Lay out two Long Braces, as well as the left side Angled Brace and Short Brace, as shown. Use a piece of scrap wood to help with alignment. Glue each joint (but don't glue the assembly to the alignment board), and then secure the pieces using 32mm pocket-hole screws. See the tip to help you decide on the correct screws. Repeat the process to put the right side assembly together. If you want to cover up the pocket holes, now is a good time to fill them with pocket-hole plugs. Glue the plugs into the holes, and let the glue dry. After that, trim the plugs flush with the wood surface, and then sand the side assemblies smooth.

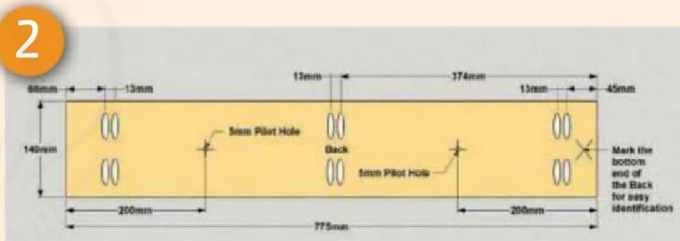


### Match the screw to the wood

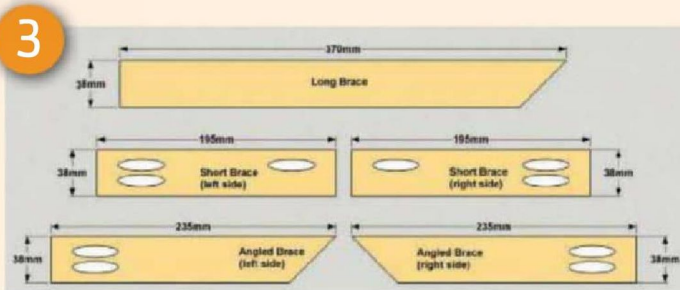
We built our wine rack from pine, which is classified as a softwood. Softwoods are less dense than a hardwood like oak, so softwoods require a coarse-thread pocket-hole screw. These screws have deep, aggressive threads for good holding power in softwoods. If you decide to build your wine rack from a hardwood, such as oak, use fine-thread screws instead. They have less-aggressive threads, but more of them, to hold in dense hardwoods.



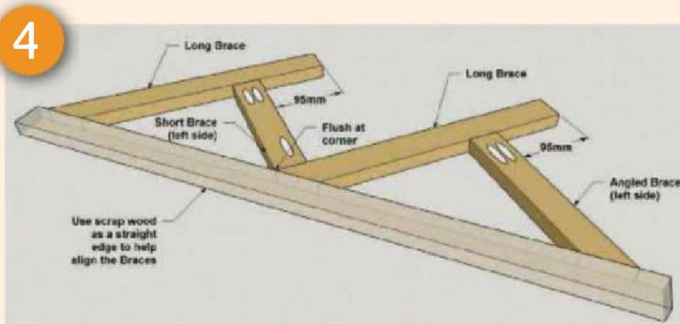
Dimensions



Parts for the back



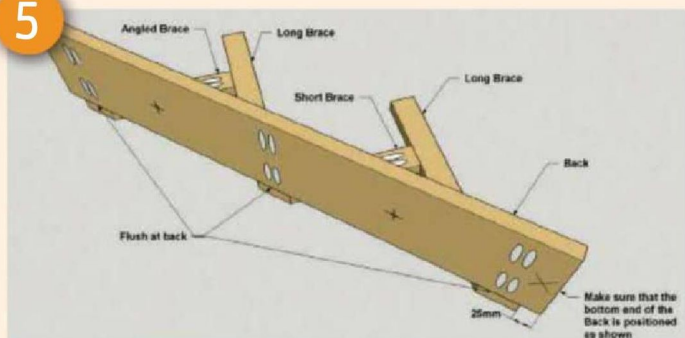
Parts for the braces



Assemble the sides

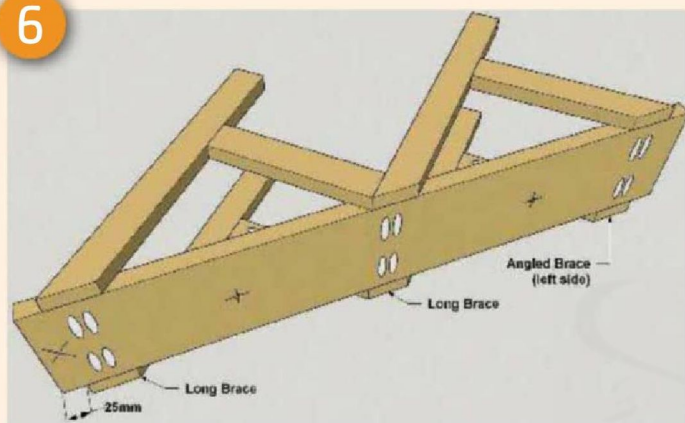


5



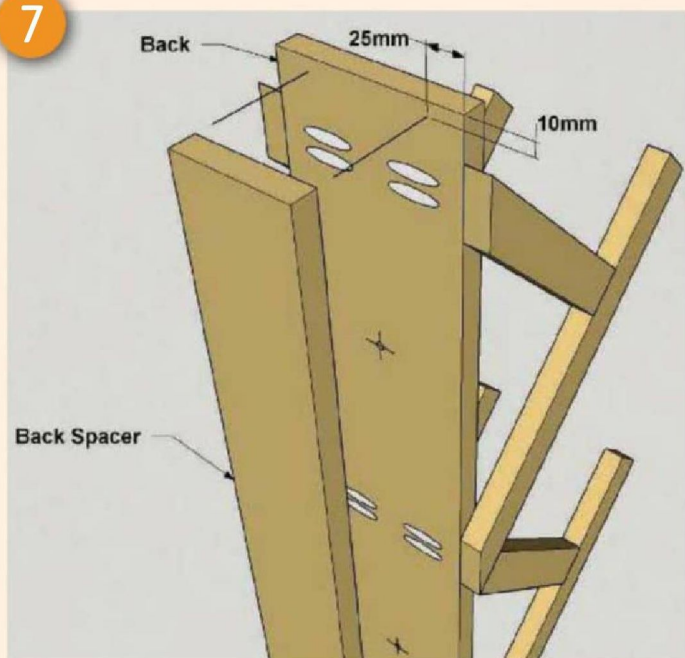
Assemble the sides to the back

6



Assemble the second side

7



Add the back spacer



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For a high res version of the drawings and the cutting list of this project, email [editorial@homehandyman.co.za](mailto:editorial@homehandyman.co.za)

**Step 4:** Lay one of the side assemblies (the right is shown) and position the Back on the assembly as shown. Make sure that the bottom end of the Back is positioned correctly – the pocket holes are located closer to the end at the bottom than at the top. Also make sure that the Back is flush with the angled end of each brace. Apply glue, and then secure the Back to the side assembly using 32mm pocket-hole screws.

**Step 5:** Flip the partially-assembled wine rack over, and repeat the previous step to secure the second side assembly to the back. Make sure that the side assemblies are oriented correctly and aligned.

**Step 6:** Cut a Back Spacer to length from a 19 x 89mm board, as shown in the cutting diagram. Sand the Spacer smooth. Apply glue to one face of the spacer, center it on the Back, as shown, and then secure it in place with clamps while the glue dries. Using the pilot holes in the Back as guides, drill the pilot holes the rest of the way through the Spacer. Then you can paint or stain your wine rack to suit your taste. We used a bold yellow stain.

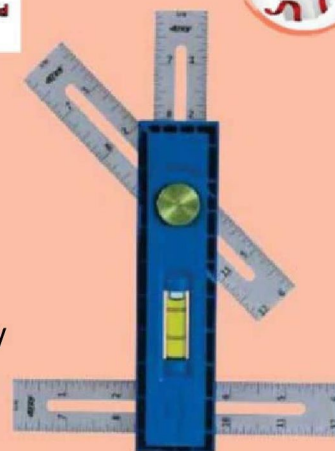
**Step 7:** Find the location on the wall where you want to install your wine rack. Ideally, locate the rack so that it's centered on a wall stud. Then all you need to do is mark the hole locations, drill a pair of 2.5mm pilot holes through the wallboard and into the studs, and then attach the wine rack using 90mm screws.

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# Different types of household fans explained

With warmer weather comes the need for energy efficient cooling methods

## Ceiling fan

This type of fan is, as the name suggests, a fan installed or suspended from the ceiling. A ceiling fan generally consists of four parts: a canopy that serves to keep the fan balanced and houses the wiring, a down rod that positions the fan slightly lower than the ceiling, a housing that covers and protects the motor from dust and blades that rotate to circulate the air.

Ceiling fans can feature anywhere from just two blades up to nine blades. Fans with more blades increase the drag on the motor and therefore move slightly slower than fans with two or three blades. So while they do tend to circulate less air, they are quieter. Fewer blades allow for faster rotation, which results in the sound being more noticeable. With that in mind, fans with four or five blades prove to be an ideal compromise in terms of achieving the ideal balance of air circulation and sound. However, it must be noted that recent technological advancements now mean that regardless of whether a fan has two blades or seven blades, the air circulation is effective and the sound is minimal. This means that more often than not, the number of blades is more about aesthetics.

Other points to think about when selecting a ceiling fan are illumination and control. Some fans come with a built-in light source, but most do not and require either a single or double globe installation. You should also consider how you would like to control the fan – would you prefer a remote control, pull switch or wall control?

## Standing fan

Standing fans are sometimes referred to as pedestal fans. They're made up of a metal stand holding a fan head inside a metal cage. Blade numbers usually range from two to four.

The biggest selling point of this type of fan is that it's both portable and adjustable. Standing fans are fairly lightweight and can be moved about the room, or from room to room as and when required. Simply aim it in a specific direction to get the airflow exactly where you want it. The stand itself is

usually adjustable so you can change the height of the fan and the head may have tilting capabilities.

## Desk fan

Whether you're working in a conventional office or at home, a desk fan is a great option for keeping cool while you work. Studies show that maintaining a workspace with sufficient airflow helps increase productivity. So, if you find yourself feeling sluggish or distracted, this handy appliance may help combat that.

Desk fans come in a variety of designs, with small pedestal and box shapes being the most common. These designs are small enough to fit on most desks without taking up too much space and have a casting that protects your fingers from the blades.

Because they're so portable, desk fans are great for moving around the room and positioning in different spots. They're effective enough to keep a single user cool without impacting others nearby - ideal for an open-plan office space where not everyone may want additional air circulation.

## Misting fan

Portable rechargeable misting fans are a must for the South African summer. They don't rely on electricity to operate, so you'll still be able to keep cool when loadshedding kicks in. This also allows you to move it about the house without concerns about available plug points. You can even take it outside for use on your patio or braai area.

Misting fans combine a regular fan with water jets to create a fine mist. When the water droplets are released into the air, they pull heat energy with them, lowering the temperature to create a cooling effect. This is why you needn't worry about this fan making your furniture or clothes damp.

Another convenient feature of the misting fan is the built-in water tank. Simply fill it up and you're good to go. No need to rely on a pressurised water source while the fan is in use.



As people discover the joy and satisfaction that comes from creating unique and high-quality furniture pieces for the home, restoring old furniture has gained popularity. Pour your creativity into the process of repurposing furniture and you might be surprised at the finished results of your work.

# Beginner's guide to restoring furniture

**W**hen you find a chair, dresser, or table and you want to work on it, first determine whether it is appropriate for stripping. Some pieces will clearly need to be stripped down to the wood. However, other pieces may just need a new layer of finish added to get them ready for use. If your purpose for the furniture is just to get practical use out of it, then it's probably worthwhile to restore and refinish it. But if you want to ensure that you retain the piece's full monetary value, you may want to consult with an expert before you refinish it.

## Questions to ask

Is the furniture item painted? Painting a wood piece of furniture usually happens for a reason, such as covering up imperfections. If you strip the paint, you may be uncovering stains or dents that were not readily apparent with paint on the wood.

Is the furniture item built well? Furniture that predates the 1960s was usually built with solid wood. Newer items often have particleboard or laminate pieces instead of solid wood, which usually means an item isn't worth refinishing. If you have a wood furniture item that predates 1850,

it probably has substantial value. In this case, consult an expert before you refinish it.

Does the item need to be fixed? Check the item's sturdiness to determine whether you need to fix it. Repairing a dresser or chair may require the assistance of an expert.

What will the piece look like after refinishing it? Refinishing in a darker or lighter shade will likely change the entire appearance of the item. Try a new finish colour on an inconspicuous spot to make sure you like it.





### Wood furniture restoration options

You have several options for restoring old wood furniture. You might opt for adding a fresh coat of varnish, or you might decide to completely overhaul an item. Generally, there are three main types of furniture restoration that you can choose.

- **Rejuvenate:** Considered the simplest restoration option, rejuvenation simply involves maintaining the existing finish and cleaning and waxing the wood surface. This option is perfect for a furniture piece that is in good condition.



*If you decide to fully overhaul the piece, you'll be stripping away the existing finish, fixing any cosmetic or structural issues, and applying a new finish to the wood*

- **Repair:** Repairing a wood item involves fixing any cracks and dents without stripping away the existing finish.
- **Refinish:** If you decide to fully overhaul the piece, you'll be stripping away the existing finish, fixing any cosmetic or structural issues, and applying a new finish to the wood.

### Issues that indicate you should refinish

Check a furniture piece for these issues that indicate that it's time to refinish instead of just rejuvenate or repair. If any of these signs are present, consider refinishing. However, you might also decide to refinish if you just don't like the current appearance of a piece.

- Look for water rings or water marks on the wood.
- Feel the wood. If it feels sticky after cleaning it, refinishing is suggested.
- Examine the wood to find blemishes and worn areas.
- A clear coat may have caused the wood to darken.
- Check for cracking, flaking, or chipping of the existing finish.

### Before refinishing

Before you embark on a full refinishing project, try applying mineral spirits to the wood to see what happens. Simply

apply mineral spirits to the wood surface, wiping it on gently with a soft cloth. Wait for the mineral spirits to saturate the wood, and check the results. If the wood finish has an appearance you like, refinishing is likely not necessary. You should be able to proceed with just cleaning the wood and applying a clear coat.

### Refinishing steps

Follow these refinishing steps for the best results. Clean the piece thoroughly to remove all dust and dirt. Use basic dish soap and water to scrub the surface. If the wood has intricate carvings, use a small paintbrush to get into the crevices. Rinse off the soap, and pat the surface lightly with a clean towel to dry it.

Check for surface imperfections such as dents and cracks. Make repairs if necessary.

Remove the existing finish by sanding by hand or with a power sander or by using a chemical stripper. For sanding, start with a coarse sandpaper and finish with a finer-grit sandpaper. If you choose a chemical stripper, apply the product evenly over the wood surface, allow it to sit for the recommended time, and then peel it off with a scraper. Using a chemical stripper will require working in a well-ventilated area, wearing protective

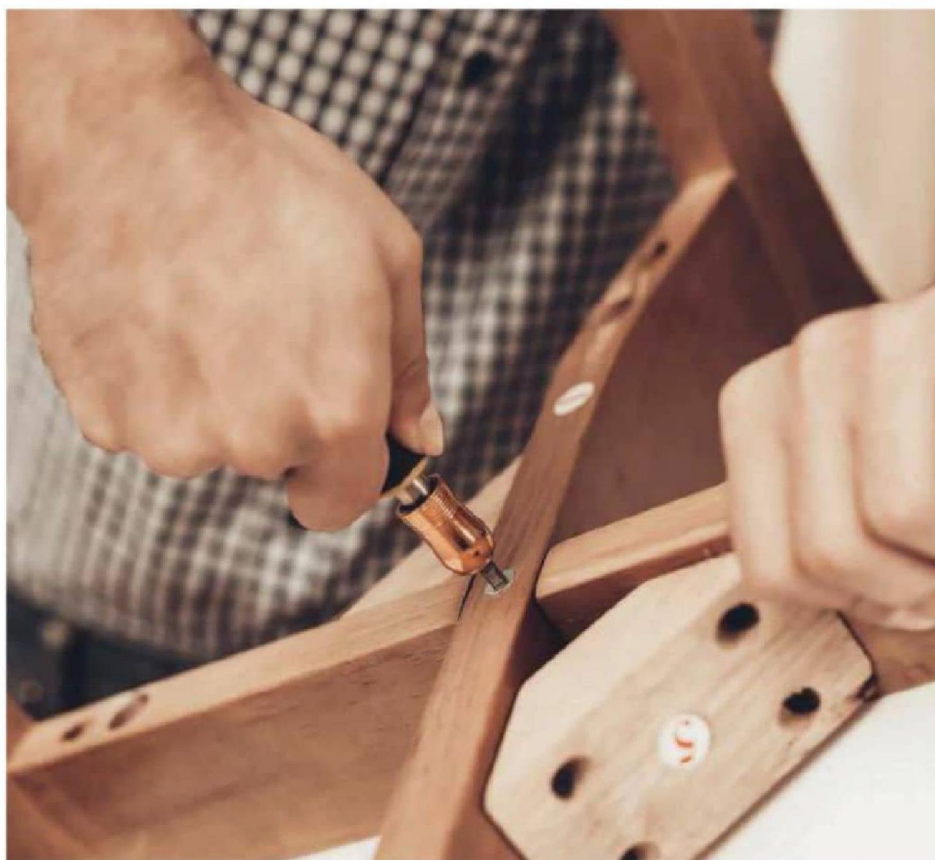


gear, and protecting your work area. You'll also need to allow the furniture piece to dry for at least 24 hours before you apply the new finish.

Apply a grain filler if the wood has an open grain. Apply a sealant to protect the wood and to create a base for the finish. Allow the sealant to dry completely, and then sand the wood a final time with fine-grit sandpaper.

Apply the stain or paint. If you don't like the wood grain, paint may be a good option. However, if the piece is an antique, painting it might reduce its value. Stain comes in water-based and oil-based versions, and some stains also include a finish to reduce the number of applications you'll need to apply. Paint is also available in both water-based and oil-based formulas.

Apply a finish coat. Finish coat formulas will give your piece durability and luster. The finish coat might be sprayed on or brushed on, and you have oil, varnish, and polyurethane products from which to choose.



*A furniture restoration job is time-consuming, but cutting corners will only cause problems in the long run*

### Tips and techniques for refinishing furniture

Safety is the most important consideration when using chemicals and power tools. Even if you've had many years of experience with power tools and home repairs, we recommend you use a safety checklist that includes the following:

#### Safety considerations and preparation

- Organise your work area. Collect all of the tools and equipment you will need ahead of time and have them arranged and sorted before you begin the job. To help keep important items and equipment together, you can place your materials on a large tray, in a cardboard box, or in a work apron with pockets, arranged in the order you plan to use them. Also consider whether you will require a wastebasket, water, paper towels, tape, or other materials that will help you complete the project.
- Protect your eyes. Always wear impact-resistant safety glasses that completely enclose your eye area and are shielded along the sides and top edge of the lenses. They can be worn like glasses, or can fit over your own eyeglasses. Many types of safety glasses can also be obtained with prescription lenses.
- If you're working with paint remover or other strong chemicals, avoid skin contact by also wearing work gloves and an apron.

- Work in a well-ventilated area.
- Label all chemicals with any of the methods and materials.
- Check the lighting. Make sure that the lighting in your work area provides sufficient illumination. A lamp with an adjustable flex-arm or gooseneck is usually a good choice because you can adjust the direction of the light as needed. A flex-arm floor lamp on wheels allows you to move the light with you as you move around your work area.

#### Using sandpaper

- Sanding is always done by following the direction of the wood grain.
- You can generally determine the direction of the wood grain by feeling it with your fingertips. The grain usually follows a lengthwise pattern on a board.
- If the wood is painted or is older, you may not be able to feel the grain. In most cases, sanding lengthwise will produce the desired result.
- To raise or feel the wood grain more easily, apply a small amount of water to the surface of the board and wait several minutes. The water will usually cause the grain to rise so that you can feel it with your fingertips.
- Use your sense of touch to check for smoothness or to locate areas that require additional sanding.



## More about sandpaper

- The fineness and/or coarseness of sandpaper is indicated by grit sizes or mesh numbers: the finer the abrasive, the higher the mesh number.
- Mesh numbers, going from coarse to fine, are as follows: 24, 36, 40, 50, 60, 80, 100, 120, 150, 180, 220, 240, 280, 320, 360, 400, 500, and 600.
- Sizes 80, 100, 120, and 150 mesh are medium-range sandpapers.
- Sandpaper backing refers to the different weights of paper backings for the sandpaper. The letters A, C, D, and E indicate the different backing weights.
- "A"-weight paper is a very lightweight backing called finishing paper. "C" and "D" are medium-weight backings called cabinet paper. "E" is a heavyweight backing used for rotary or belt sanders.
- For most sanding jobs, begin with a coarser sandpaper and gradually move to a finer paper as the work progresses; for example, after using 80 mesh, go next to 100 or 120 mesh.
- Wrap the sandpaper around a sanding block, which can provide more stability and control.
- Be sure to cover/sand the entire surface, using an organised pattern of overlapping strokes.



*If you don't like the wood grain, paint may be a good option. However, if the piece is an antique, painting it might reduce its value*

## 10 common furniture restoration mistakes

### 1: Ignoring safety

Furniture restoration involves chemicals and tools that can injure you, irritate your skin, eyes and mucous membranes, or harm you if inhaled. Every time you begin restoring a table, couch or cabinet, always use eye protection and gloves, and be sure the area is well-ventilated.

### 2: Ignoring instructions

Not only do you need to know how to restore the piece of furniture itself, but each stripping chemical, paint and stain has directions of its own to follow. Even things like sandpaper and tools require certain methods for optimum results.

### 3: Failure to protect the area properly

Whether you are working inside the house, in the garage, or outside, it is important to protect the ground, walls, and other items nearby before you begin the restoration project. The last thing you want is a beautiful table with matching splatters on the wall.

### 4: Incomplete or incorrect removal of old materials

All old fabric and filling must be cut away carefully or removed by pulling out staples or nails that hold it in place. The paint and stain on wooden or metal parts of the furniture piece need to be removed in a safe manner.

### 5: Failure to clean the furniture correctly

Once an item is stripped or bare, it should be cleaned completely before the new finish is put on. Any part that is wet, oily, or dusty will not take the stain or paint smoothly.

### 6: Rushing the job

A furniture restoration job is time-consuming, but cutting corners will only cause problems in the long run. Complete each step well before moving on to the next.

### 7: Skipping the repair step

Once you have the paint or stain off, you have the perfect opportunity to fill holes, repair cracks, or improve the structural integrity of the old piece of furniture.

### 8: Skipping the sanding and prep work

Not only does sanding a piece of wooden furniture make it smoother, it also prepares the wood to take the paint or stain more evenly. Likewise, a coat of primer paint is an important step to make the finished project look better.

### 9: Choosing the wrong materials for the furniture piece

While some purists may say you shouldn't put zebra-striped velvet on an antique couch, those decisions ultimately come down to your personal tastes. However, materials must be appropriate for their purpose. The fabric on a chair must be appropriate for upholstery, and thick and sturdy enough to not fall apart with frequent use.

### 10: Uneven painting and staining

Two of the major reasons why paint or stain ends up uneven or blotchy are rushing through the furniture restoration job and failing to prep the piece appropriately. If you want the piece to look its best, use primer, sand everything first to make sure it's smooth, and take your time with the brush, sponge, or rag when you apply the colour and sealants.



Your balcony is one of the most important places in your house where you can lay back, destress, and spend quality time with friends and family.

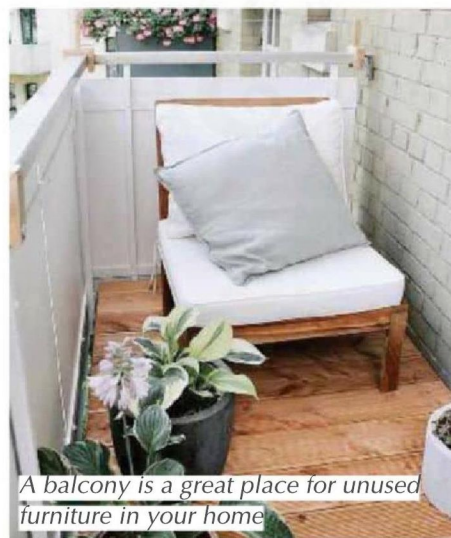
# DIY IDEAS TO DO UP YOUR BALCONY

A balcony is a blessing, particularly in today's congested and stressed times in cities where many of us live in smaller apartments. It represents that open patch of tranquillity, overlooking the sky and sometimes lovely greenery in turn. It is a spot of solace, intimate conversations and simply relaxing at the end of a hectic day.

Below follow several DIY balcony concepts and ideas that will help you create a warm, welcoming and soothing space for yourself and your family. This will also come in handy whenever you are entertaining guests as well. These ideas will not take up too much time on your part while staying comfortably within budget.

## Perk up the walls with wall planters

One of the great ways to perk up your balcony is to decorate your walls. Using



*A balcony is a great place for unused furniture in your home*

wall planters to make your walls look colourful is a great way to get a head start. You can choose the colours as you want; try picking bright colours like yellow, blue, or pink. If you want to bring out the painter in you, you can always paint the walls an interesting colour.

## Use fairy lights

Another great addition to decorate your balcony is using fairy lights. It lightens up your balcony and brightens your mood. You can try using them combined with your plants or with hanging wall art. You can always write something with the lights on the wall to make you smile whenever you see it.

## Use unused furniture

This is the time when you can put all your unused furniture to use. You can paint the background of your wall matching with the furniture to install a chair or two on your balcony. You can also cover them with the rug which can provide you comfort to sit. Don't forget a small table to enjoy your sip of coffee or your favourite books.

## Wall stickers and unused bottles

You can always find some wall stickers from a stationery store and can stick it





Fairy lights add a certain charm to a balcony



Innovative ways to boost your privacy can be included on a balcony



Greenery and comfort make for the perfect balcony

in the pattern you like. You can use the stickers of famous quotes or places you have visited. If you have some small unused glass bottles, you can tie them one after another and can hang them in one corner of your balcony. By adding some water and a few stems of plants, you can add to the beauty of your balcony.

### Seating with wooden crates

Home balcony decoration ideas include choosing wooden crates for seating. You can transform a pair of wooden crates into a charming little nook. The technique is quite simple. When done, you can flip them to the side and they will neatly fit within the space. You can also have a blanket and pillow alongside to provide comfort.

### A cocktail corner

Thinking of how to decorate your balcony stylishly? You can come up with a cocktail corner or nook in the balcony. Say yes to unlimited happy hours outside and all you will require is a charming coffee table along with a couple of low chairs for company. You can create a wonderful space for simply lying back and relaxing to your heart's content while the world passes by in all its rush. You can also choose a pouf with a tray for some additional seating at the same time.

### Added privacy and shade

In case your balcony juts out against the neighbour's balcony, you can integrate taller plants such as bamboo for the creation of a natural wall. This

enables more privacy and is one of the coolest balcony wall ideas that you can consider. You can also hang up bamboo shades which can be raised and lowered whenever required. You can look to create natural 'awnings' as well, although this will take some time to be properly manifested.

With adequate shading, you can enjoy your balcony in almost all kinds of weather conditions. Retractable awnings will safeguard you against the elements and can be installed on most balconies (first check with your homeowner's association if you live in a complex or townhouse). You can choose a classic stripe or a vibrant colour which will truly add a whole new dimension to the balcony.



You can even add artificial grass to your balcony for that outdoors feeling





# HOW TO MAKE TRIANGLE SHELVES

>> Mitch Wilmoth



## Materials

- Wood glue
- Plywood
- Wood filler
- Grey paint
- Fast drying spray finish
- L-brackets
- Self-tapping drywall anchors



## Tools

- Table saw
- Finish nailer/brad nailer
- Orbital sander
- Drill and impact driver
- Level
- Random orbital sander

In this article I will show you how to make floating triangle shelves out of plywood. I was very excited to try to do some type of decorative shelves for my son's room. I found a few photos of inspiration, and then got to work on them. This was a great project that anyone could do.

## Step-by-step guide

**Step 1:** The first step to this project was to cut the plywood into strips. I had a few scrap pieces of plywood from a former project and I used the table saw for this and cut them into 90mm strips. You can make your shelves whatever thickness you would like for these. I made three shelves so I had to rip nine boards.

**Step 2:** After you have your nine strips ripped to width, you can cut them to length. I cut my boards to 450mm long and I cut them all at a 30 degree angle on each end. Instead of using a mitered type of joint, I did an angled butt joint.

**Step 3:** Next I sanded everything down really well. Because the shelves are triangles, I wouldn't be able to sand the inside of the shelf once they were assembled because of the angle, so that is why I did this now (especially the inside). I decided to add some grey paint to the inside of one of the shelves to give it a different look and left the other two shelves just bare plywood. I had some leftover paint from painting the room, so I just used that.

**Step 4:** Next it was time to assemble the shelves. I had a little trouble at first, mainly because of the angle of the shelves and them being a butt joint. I added wood





glue to the joint and then first tried to hold pressure using a nylon strap but it didn't work. I ended up lining them up where they needed to go and then adding blue painters' tape to hold them in place while I tacked them together with a finish nailer. After they were all assembled I used wood filler to fill in the nail holes.

**Step 5:** I sanded everything one more time to get all the sharp edges down and the wood filler smooth. I went all the way up to 320 grit sandpaper. Then I added three coats of a spray finish. I let it dry for a few minutes between each coat and sanded lightly with 320 grit paper. After this the shelves were complete; I just needed to hang them.

**Step 6:** The shelves won't be holding a lot of weight, so each shelf used three L-brackets. I started with the first shelf, and then just spaced them out how I liked them. For the shelves on the sides with the triangle point facing upward, I used two L-brackets at the bottom of the shelf and then one to hold the top. For the middle shelf with the point facing down, I just did the opposite. This was a very fun project to do and pretty quick. You could easily do this in a day.



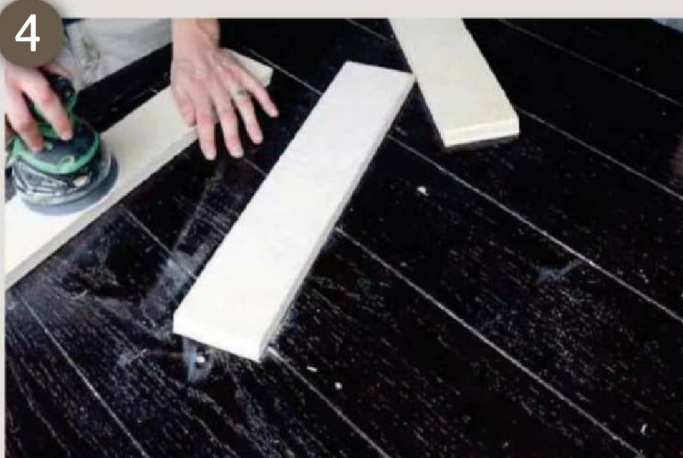
**1** The first step to this project was to cut the plywood into strips



**2** Set your table saw to 30 degrees



**3** Cut each end of the nine pieces



**4** Sand your wood



5



*Painting the inside of one of the shelves*

6



*Preparing to glue*

7



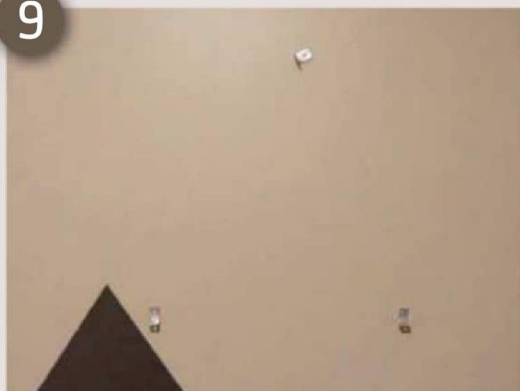
*Using painter's tape while the glue sets before nailing*

8



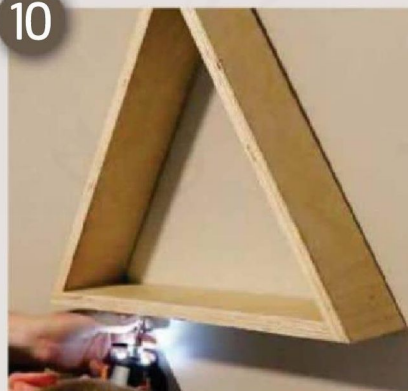
*A final sand*

9



*The L-brackets in place*

10



*Securing one of the shelves*

11



*Measuring and marking for attaching to the wall*



"Every moment I shape my destiny  
with a chisel – I am the carpenter of  
my own soul." – Rumi



# BRIGHT IDEAS

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

WINNER

## Gadget for cutting a thread

When cutting a thread with a die tool into a round bar, I have found that it is difficult to keep the tool square, as at the same time, you have to put some pressure on the tool and turn it around. It often happens, with my best attempts, the thread outcome is skew.

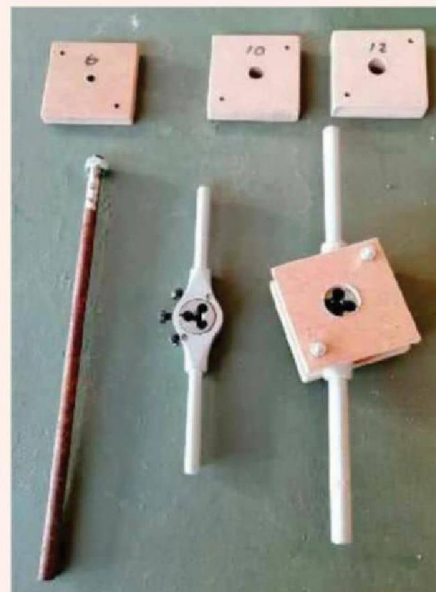
To solve this problem, I have made a gadget as shown in the attached photo. The details are as follows:

1. Four pieces of MFD board (60mm x 60mm x 12mm) were used, that are for the most popular sizes 6, 8, 10 and 12mm die's.
2. For each die a hole must be drilled square into the centre of the MFD

board and the next drill bit size were used (e.g., for the 6mm a 6,5, 8mm a 8,5 drill bit, etc). The reason is that round bar's diameter may be a little bit bigger than the of the drill bit and it will move easier.

3. A piece of Masonite, with a hole in the centre, and with the same size and two 4 x 40mm bolts are used to keep the pieces together.
4. What you only have to do is align the round bar with the gadget and the tool and tighten the bolts. The hole in the MFD board form a sleeve and keep the tool in a square position.

*Chris Mans, Klerksdorp*



## Practice your mitres before the final cut

Before nailing that piece of trim solid check the joint at the other end with a piece of scrap. You'll be amazed what you'll find sometimes. I sure wish they could build walls perfect.

Practice on test pieces for the perfect mitre. Fine-tuning a mitre for a perfect fit is often a trial-and-error process. Practice on smaller test pieces until you get your mitre saw set to exactly the right angle, then cut the actual parts.

*Paul Jones, by email*

## How to weld thicker and thinner material together

Here is one trick that I learned in the field that might save you some time and grief when welding. When welding thicker and thinner material you can take your arc and run it along your thicker material first as a way to preheat the metal, then turn your amperage down and weld the thinner material to the thicker material. I hope this helps others out there.

*Ritchie Wilkins, Kommetjie*



# WIN!

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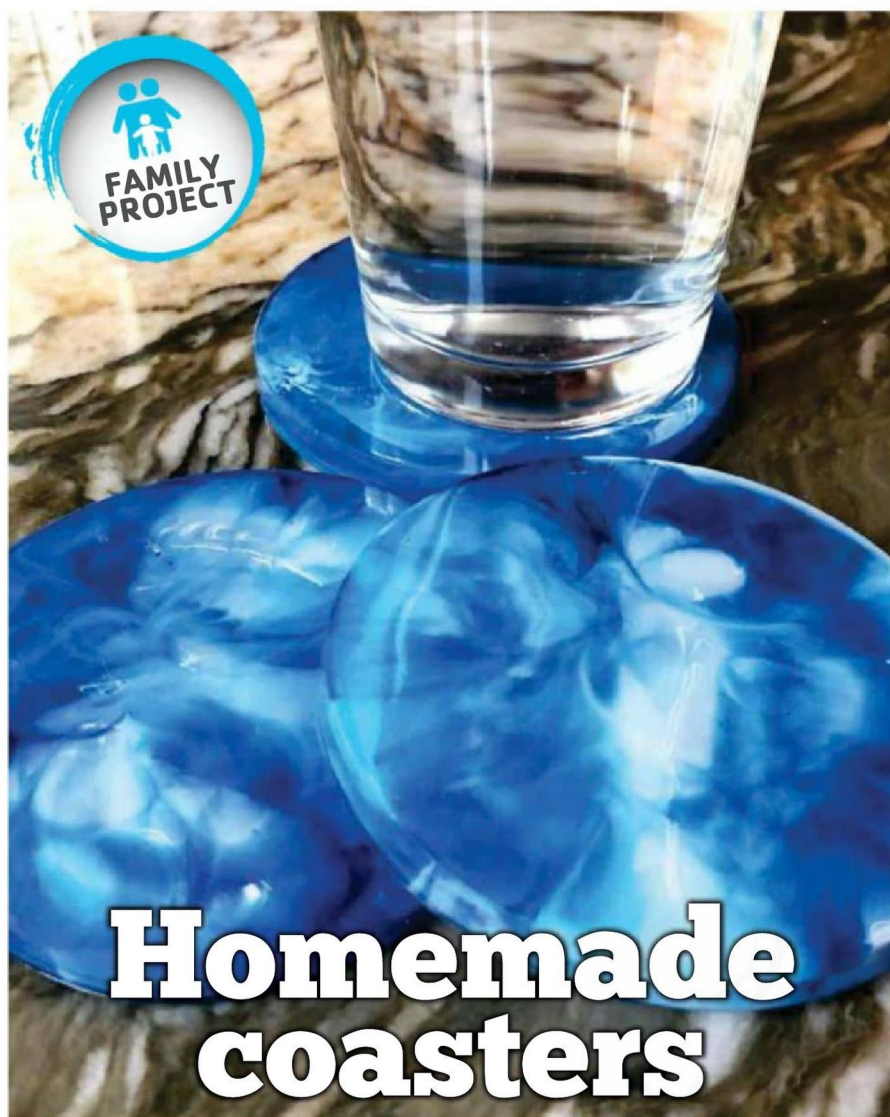
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Congratulations to Chris Mans who wins a 101-piece bit set from Tork Craft.





# Homemade coasters

>> Rhonda Chase



## What you need

- 2-part epoxy resin
- Blue resin dye
- Optional: Second shade of blue dye
- White resin dye (opaque)
- Moulds – preferably something low and flat
- Toothpicks, stirrers, newspaper and/or parchment paper to protect surface, mixing cups
- Gloves, ventilation, mask if indoors
- Flat, sturdy work board (cover with wax paper)

Resin is a wonderful media to work with because you can make it look like so many other things. In this tutorial, I'll show you how to make 2-part resin look like water. I'll be making coasters, but you can use the techniques in any shape moulds.

## Step-by-step guide

**Step 1:** Mix enough clear resin (according to package directions) to fill your mould(s) about two thirds of the way. Then pour some of the clear mixed resin into two or three mixing cups. Colour one portion with white and one portion with light blue. You can make a third portion with a different shade of blue if you want. Leave the rest of the clear resin alone for now. Let all the

epoxy rest for 10-15 minutes to let bubbles pop, and the resin to thicken a little.

**Step 2:** When your resin is slightly thickened, like honey, it's time to pour. Pour some of each colour you mixed (use very little white for now) in sections or strips into each mould. Then add some more blue dye to the blue to make a dark blue. Add some dark blue to the mould.

Continue adding more clear or blue until the mould bottom is barely covered. The colours will blend together and you'll see a water pattern form.

**Step 3:** As the resin continues to thicken slightly, additional colours will be more distinct. Add the white resin in drips or patterns by pouring some directly into the blue base. You can swirl the colours together with a toothpick.

**Step 4:** Create patterns with the clear, white, and blues. The colours will continue to blend as long as the resin is still liquid. Make sure not to overmix or you'll end up with a mostly solid colour. You can still add more of any colour to get a balance you like.

**Step 5:** Adding more clear will give you the look of translucent water and add depth to your artwork.

Add more clear slowly and gently until the moulds are about two thirds full.

**Step 6:** With a toothpick, drag some of the blue into the clear. Again, they will continue to blend while the resin sets, so use a light touch when mixing. When you like your water patterns, it's time to let the resin cure. Cover your moulds with a box and resist touching or moving them until the next day.

**Step 7:** The next day, remove the box and test to see if the resin is cured. It doesn't need to be fully cured at this point. Just solid enough to add another layer. Do not remove from the mould.

**Step 8:** Mix enough clear resin to fill your moulds the rest of the way. Divide



the clear batch in half and tint one portion very light blue. Note: For the next two steps work on the flattest, most level surface possible. I like to put my moulds on a flat board so I can adjust the levelling if needed.

Pour some light blue and some clear into each mould until the resin reaches the top. You can mix these a little if you want, or just let the two colours blend on their own.

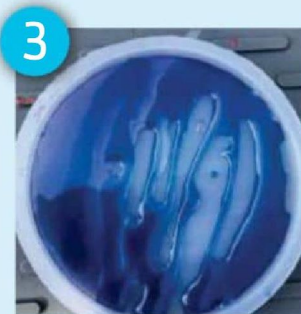
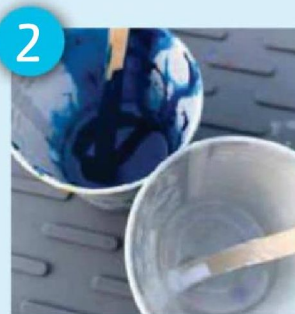
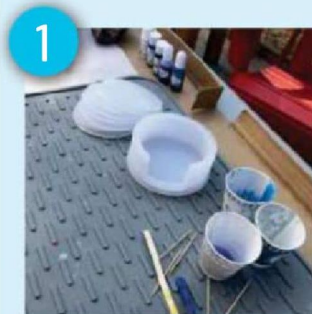
**Step 9:** Pour a small amount of clear, one drop at a time, until the resin forms a slight dome. Look and see if the resin is level (though not flat). If it seems to be collecting on one side, adjust the height of your work board with a little paper or a few playing cards. Protect your moulds with a box again and let cure overnight.

**Step 10:** Before you take your pieces out of the moulds, make sure the resin is fully cured. It should be hard and glass-like. If not, leave them for an additional day. If they are fully hardened, gently pop your resin out of the moulds.

You'll see how you get the whole water effect, and how the other side looks once they are out.

How much you see through the cured resin depends on how much clear you used, and how opaque you made the blues. For this project I prefer not to add a cork backing. This has two advantages. First, the coasters remain see-through. And second, they are two-sided and you can display either side. Properly cured resin is safe on most surfaces, so a backing is optional.

My coasters came out ready to use, but if yours have any edges or imperfections you don't like, sand them. This will take away the shine, so keep sanding to a minimum, using the finest grit you can.



1: Get all your equipment ready, 2: Mix enough clear and coloured resin, 3: When your resin is slightly thickened, like honey, it's time to pour, 4: Pour some of each colour you mixed, 5: Continue adding more clear or blue until the mould bottom is barely covered, 6: You can swirl the colours together with a toothpick, 7: Create patterns with the clear, white, and blues, 8: Adding more clear will give you the look of translucent water, 9: Continue mixing until you are happy with the effect, 10: The next day test to see if the resin is cured, 11: Mix enough resin to fill your moulds the rest of the way, 12: Pour a small amount of clear, one drop at a time, 13: The resin should form a slight dome, 14: Once fully hardened, gently pop your resin out of the moulds, 15: Done.



# ASK OUR EXPERTS

Our panel of experts answer your questions on DIY problems

## What's the best grout material to use with my patio paving?

WINNER

I am coming to the point where I really need to regrout my patio. I'm just unsure what to use... It has obviously had concrete before and this has all broken away. I've heard a lot of people say to use resin, but the gaps are really quite big, up to an 3cm in places. Is resin still appropriate? How will that look with the natural stone?

**Jaco van der Walt**

**Ed replies:** We would suggest that you use a dryish sharp sand and cement mix. If you want it to immediately blend in with the existing paving, add some cement colourant.



## Is exposed brick and plaster dust a health risk?

A doorway was put into my bedroom for an en-suite bathroom. The plaster was cut back and the brickwork is still exposed as it has not been replastered.

Could any harmful dust be breathed in from this? The doorway is currently behind the bed and the bathroom is

unlikely to be finished for at least another year or two.

**Mae Steyn, by email**

**Ed replies:** There should not be any problems, but we suggest you paint the exposed bricks and mortar with a watered down PVA adhesive/sealer just in case.



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Our winning query comes from Jaco van der Walt who wins a subscription to *The Home Handyman* magazine for a year.



## Sealing between shower/bath and tiles

I have just fitted a shower/bath. I want a very neat way to seal between the bath and the tiles. The tiles are already on the wall, so nothing can be tucked behind them. I don't want to use silicone alone as it turns black in time and is a pain to remove and re-silicone with a good finish. I just bought some edging but am having to return it as it has to go under the tiles. Do you know of a type of beading which is easy to install with a good finish, which is obviously waterproof?

**Nathan Jones, Nelspruit**

**Ed replies:** Since your tiles are already on the wall, silicone is the only way to achieve a good, reliable seal. Pick one which claims to be anti mould.



## Staining decking to colour and protect it

We have a large area of decking with hand rails and side-fencing which was installed about two years ago. It's still 'natural' but is going grey in patches and even has a little bit of algae on the south-west facing side of the house. I would like to stain it to give it colour and protection, but retain the wood grain (so not a thick paint). What product would people recommend?

**Trent Nienaber, by email**

**Ed replies:** We would suggest pressure washing the decking, allowing to dry thoroughly and then applying a stain specially intended for decking. As decking is often treated with a stain containing wax when new, water-based stain will not stick on it very well. Over time the original coating wears off so you might be okay using water-based if your decking is well weathered, however a spirit-based stain may be the best option.



## Toilet leaking at supply pipe at base of cistern

I have discovered a leak which seems to be coming from the supply pipe at the bottom of my toilet cistern. It is a slow leak so it wasn't noticed at first.

The leak seems to be coming from the top of the brass connector fitted in the picture and not directly from the cistern. Is this something easy to fix or replace? Or is this an issue with the washer or seal?

**John Laidley, Port Elizabeth**

**Ed replies:** It would be best to replace the isolating valve and this will include a new washer. You will have to turn off the water supply to do this. If you are unsure, it would probably be better to get in a plumber. Clearly due to the PTFE tape there have been problems sealing this fitting in the past. It should, however, be a straightforward job with the right tools and skill.







# PATTERN ROUTING (PART 1)

After last issue's focus on free-hand guiding, Denis Lock examines pattern routing this time around.

In my last article I noted that there are six fundamental ways of guiding a hand-held router. It covered the first way: free-hand guidance. My new article will introduce a second way to guide a hand-held router safely and effectively. This technique can also be used on a table router. The only difference in this case is that instead of guiding the router in relation to a piece of wood a piece of wood is guided in relation to a fixed router mounted underneath a table.

The second way uses a straight bit with an attached bearing: the bearing providing the guidance. Pattern routing is the major use of this method. The term is almost self-explanatory: duplicating a pattern using a router. Pattern routing is a wonderful application. It is certainly the most used router application in my workshop.

A good example of pattern routing is the final shaping of the curved components of the patio chair seen in Photo 1. Photo 2 shows the individual components: three curved and three rectilinear. Forming the straight parts is easy. Rip to width, plane the ripped edges, crosscut to length and drill the necessary dowel and bolt holes. Forming the curved parts requires more work. First you need a template: copied, perhaps, from an existing chair or reproduced from a plan by photo enlargement. Then the blanks must be cut (fractionally oversize) to shape using a bandsaw, scroll saw, jig saw or bow saw. Now comes the laborious part: trimming to meet the markout line and getting rid of the saw marks. Typically, this is done on a spindle sander (Photo 3), the drum at the end of a belt sander or a drum sander fitted in a drill press. I have used all three machines but have never achieved totally satisfactory results. When I run my finger over the sanded edge I always

feel slight bumps: hills and valleys. Maybe I must practice more.

Enter pattern routing: a much better way! Instead of a cardboard or 3mm plywood / MDF template make a 6mm (minimum) or thicker pattern from quality plywood (no voids) or MDF. The pattern is first used to markout the blanks for cutting. Then it is attached to the cut blank and the excess is trimmed using a straight router bit with an integral bearing. Photo 4 shows two such bits. More detail about these bits will come later.

At this stage I want to document one fundamental attribute of the two types of bits. The cutting diameter of the bit is identical to the diameter of the attached bearing. After trimming the result is an exact copy of the pattern. And the next one is an exact copy. And the next one... Photo 5 shows all the curved pieces for a set of six of the patio chairs featured earlier: three groups of twelve pieces each. You can see that the twelve pieces in each group are identical in shape. This raises an interesting question: one that is often asked on my pattern routing courses. At what count of duplicates is the making of a pattern justified: four, eight, twelve ... The students are amazed when I reply that I will sometimes make a pattern to shape a single piece. I make sketches and use CAD drawings when designing a new woodworking project. I am only happy when I see a full-size curved piece in 3D. Why make a prototype from a good piece of wood only to reject it and make a revised prototype only to reject it as well? I make my full-size prototypes from 6mm MDF. I don't mind throwing a piece of MDF away. When I am happy with a prototype I have a 6mm pattern ready to use to simply trim the actual component.

>> Denis Lock



1



Patio chairs

Before digging into the details of pattern routing let's look at a few more examples. Photo 6 is a toy tip truck under construction. Two identical cab sides are routed using the pattern seen on the right of the picture. The truck was made by Linton Lake of Halfway House. Users swear by the wooden spatula in Photo 7. Why scratch your expensive cookware? A detailed write up on this piece of treenware appeared in the November/December 2019 issue of *The Home Handyman*.

My first pattern routing (Photo 8) was done more than fifty years ago. This headboard was made when my daughter moved out of her cot. I am sold on the idea of prototypes. The pine chair on the left of Photo 9 was the prototype for a set of eight mahogany dining chairs. Like the patio chair mentioned earlier it has three curved components. These were pattern routed. The piano stool on the right of Photo 9 has four identical curves; each pattern routed using the same pattern. The door opening in Photo 10 was originally an open archway. I fitted an arched frame and two doors. The pattern used (the biggest I have made) was made on site as seen on the right of Photo 10. I think I have shown you enough examples to convince you that there is a lot of scope for pattern routing. Time to dig into some detail.

Let's go back to Photo 4 and learn more about the two bits. The flush trim bit on the left was developed first. It was used to trim laminates applied to kitchen counter tops and the like. It was soon put to use as a pattern routing bit. There are times when a tip bearing doesn't work and the bit on the right was developed. Most woodworkers simply call both pattern routing bits. Which one do you use? It depends on where the pattern is in relation to the router base or router table. When doing hand-held pattern routing I prefer to use a tip (bottom) bearing bit. The setup is shown schematically in Photo 11. The pattern is below the workpiece and the bit is clear of the workbench. Should I inadvertently tip the router it pivots around the bearing (Photo 12) and leaves a protrusion (bump) on the routed edge. The workpiece is not damaged and a second router pass removes the bump. If a shank bearing bit is used the pattern is above the workpiece and tipping the router results in a gouge in the workpiece. When routing this way, I find a method to prevent tipping. Photos 13 and 14 show the setup for each of the two bits when using a router

2



Patio chair components

3



Spindle sander

4

Flush trim bit  
(tip or bottom  
bearing)Pattern bit  
(shank or top  
bearing)

Straight bits with bearings

5



Enough for six chairs



6



*Toy tip truck*

7



*Wooden spatula*

8



*Headboard for a special young girl*

9



*Dining chair and piano stool*

table. Again I prefer to use a tip (bottom) bearing bit (Photo 13) with the pattern above the workpiece. When using a shank (top) bearing bit (Photo 14) the sharp tip of bit protrudes above the workpiece. I make sure I have a bit guard mounted when working this way. Photo 13 is a schematic. Photo 15 is a real-life photo of pattern routing one of the components of the patio chair shown earlier. The highlights noted on this photo are: A – pattern, made from MDF; B – one of two attachment screws; C – handle for safe and comfortable use; D – edge already routed; E – edge still to be routed; F – chip extraction hose. The same pattern is used for both left-hand and right-hand components. Simply unscrew the handle and screw it to the other face of the pattern: viola – a mirror image pattern. Note the difference between edge D and edge E. Edge D is smooth and requires a minimum of hand sanding. Edge F shows the bandsaw marks and extends less than 1mm beyond the pattern. My objective is to bandsaw cut to within 1mm of the markout line. This leaves about 1mm to be trimmed by the router bit. Pattern routing is a trimming operation not a cutting operation.

It sounds as if shank bearing bits are unnecessary. Not at all: there are many operations where the template has to be mounted under the work. When pattern routing small workpieces, like the spatula in Photo 7, I use a combined jig (workpiece holder) and pattern. This is shown in Photo 16: the template has to be under the work. There are also times when grain direction dictates that the pattern has to be underneath.

The bearings used on pattern bits (see Photo 4) are about 6mm thick: 6mm MDF is thus thick enough to use as a pattern material. There is no harm in using thicker material: the template in Photo 15 is made from 9mm MDF. The router bit bearing rolls against the template: it does not rotate and wear the template. Some authors suggest varnishing the edge of an MDF template or coating it with super glue to prolong its life. I have not found this necessary. A template must be very accurately shaped. Any imperfection is reproduced over and over. After cutting a template out on a bandsaw I fine tune it by draw filing with a second-cut file. Draw filing is moving a file forwards and backwards along the length of the material's edge. It is quite easy to get very smooth curves this way. The thickness of the material is only 6mm or 9mm and MDF is homogeneous: no hard or soft spots.

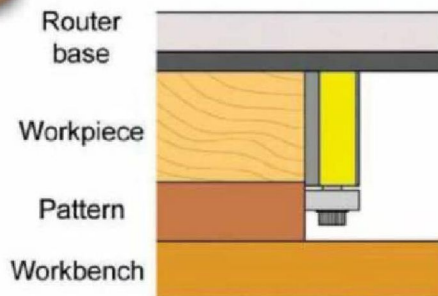
10



*Arched doorway*

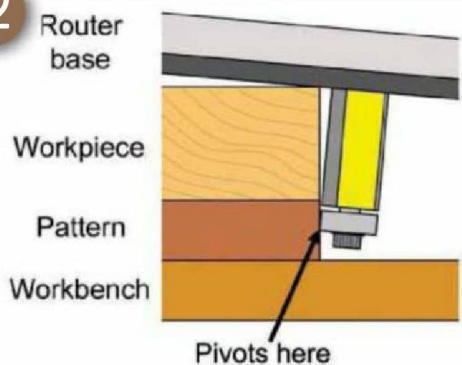


11



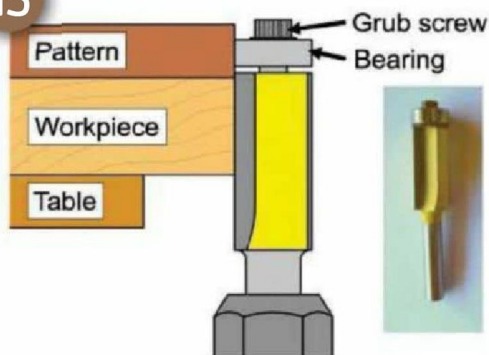
Hand-held pattern routing

12



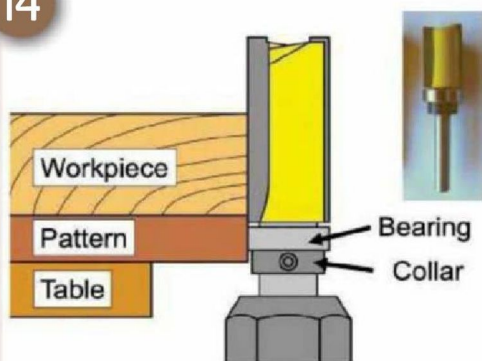
Tipping does not ruin workpiece

13



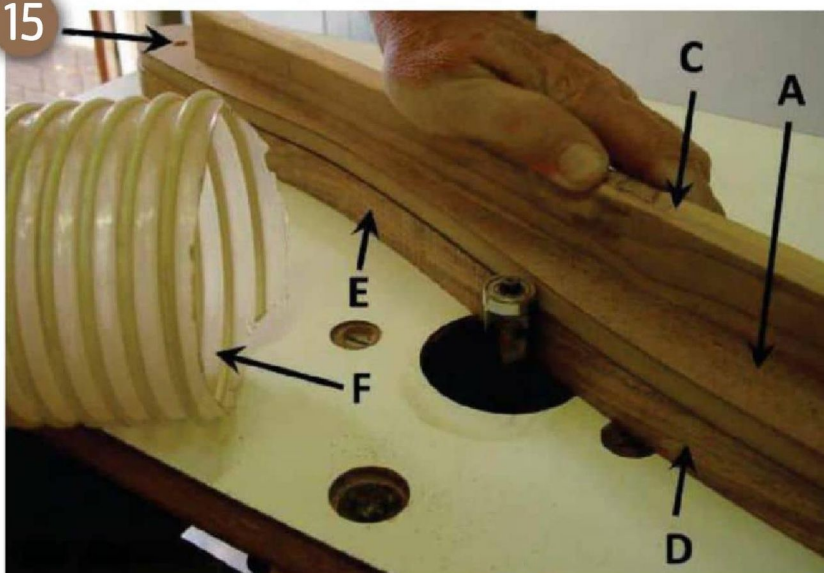
Using a router table

14



Alternative router table use

15



Practicing what I preach

16



Jig/pattern for spatula

In Photo 15 the pattern is attached to the workpiece with screws. But that leaves screw holes in the workpiece. It does not matter because two dowel holes are going to be drilled in these positions (see photo 2). The curved pieces for the chair in Photo 9 were all cut 20mm longer at each end as was the pattern. Two pattern holding screws through this extra bit did not matter. This excess was cut off after the pattern routing had been done. In a lot of cases screw holes are hidden by subsequent assembly. Sometimes C-clamps will do the trick. The go-to solution, however, is double-sided tape. I have tried a number of brands of double-sided tape and have settled on the Sellotape brand. I use both the 12mm and 24mm wide tape.

Give pattern routing a try: you will find it a most useful technique. If you are interested in making a set of patio chairs contact me to arrange a set of templates. I will be pleased to answer your questions (email me) and to see photos of your work.



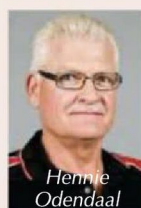
### ABOUT DENIS:

Denis Lock runs a woodworking school and shop. He can be contacted at [denis@tacazze.co.za](mailto:denis@tacazze.co.za) or 082-267-5948. Visit his website at [www.routingwithdenis.co.za](http://www.routingwithdenis.co.za)



# WOODWORKER'S CORNER

Sharing techniques, ideas and a love of wood



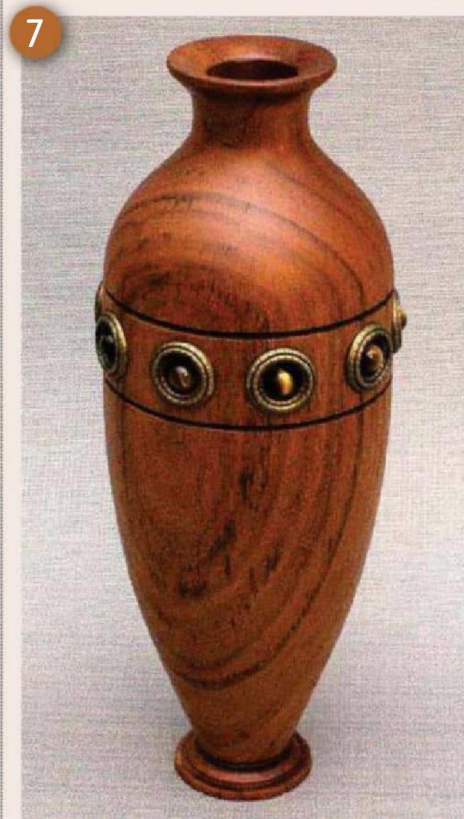
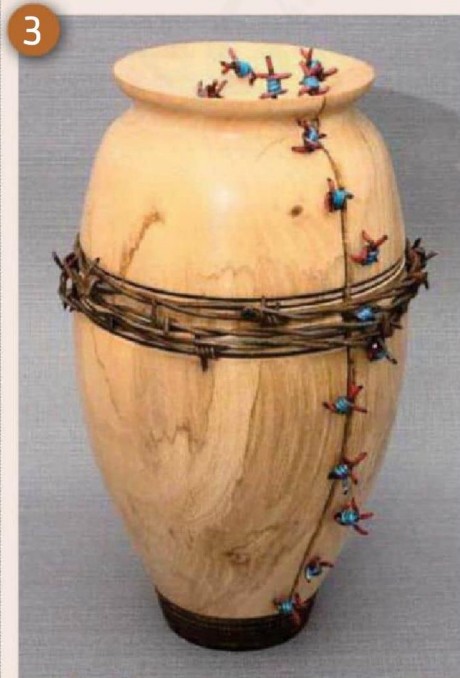
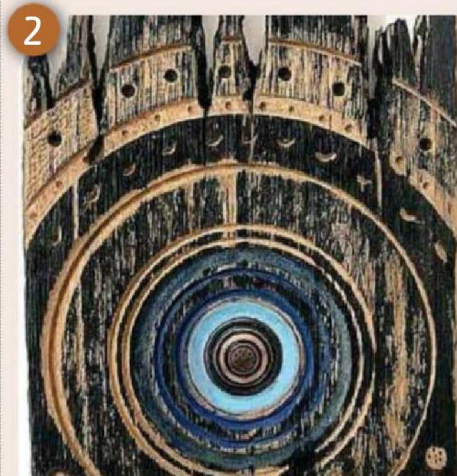
This is a follow-up to our March/April 2020 article on Hennie Odendaal and his artistic woodturning.

Hennie is an award-winning artistic woodturner and wood sculptor and has a small gallery in his home in Port Elizabeth. Specialising in artistic expression, he draws inspiration from music, nature, architecture, and woodturning literature. He is known to place an uncompromising emphasis on strong design and skilful workmanship from start to finish.

Hennie finds that the lathe allows him the most autonomy to be creative, utilizing his natural creativity and all those transferable woodworking skills to venture in a different direction. He is enjoying experimenting with several different themes, styles, and designs and consistently tries to reclaim or re-purpose lumber when he can do so. With the variety of tools acquired over the years, he has the advantage of being able to start with a fallen tree or random piece of wood instead of having to shop for lumber that has already been prepared by someone else. Depending on the characteristics of the wood, once a piece is turned, he likes to enhance it with colours, carvings, or textures so that each one is unique. All his turnings are finished on the inside as well as the outside to ensure the highest possible level of overall quality. He usually adds some little detail on the bottom too.

Hennie made good use of his time during the lockdown and allowed his creativity to flow; you can see in some of his pieces that he even took inspiration from the restrictions imposed with the wine bottle and goblet he turned.

## Artistic woodturning

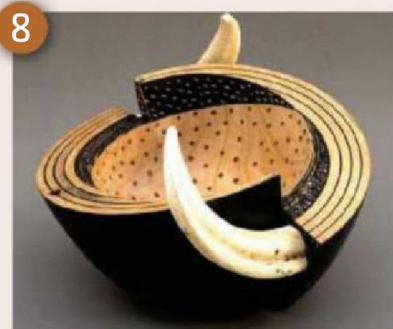


1: Vietnam Rice Fields – Cape Ash wood, 2: Driftwood – Textured, 3: The Feared – London Plane wood and Fence Thorn wire, 4: Something Different – Painted Jacaranda wood, 5: Think Outside the Box – Cape Ashwood, 6: Reality – Wet Brazilian Pepper wood, 7: Eye of the Tiger – Teakwood and Tigereye Marblestone with Deco rings, 8: Out of Africa no. 2 – Cypress and Warthog teeth, 9: We Can Make a Difference – Painted Jacaranda wood



Hennie is passionate about woodturning as a legitimate art form, not merely a craft work, though the two are intimately connected. 'Crafted art' is a good term for this art genre, which has been in existence since the 700's BC and deserves full artistic recognition.

For more information, visit [www.wood-art.co.za](http://www.wood-art.co.za) or search #HennieOdendaal on social media.



## How to start wood carving

To start wood carving you need to know about types of wood carving, wood carving setup, wood carving tools with their uses, best wood for wood carving and how to prepare it for wood carving, wood carving methods, techniques, and many more. Most importantly, you need to be passionate about wood carving to achieve the progress you wish.

As with any other field or craft, there are several things you need to familiarise yourself with:

**1. Selecting the right wood** – If you know the perfect wood to get the perfect output, it'll save your time and increase the desire to learn more. So, selecting the correct wood is important to know before you go for carving.

**2. Selecting the right tools** – Never waste your money on unnecessary stuff before knowing about how and when you want to use them. There are some tools in wood carving applicable for multiple tasks. So, before anything you need to have a clear idea about what are the tools you really need and their uses.

**3. Always follow a plan** – Before starting any kind of wood carving, make a plan by yourself or download one from the internet. There are plenty of wood carving plans in there. You need to figure out measurements and where should you put cuts. So, take a piece of paper and a pencil and draw the plan before anything.

**4. Wear gloves** – Safety is important in wood carving. You have to work with machines, knives, cutting and peeling tools, and many other hard metals sharp stuff. So, make sure always you wear gloves for both hands. When you're a pro at wood carving games, there is a certain point you can do things even without wearing gloves to get fine details that difficult wearing gloves. But until then wearing gloves is a must for wood carving for beginners.

**5. Sanding is a must** – Whatever wood you going to carve, sanding is important. By sanding you can prevent happening lot of issues like cracks, dents, debris, and it smoothens up the surface. So, do sanding with fine-grit sandpaper before starting carving.

## Types of wood carving

**Whittling:** Whittling is the oldest wood carving type. Whittling uses a straight knife/pocketknife to carve the wood. For whittling, we always go for softwoods, because hardwoods are difficult to cut and add fine details. This is also known as the carving in the round. You can give various shapes and designs to the wood by cutting it using a knife.

By cutting small slices of softwood, you can make beautiful things like a wooden spoon, wooden bunny, wooden flower, and many more small figures. Whittling does not need huge and costly tools. Most of the wood carvings only need a pocket knife and a softwood piece.

**Chip carving:** Chip carving is a perfect

niche for beginners. You can make cool attractive designs using softwood and a good old chisel with some small cuts. Chip carving is mostly used for decorative purposes. Other than that chip carving is great for picture frames, cabinetry designs, or other workbench tasks. Whittling is for figures while chip carving is for designs. However, both types are great for beginners.

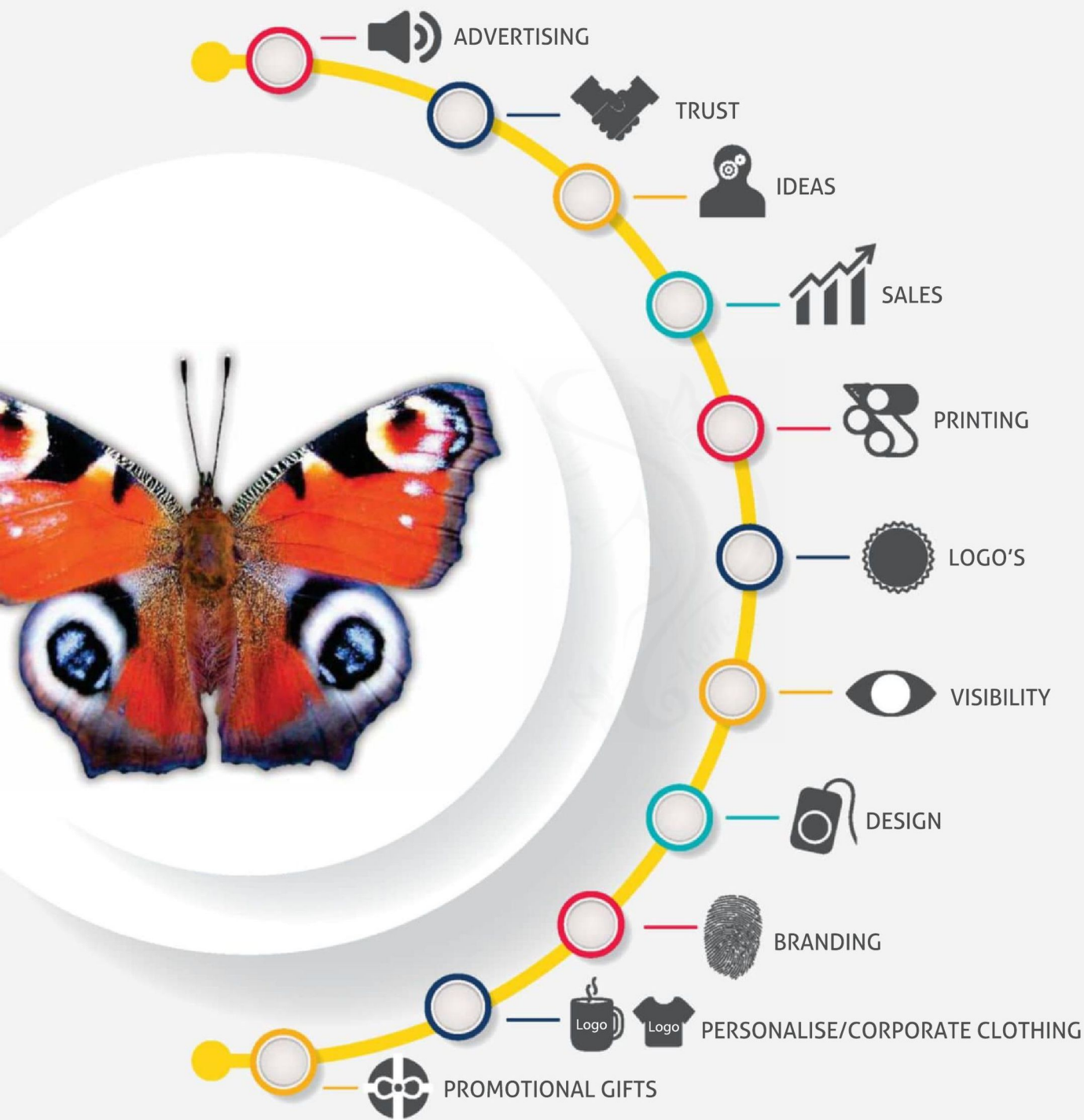
**Relief carving:** Relief carving needs some advanced carving techniques. In relief, carving figures are made in flat wood. In relief carving the design has 3D look from the front and a flat surface from the back. There are two types of relief carvings known as a high relief and low relief that varies upon how deep the

cut is. By relief carving, you can describe people, places, animals, and activities easily because of its 3D look. If you're a beginner in wood carving, it's better to practice several other types of designs before start with relief carving, because of its difficult, advanced methods.

**Pyrography:** Pyrography is a unique wood carving type that use to decorate wood with freehand burn marks. Pyrography is also known as writing with fire. This is done by a heated pen tool and the results are impressive. With a good pyrography kit, you'll be able to make beautiful drawings with awesome textures. Pyrography is also great for a beginner in wood carving, which needs to have good creativity.



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# 10 digital tools to help you DIY your dream home

Even in today's digital age, you still can't quite design a dream home in just a matter of clicks. You can, however, use a number of online resources and a phone full of apps to help the whole process operate smoothly.

## For inspiration

Like a Pinterest board full of inspiring home remodels, Zillow Digs features photos from designers and contributing members. Pore over the pictures and borrow ideas for your own projects. Zillow even estimates the remodelling costs for your favourite projects.

## For learning about your tools

No other DIY app takes such a complete look at the tools we use to make our homes more beautiful, safe, energy efficient, and enjoyable. Bob Vila's Toolbox even offers quick audio tips and 18 short videos to walk you through the basics of tool use. It's a super-informative, well-illustrated instruction manual come to life.

## For carpentry and floor work

For carpentry gurus – or for anyone who likes learning about trees – I.D. Wood is pure nirvana. With an extensive list of the world's woods, from Abacate to Zebrano, this app schools you on durability, timber grades and sizes, common uses, and more.

## For choosing colours

Is one paint company's Foggy Wisteria the same as another's Lavender Mist? HB Color cuts through colour confusion with a smart palette of functions. Zero in on your intuitive preferences with a quiz, peruse colour combinations recommended by decorators and House Beautiful editors, or fish from the "Color River" to find the moods, shades, and tints that fit your vision.

## For keeping To-Do Lists in check

A virtual hub for your remodelling and repair needs, HomeSpot HQ lets you upload lists, paint chips, and warranties to keep all your information in one portable place. The tool will even send reminders for essential maintenance chores so you'll never again forget to change your air filter.

## For mapping out a floor plan

Forget about graph paper – MagicPlan turns your smartphone's camera function into a floor-plan tool. Easy-to-understand tutorials help you take a 360-degree photograph, which you then load into the app. This tool generates an interactive floor plan that you can save, export, and use as a basis for your next renovation.

## For saving dimensions

Looking for a fast and easy way to save and share information like room dimensions, door and window sizes, or cabinet lengths? Use the app IMAGinE Measures to mark up photos on your phone with measurements and notes. (The app also calculates angles based on measurements).

## For hanging stuff up

Billed as a virtual laser level, sightLEVEL uses the phone's camera and accelerometer to determine angles and slopes. Just hold your iPhone or iPad sideways and tilt until the bubble is centred. You can even use it to find the slope of something.

## For estimating costs

Five-star renovation app Handyman Calculator offers a wide variety of customizable calculators to help you determine the quantity and cost of materials for your next job. In addition, you can use it to create shopping lists, plan future tasks, and flip through DIY tutorials.

## For design help

Imagine Mark On Call as a pocket-size personal assistant. This app enables you to map out the floor plans of rooms based on their real-life dimensions. You can then move on to enrich the layouts you create with furniture, textiles, and flooring types, either extracted from your photos or from the app's library.





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- Artificial grass can be environmentally friendly
- Durable – lasts up to 20 years
- Long term investment



**25mm Augusta**



**25mm Cruz**



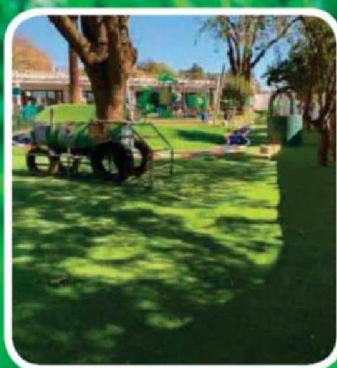
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