WINTER 2007

LOWE'S

woodpost

Creative Ideas for Woodworkers™

BUILD THIS LAZY SUSAN

Create this simple project and add some convenience to your tabletop.

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Let's build something together

Around the holidays, decorations and collectibles showcase your seasonal spirit. But you also may need a way to display a favorite collection year round. In this issue, you will find the perfect solution—two projects to give as gifts or to house your own keepsakes in style.

We often hear people say that woodworking is all about building boxes, so we're tapping into that philosophy with two of our projects. Our Display Case and Presentation Box create unique ways to hold your treasures—and challenge your woodworking skills at the same time.

But we're also thinking outside the box with our Lazy Susan project. Perfect for the beginning woodworker, it combines pre-manufactured elements and will require some skill with a jigsaw.

In this issue, note that we've shown some painted and stained versions of the same project so you can see the impact that different finishing techniques can have on the same piece. We also hope this will help you to think of woodworking as not only about building projects, but also about finding the right design scheme for your handiwork.

Finally, please continue sending your questions for our Q & A column so that we can provide you with advice to help guide you through your projects.

Melissa

MELISSA BIRDSONG,
VICE PRESIDENT, TREND, DESIGN & BRAND
LOWE'S COMPANIES, INC.

IN THIS ISSUE

CONTRIBUTORS

HOSEY HUTSON
Hosey drew on many resources and experiences when designing the projects in this issue. Knowing the value of collectibles, Hosey created the Display Case and Presentation Box.

GEORGE BREEDEN
A lifelong woodworker and retired mechanical engineer, George appreciates the capabilities of a good jig. He built the Hold-Down Clamp for this issue, and he also built the Display Case.

CHRIS HILL
Chris tested his precision skills when he built the Presentation Boxes. He liked the results, but found cutting the dadoes for the grid parts challenging. It was a welcome change when he designed and built the Lazy Susan.

How-To Plan

To download project and How-To plans such as our Hold-Down Clamp, visit **LowesCreativeIdeas.com/Woodworkers.** This project is especially useful for holding and stabilizing small project parts. You can find the plans online through November 1, 2007.

Safety Is Your Responsibility

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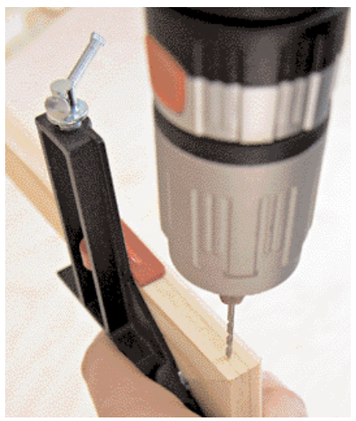
PHOTOGRAPHY BY PADEN REICH/SPC; BREEDEN PORTRAIT, CHRIS HILL

Q&A With the Experts at Lowe's

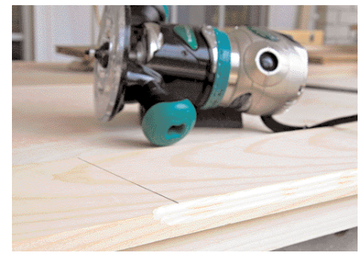
Q How can I avoid splitting mitered pieces when nailing them together?

A Assemble the miter joint with glue only at first, and leave it in corner clamps until the adhesive cures. Before nailing, drill a pilot hole that's slightly smaller than the nail diameter. If possible, leave the clamps in place while nailing the joint to provide a more stable surface and help prevent the wood from splitting. Drive nails into both pieces at an angle so they travel cross-grain (diagonally), positioning the nails near the inside of the corner.



Q How can I securely and safely hold small project parts while working on them?

A Clamps and bench vises generally provide the holding power you will need for these projects. Clamps are particularly helpful when used with jigs or fixtures that securely hold small workpieces. This is a common application for small toggle-type and hold-down clamps (see our Hold-Down Clamp project; details on page 2). When making multiple small parts, machine or process them on a larger or longer blank, and cut into smaller parts as a final step. Making several pieces at the same time is safer and more efficient than machining individual parts.



Q I often experience irregular cuts when I start and finish routing edges. What can I do to avoid this?

A Leave the workpiece a few inches long at both ends, do your routing on a rough blank, and then cut the ends to length. Trimming as a final step allows you to remove problem areas and send them to the scrap bin.

Sometimes, however, there's no board length to spare. When trimming to size isn't an option, use the following techniques to improve your routing results.

- Clamp the workpiece securely to a bench or other support, and use both hands to control the router.
- Make sure the bit enters the material at full speed, and concentrate on keeping the router base flat on the board face.
- If your workpiece is too narrow to support the router base, create a more stable surface by clamping another board next to it.
- When possible, use a router table with a fence (see our Router Table project in our Summer 2006 issue).

PHOTOGRAPHY BY PADEN REICH/SPC

FINISHED DIMENSIONS
HEIGHT
24 inches
DEPTH
5½ inches
WIDTH
24 inches

Display Case

Show off a special collection with this clear-fronted accent piece.

PHOTOGRAPHY BY BRIAN FRANCIS/STYLING BY ANN CAROTHERS/PADEN REICH/SPC

This simple project has movable shelves and an acrylic insert to house and protect decorative objects.

Instructions:

GENERAL: Cut and label all the parts as needed, using the Cut List as a guide and adjusting for fit.

1 PREPARE THE SIDES, TOP, BOTTOM, AND NOSING

a. Cut a ⅛-inch-wide by ⅜-inch-deep groove along the inside face of each 8-foot-long 1 x 6, positioning it ⅜ inch in from one edge.
b. Then cut a ¼-inch-wide by ⅜-inch-deep groove along the opposite edge of the inside face of each 1 x 6, again positioning it ⅜ inch in from the edge.
c. Cut a 30-inch-long piece from one 1 x 6, and set it aside to be used for the **(05)** top and **(06)** nosing.
d. Test-fit the **(09)** front and the **(07)** back in the pieces' respective grooves. The plywood should fit snugly in its groove for the back, while the acrylic should slide freely. Widen the ⅛-inch groove if needed for the **(09)** front. However, do not widen the groove in the 30-inch piece from Step 1c.
e. From the remaining grooved 1 x 6, miter cut the **(01)** sides and **(02)** bottom so that they all measure 24 inches from long point to long point.
f. To make the **(06)** nosing and the **(05)** top, miter cut the 30-inch piece from Step 1c to measure 24 inches from long point to long point. Then rip a ¾-inch-wide strip from the side that has the ⅛-inch groove.

2 ATTACH THE CLEATS AND FILLERS

a. Rip the ¼ x 6s to a width of 4¼ inches.
b. Place the three boards on top of each other, and then clamp or tack the pieces together. Cut and label 8 pairs of **(03)** cleats, each measuring 2 inches wide, from the ¼- x 4¼-inch boards. As you cut them, number each pair of **(03)** cleats 1 through 8. Set aside the remaining portion, which you will cut to size later for the **(04)** fillers.

Good To Know

We recommend the ColdHeat Freestyle Cordless Glue Gun found in the hardware department. Although the glue is warm, the tip remains cool, so it's even safe for kids' projects.

SKILL SET

Project Part Spacing

Exact spacing is key when you're working with duplicate project parts such as the **(03)** cleats that support the **(08)** shelves in this project. The scrap wood accumulating in your shop can be used to create spacers that will help keep project parts spaced apart based on desired dimensions. Position the first part per the project instructions, determine the required space between each piece, and use the spacer to lay out each sequential part.

It's best to follow these steps during the same work session, rather than starting them in one and finishing in another. Doing everything at once will improve consistency and accuracy in the spacing of the project parts.

Figure 1

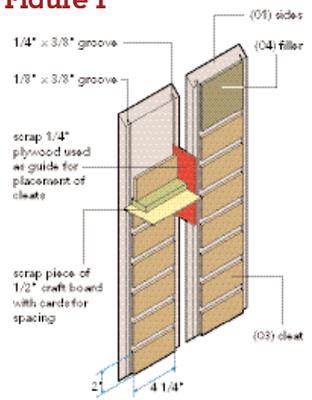


Figure 2

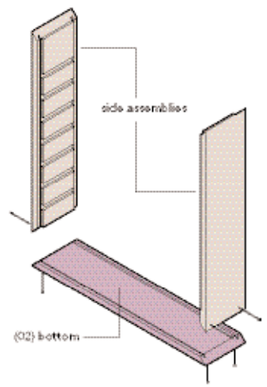
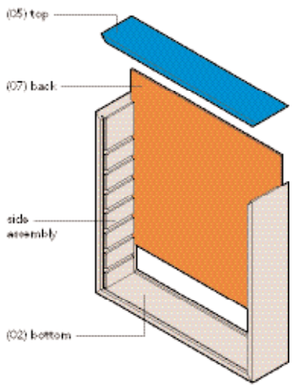
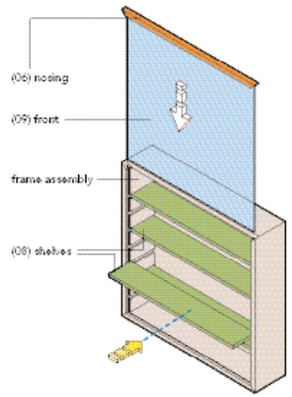


Figure 3





TOOLS YOU'LL USE

TABLE SAW

- TABLE SAW WITH DADO BLADE
- MITER SAW (OR HANDSAW WITH MITER BOX)

MITER SAW

- POWER SANDER AND VARIOUS SANDPAPER GRITS
- PNEUMATIC NAILER (OR HAMMER)

POWER SANDER

- HOT-GLUE GUN
- CAULKING GUN
- FRAMING SQUARE
- CLAMPS
- TAPE MEASURE

PNEUMATIC NAILER

- INDEX CARDS
- PENCIL

c. Lay the two **(01)** sides with the grooves facing up on a work surface, and then butt the edges that have the ¼-inch grooves up against each other.
d. Insert a scrap piece of plywood in the ¼-inch groove on one of the **(01)** sides. Spread glue onto the back of one **(03)** cleat from the first pair. Position this **(03)** cleat against the plywood so that its bottom edge is flush with the inside edge of the mitered corner on the **(01)** side. Secure the **(03)** cleat with ¾-inch brads. Repeat this procedure for the opposite **(01)** side using the other **(03)** cleat from the first pair.
e. Slide the scrap piece of plywood so that it will align with the next set of **(03)** cleats. To leave a groove for the **(08)** shelves, press a scrap piece of ½-inch stock and additional material, such as three index cards, against the first **(03)** cleat. The stock provides a snug fit for the **(08)** shelves, while the index cards leave a uniform amount of space for each shelf. Apply glue to the back of the second **(03)** cleat, position it, and secure it with brads. Repeat this procedure for the remaining **(03)** cleats on both **(01)** sides.
f. Using the material set aside from cutting the **(03)** cleats, create the **(04)** fillers by cutting them to size so that the top edge of each **(04)** filler fits flush with the inside of the mitered corner when spaced in the same manner as the **(03)** cleats.

3 ASSEMBLE THE BOX

a. Attach the **(01)** sides to the **(02)** bottom using wood glue and 4d finishing nails as shown in Figure 2.
b. Slide the **(07)** back into the ¼-inch grooves in the **(01)** sides and **(02)** bottom.
c. Clamp a framing square to the frame assembly to keep it square. Attach the **(05)** top with wood glue and 4d finishing nails.
d. Lay the frame assembly on a work surface with the **(07)** back facing up. Apply hot glue around the perimeter of the **(07)** back where it touches the **(01)** sides, **(05)** top, and **(02)** bottom.
e. Apply a finish to the **(06)** nosing before attaching it to the acrylic sheet. Be sure to keep the finish out of the ⅛-inch groove.
f. Run a bead of silicone inside the ⅛-inch groove on the **(06)** nosing. Center the **(06)** nosing on the acrylic sheet, and press the acrylic sheet into the groove. Remove any excess silicone, and then let it harden. Lift the assembly by the **(06)** nosing to test the hold. If needed, apply a bead of silicone on both sides of the acrylic sheet where it touches the **(06)** nosing.
g. Attach appropriate wall fasteners to the back of the **(05)** top. For more details on which wall fasteners to use for your situation, see Put It Together on page 16.
h. Position the **(08)** shelves as desired.

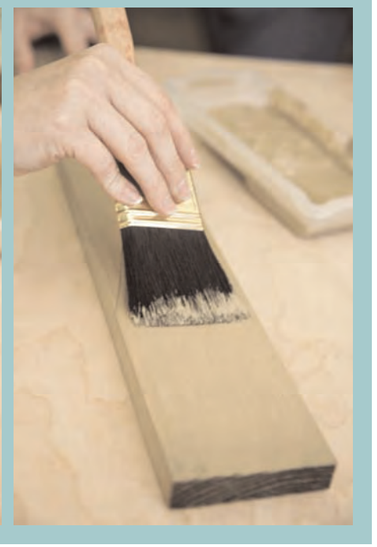
4 APPLY A FINISH

a. Fill all holes with stainable wood filler. Sand, and apply the desired finish.
b. To fill the grain of the oak when staining, apply a coat of stain, and sand again while wet. This forms a slurry that will fill most of the wood grain. Stain again until the desired hue is reached, and apply a coat of paste wax or polyurethane when dry.

SKILL SET

Finish Application

Several instruments can be used when applying a finish to a project, but rollers and paintbrushes are the most common. Rollers can apply a smooth, uniform finish without brush marks, but they may need to be replaced frequently. You also will need to use a tray to serve as a reservoir for your finish and as a means of getting the finish onto the roller. Paintbrushes can last longer than rollers, provided they are cleaned and stored properly. If you're after the optimum finish, choose natural bristles for oil-based finishes and synthetic bristles for water-based finishes. To make it easier to clean rollers and paintbrushes when you're done applying paint or stain, pre-condition the brush before use. To do this, simply dip the bristles in the thinner or solvent for your chosen finish before you start: water for water-based finishes and mineral spirits for oil-based finishes.



Cut List

#	PART NAME	QUANTITY	MATERIAL	SIZE (in inches)
01	sides	2	1 x 6	¾ x 5½ x 24*
02	bottom	1	1 x 6	¾ x 5½ x 24*
03	cleats	16	¼ x 6	¼ x 2 x 4¼
04	fillers	2	¼ x 6	¼ x 4¼ x 4³⁄₁₆
05	top	1	1 x 6	¾ x 4¹¹⁄₁₆ x 24
06	nosing	1	1 x 6	¾ x ¾ x 24**
07	back	1	¼-inch plywood	¼ x 23 x 23
08	shelves	4	½ x 6	½ x 4¼ x 22⅜
09	front	1	acrylic sheet	⅛ x 23⅛ x 23⅛

*Measure length from long point to long point.
Cut from the **(05) top.

Lowe's List

PROJECT #WWin071

LUMBER*

- ☐ 3 (2-foot-long) ¼ x 6s, oak or poplar**
- ☐ 4 (2-foot-long) ½ x 6s, oak or poplar**
- ☐ 2 (8-foot-long) 1 x 6s, oak or poplar**
- ☐ 1 (24- x 48-inch) sheet of ¼-inch birch plywood

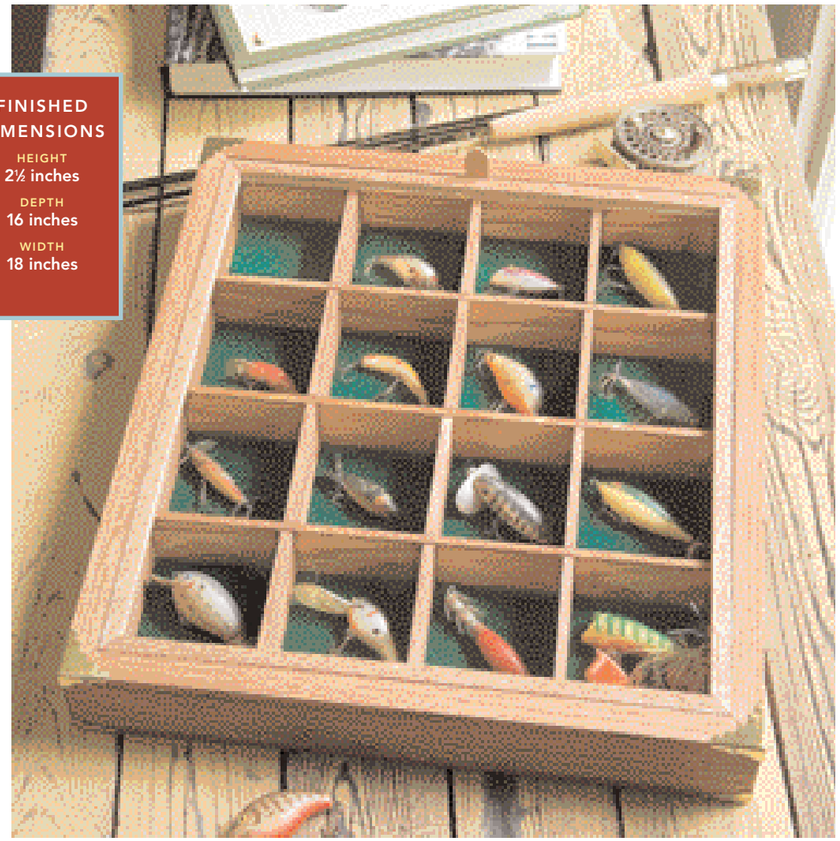
HARDWARE & SUPPLIES

- ☐ 1 (23⅛- x 23⅛-inch) acrylic sheet
- ☐ 1 box 4d finishing nails
- ☐ 1 box (#18 x ¾-inch) wire brads
- ☐ wood glue (Titebond III)
- ☐ stainable wood filler
- ☐ hot glue
- ☐ silicone caulk
- ☐ appropriate wall fasteners
- ☐ paintbrush or roller
- ☐ 1 quart Olympic Special Walnut stain (or paint)
- ☐ paste wax or polyurethane

*Availability varies by market.
**We recommend oak if you plan to stain this project, or poplar if you plan to paint it.

Presentation Box

Craft a great gift for that special collector in your life.



FINISHED DIMENSIONS
HEIGHT
2½ inches
DEPTH
16 inches
WIDTH
18 inches

TOOLS YOU'LL USE


TABLE SAW


MITER SAW


ROUTER


POWER SANDER


PNEUMATIC NAILER

- TABLE SAW WITH A ¼-INCH DADO BLADE
- MITER SAW (OR HAND-SAW WITH MITER BOX)
- ROUTER WITH A ¼-INCH RABBETING BIT
- POWER SANDER AND VARIOUS GRITS OF SANDPAPER
- PNEUMATIC NAILER (OR HAMMER)
- CAULKING GUN
- FRAMING SQUARE
- UTILITY KNIFE
- CORNER CLAMPS
- SPRAY ADHESIVE (IF USING FELT)
- TAPE MEASURE
- PENCIL

This stylish box makes an attractive showcase for your collectibles. It also can be used as a tabletop display case for decorative items that need a home. As a gift, this simple, but elegantly designed, project is sure to please any collector who needs more room for his or her treasures.

Instructions:

GENERAL: Cut and label the parts as needed, using the Cut List as a guide and adjusting for fit. Do not cut lid trim pieces to size until indicated in Step 3.

1 BUILD THE BOX

a. Using a router fitted with a ¼-inch rabbeting bit, cut a ¼-inch rabbet along the bottom inside edge of each of the **(01)** long sides and **(02)** short sides.

b. Assemble the **(01)** long sides and the **(02)** short sides for the box, using glue and 4d finishing nails. Check for square as you go, using corner clamps.

SKILL SET

Gang Cutting

Save time and improve accuracy by cutting several pieces at the same time. First, make a few test cuts to ensure your table saw blade is set up accurately. Then temporarily attach the project parts, make sure they are positioned evenly, and cut them together.

c. Stain or paint the side assembly prior to attaching the **(03)** bottom or adding felt. Measure and cut the **(03)** bottom to size from ¼-inch plywood. Attach the **(03)** bottom to the side assembly with glue and ¾-inch brads. If adding felt, attach it to the **(03)** bottom using spray adhesive before attaching the **(03)** bottom to the side assembly.

2 BUILD THE GRID

a. Measure the inside dimensions of the box, adjusting the dimensions for the **(04)** long grids and **(05)** short grids as needed.

b. Lay out and mark notches in the grid pieces. Be sure that you adjust the distance between the notches if you altered the size of the grid pieces.

c. Sort the **(04)** long grids and **(05)** short grids into two separate stacks, and wrap masking tape around each stack. Cut the notches with a ¼-inch dado blade mounted in the table saw, using the miter gauge to guide the stacks past the blade. Position a piece of scrap lumber as a backer board between the stack and the miter gauge to prevent tear-out.

d. Apply a finish to the grid parts. When dry, assemble the grid without glue.

3 BUILD THE LID

a. Beginning with the ½ x 2 stock, cut a ⅛-inch-wide by ¼-inch-deep kerf centered along both ½-inch edges of the board. Check the fit of the acrylic sheet, enlarging the slots if necessary.

NOTE: Apply masking tape to the ½-inch edge before cutting the kerf, and remove after assembly. This keeps the silicone caulk (used to secure the acrylic sheet to the trim) off the wood.

b. Rip ½-inch-wide strips from the kerfed board to create the **(06)** long trim and **(07)** short trim.

c. Miter cut the trim to measure 1/16 inch shorter than the inside dimensions of the box.

d. Cut the **(08)** acrylic sheet to size for the lid with a utility knife, using a framing square as a straightedge.

e. Apply the desired finish to the trim, and allow to dry. Apply glue to the mitered corners. Also run a small bead of silicone caulk into the trim kerfs.

f. Assemble the lid, and firmly wrap tape around the four corners to secure the parts while the glue and the caulk dry.

g. Cut a tab from leather or a piece of heavy fabric to use as a handle for removing the lid (see "Web for More" below). Secure the tab to the lid assembly with glue or silicone caulk.

4 APPLY FINAL TOUCHES

a. Fill holes with stainable wood filler, and sand the project.

b. Apply the desired finish. If staining the project, attach brass corners using the hardware provided by the manufacturer.

Cut List

#	PART NAME	QUANTITY	MATERIAL	SIZE (in inches)
BOX				
01	long sides	2	1 x 3	¾ x 2½ x 18*
02	short sides	2	1 x 3	¾ x 2½ x 16*
03	bottom	1	plywood	¼ x 15 x 17
GRID				
04	long grids	5	¼ x 4	¼ x 1¾ x 16½
05	short grids	5	¼ x 4	¼ x 1¾ x 14½
LID				
06	long trim	2	½ x 2	½ x ½ x 16⅞*
07	short trim	2	½ x 2	½ x ½ x 14⅞*
08	acrylic sheet	1	clear acrylic sheet	⅛ x 13 15/16 x 15 15/16

*Measure length from long point to long point.

Lowe's List

PROJECT #WWin072

LUMBER*

- ☐ 1 (4-foot-long) ½ x 2, poplar or oak**
- ☐ 3 (4-foot-long) ¼ x 4s, poplar or oak**
- ☐ 1 (6-foot-long) 1 x 3, poplar or oak**
- ☐ 1 (24- x 24-inch) sheet of ¼-inch birch plywood

HARDWARE & SUPPLIES

- ☐ 1 box 4d finishing nails
- ☐ 1 box (#18 x ¾-inch) wire brads
- ☐ 1 (⅛- x 18- x 24-inch) clear acrylic sheet
- ☐ 8 (⅞- x 1¾-inch) brass corners
- ☐ 1 (½- x 1⅜-inch) piece of leather or heavy fabric
- ☐ felt (optional)
- ☐ wood glue (Titebond III)
- ☐ stainable wood filler
- ☐ silicone caulk
- ☐ masking tape
- ☐ 1 quart Valspar Interior Latex High Hiding Primer
- ☐ 1 quart Valspar Ultra Premium, Coventry Blue 4005-5C, semi-gloss
- ☐ 1 quart Valspar Ultra Premium, Blue Raindrop 4005-5A, semi-gloss
- ☐ 1 quart Olympic Red Mahogany stain (for stained version only)

*Availability varies by market.

**We recommend poplar if you plan to paint this project, or oak if you plan to stain it.

web FOR MORE Detailed illustrations for assembly, layouts for the grid parts, and a pattern for the tab are online at **LowesCreativeIdeas.com/Woodworkers.**

PHOTOGRAPHY BY BRIAN FRANCIS/STYLING BY MISSIE NEVILLE CRAWFORD

Lazy Susan

Think outside the box with this classic tabletop addition.

FINISHED DIMENSIONS

HEIGHT
4¼ inches

DEPTH
18 inches

WIDTH
18 inches

When it's time to pass the condiments, this centerpiece is sure to please your dinner guests. The sturdy, rotating design also is a perfect organizer for kitchen cabinets with hard-to-reach corners. We've simplified this project for the beginning woodworker, using round edge-glued panels and a lazy Susan bearing to make this project an easy-to-build gift.

TOOLS YOU'LL USE

JIGSAW

POWER SANDER

DRILL/DRIVER

- JIGSAW
- HANDSAW WITH MITER BOX
- POWER SANDER AND VARIOUS GRITS OF SANDPAPER
- DRILL/DRIVER WITH #10 COUNTERSINK BIT
- HAMMER
- FRAMING SQUARE
- TAPE MEASURE
- PENCIL

STYLING BY PADEN REICH/SPC

Instructions:

GENERAL: Cut and label parts as needed, using the Cut List as a guide and adjusting for fit.

1 SCRIBE THE CUT LINES

a. Locate and mark the center of two round edge-glued panels (see "Skill Set"). Nail a brad at the center of both panels, leaving ¾ inch of the brad exposed.

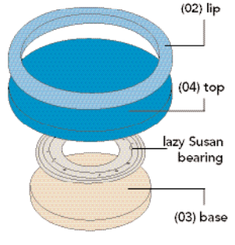
b. Scribe a centerline lengthwise along the **(01)** beam, and drill a 3/32-inch hole on the centerline ½ inch from one end of the board. Then drill two ⅛-inch holes on the centerline—the first located 6⅝ inches from the first hole and the second at 7⅝ inches.

c. On one round panel, align the 3/32-inch hole in the **(01)** beam with the brad in the center of the panel.

d. Place a pencil in each ⅛-inch hole, and pivot the **(01)** beam on the brad in the panel's center to distinctly mark two circles around its circumference.

e. Use the second round panel with the brad in the center for the **(04)** top. Align the 3/32-inch hole in the **(01)** beam with the brad, and place a pencil in the hole drilled at 7⅝ inches in the **(01)** beam. Pivot the **(01)** beam on the brad to scribe the circle around the circumference of the panel.

Figure 1



SKILL SET

Finding a Circle's Center

Position a framing square a couple inches above a circle's bottom edge, and scribe a line across its width (1). At both points where this horizontal line touches the edge of the circle, draw a perpendicular line that extends to the top edge of the circle.

Beginning where the perpendicular lines touch the top edge of the circle, draw two diagonal lines that extend to the circle's bottom edge (2, 3). The center of the circle is at the intersection of the diagonal lines (4).

2 CREATE THE LIP AND BASE

a. Drill a ½-inch hole between the two circles scribed on the first round panel.

b. Using a jigsaw, cut along the outer circle to create the **(02)** lip.

c. Cut along the inner circle with a jigsaw to create the **(03)** base.

d. Sand the edges of the **(02)** lip and **(03)** base.

3 ATTACH THE LIP, BASE, AND LAZY SUSAN BEARING

a. Align the inside edge of the **(02)** lip with the circle scribed on the **(04)** top (see Figure 1). Attach the **(02)** lip to the **(04)** top using glue and 4d finishing nails spaced 2 to 3 inches apart.

b. Following the manufacturer's instructions that are included with the lazy Susan bearing, attach the bearing to the **(03)** base and the **(04)** top. Use #6 wood screws to attach the lazy Susan bearing to the **(03)** base, and then use #8 metal screws to attach the bearing to the **(04)** top. Countersink the #8 screws ⅛ inch deep.

4 APPLY A FINISH

a. Fill all holes with stainable wood filler, and then sand the entire piece smooth.

b. Apply your finish as desired, and allow to dry.

Lowe's List

PROJECT #WWin073

LUMBER

- ☐ 2 (¾- x 18-inch) round edge-glued panels
- ☐ 1 (2-foot long) ¼ x 2

HARDWARE & SUPPLIES

- ☐ 1 (12-inch) lazy Susan bearing
- ☐ 1 box 4d finishing nails
- ☐ 1 package (#6 x 1-inch) wood screws
- ☐ 1 package (#8 x 1¼-inch) metal screws
- ☐ 1 box (#17 x 1-inch) wire brads
- ☐ stainable wood filler
- ☐ wood glue (Titebond III)
- ☐ 1 quart Valspar Interior Latex High Hiding Primer and 1 quart paint (Valspar Signature Colors, Martha Stewart Colors, Cardamom MS244, semi-gloss)

OR

- ☐ 1 quart stain (Olympic, Special Walnut)

Cut List

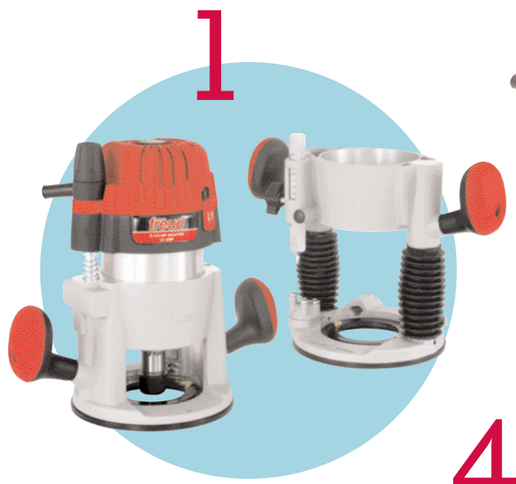
#	PART NAME	QTY.	MATERIAL	SIZE (in inches)
01	beam	1	¼ x 2	¼ x 2 x 12*
02	lip	1	panel	1¼ x 2¾ x 18
03	base	1	panel	1¼ x 13¼ x 13¼
04	top	1	panel	1¼ x 18 x 18

*Not part of finished project.

PHOTOGRAPHY BY HOWARD LEE PUCKETT

The Gift of Gear

Wrap up these tools for a special woodworker this Christmas.



1. Freud 2¼-hp fixed- and plunge-base router kit (#273209)
» **WHAT IT DOES:** powerful and durable with 13 amps to tackle the toughest jobs; sealed electronics for maximum life; easy and precise with one-handed bit changes and accurate 1/128-inch adjustments in table-mounted applications

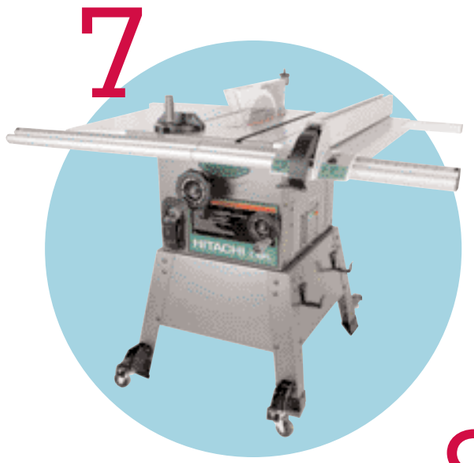
2. Porter Cable 2½-inch x 14-inch compact belt sander (#254907)
» **WHAT IT DOES:** makes finishing work much faster and does a more complete job than hand sanding; design allows for one-handed use in a variety of positions; flush side enables sanding adjacent to perpendicular surfaces

3. Delta 10-inch left-tilt contractor's saw (#237665)
» **WHAT IT DOES:** features a left-tilting blade (away from the fence) to prevent tear-out on the outside corners of mitered joints; accommodates multiple fences and features a mobile base; cast-iron blade carriage that mounts directly to the cast-iron tabletop for precision and minimal vibration

4. Hitachi 2¼-hp router kit (#117513)
» **WHAT IT DOES:** one of the most versatile tools in the shop; accepts both ¼- and ½-inch bits to handle even the toughest cabinetry joinery tasks; electronic speed control to maintain bit speed during the most demanding jobs

5. Shop-Vac 5.5 peak-hp 12-gallon detachable blower vac (#142518)
» **WHAT IT DOES:** keeps workshop, patio, driveway, and walkway neat; removes sawdust from work area

6. Kobalt 27-inch stainless steel chest and cabinet (#33959, #34473)
» **WHAT IT DOES:** organizes hand tools in style; mobile base allows maneuverability throughout the shop



7. Hitachi 10-inch table saw (#159372)
» **WHAT IT DOES:** the heavy-duty center of the workshop; great for ripping (cutting lengthwise along a board), as well as making smaller and angled cuts; improves accuracy with a tabletop angle scale and a micro adjustment on the fence

8. Hitachi 12-inch sliding compound miter saw (#118985)
» **WHAT IT DOES:** makes straight crosscuts or angled cuts, including miters; sliding action, 15-amp motor and 12-inch blade help with large, tough cutting jobs

Stocking Stuffers

Small tools to round out the shop.

Dremel two-speed MultiPro kit (#94681)
» **WHAT IT DOES:** helps in personalizing projects by carving, cutting, and sanding detailed parts; perfect for smaller jobs that conventional rotary power tools can't touch

Black & Decker 8-inch automatic adjustable wrench (#238339)
» **WHAT IT DOES:** with the push of a button, automatically adjusts to any size nut or bolt up to 1¼ inches; offers maximum torque of 220 foot /pounds; great for tight areas when assembling projects

Kobalt 25-foot and 16-foot chrome measuring tape pack (#258301)
» **WHAT IT DOES:** used for measuring and marking; attractive and durable chrome finish

Black & Decker 3.6-volt cordless power scissors (#171397)
» **WHAT IT DOES:** power cutting allows the tool to do the work for you; can be used on fabric, cardboard, paper, tarp, canvas, vinyl and more; features an ergonomic design and comfort grip

Know Your Grains

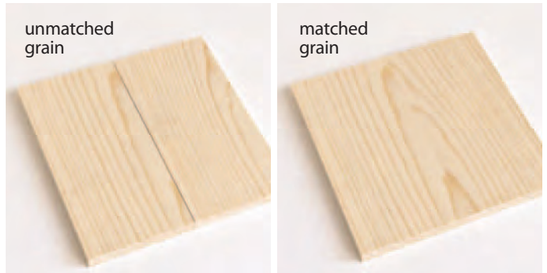
Choose lumber carefully for the best results.

Selecting lumber is a skill that is just as important as cutting it. Because no two boards are alike, each project you build will be one of a kind. On the other hand, when you want the individual boards in a piece to match in appearance, the unique character of wood can seem more obstacle than asset.

Go With the Grain

There are two fundamentals to help explain why boards look differently. The first is the distribution of the annual growth rings in the tree, and the second is the orientation of the board as it's sawn from the log. Together these two factors create the varying patterns that are commonly called grain, although a more accurate term used by woodworkers is figure.

Alternating light and dark rings in a log mark each growing season, creating a specific pattern on the flat surface of a board once it has been cut. Dark rings—generally spaced far apart—form large, sweeping arches located near the center in a pattern known as cathedral figure. Vertical grain, toward the outer edges, shows up as straight lines closely spaced together.



Even though arched patterns are hard to match, this look can be achieved through careful attention when selecting lumber. Notice the unmatched grain pattern on the left and how it compares to the visually appealing matched pattern on the right.

Mix and Match

Now that you know about wood grains, you can visit the lumber aisle at Lowe's for some practice. Radiata pine is good lumber to start with because it has distinct growth rings and patterns. When picking out boards, first look for those with similar color, and then narrow your selections based on the grain patterns.

Begin by holding two boards edge to edge; you will soon discover that matching straight linear patterns is easiest. Arched patterns are difficult to align—even with boards that are cut from the same log. You can incorporate both grains in your project, but it is easier to create seamless, nice-looking joints when linear figures are near the edges of the boards.

PHOTOGRAPHY BY PADEN REICH/SPC

Wall Fasteners

Support your wall-worthy projects with the right anchor.

Whether it's for the Display Case from page 4 or another project you design yourself, odds are that some of the things you build are destined to hang on a wall. In a perfect world, there would be wall studs right where you need them and you would just have to drive in a few screws. But in most cases, you will probably have to do a little preparation before hanging your handiwork.

Light-Duty Support

Screw-in anchors, such as the Cobra WallDriller shown at left, feature coarse, deep threads that grip into the wallboard core. This particular type has a center hole designed for a #8 screw. A light-duty anchor, these support 15 to 40 pounds and are quickly installed with a screwdriver.

Medium-Duty Grip

The WallGripper, also made by Cobra, has a threaded plastic sheath that drives into the wallboard's gypsum core. When tensioned with a mounting screw (included), the plastic section folds in the center, expands outward so that it is flush against the wall, and anchors the screw in place. The WallGripper generally supports 30 to 50 pounds.

Hollow-Wall Hold

Shown at top left, these sturdy anchors have a center section that collapses against the wall on the inside. Some include a pointed screw that you tap into place with a hammer, rather than drill a pilot hole. Also known as molly bolts, hollow-wall expansion anchors generally support 25 to 75 pounds—a range reflecting limitations of the wall material rather than the fastener itself. Most of these types of fasteners are designed for a limited thickness range, so keep that in mind when you are selecting the right size.

Solid-Wall Bond

For solid masonry—such as brick, concrete, and stone—new options include drive-nail anchors, concrete screws, lag shields, and wedge anchor bolts.

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