# creative ideas VOOQVOILGES



#### Let's build something together

**ow that winter is over,** it's time to break out the lawn and garden tools. Using our Utility Cart, you'll have everything handy for your outdoor chores. Spring also inspires creativity, so we've designed a Desktop Easel to assist the artist, writer, and reader. And finally, we created a project for that

special member of the family—your dog or cat. Pet Steps help small or aging animals climb into large vehicles or reach tall furniture.

Be sure to start your kids off in woodworking with our free Build and Grow Clinics. Locate and sign up for clinics at LowesBuildAndGrow.com.



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How-To

To download project

and How-To plans such

as our Vertical Cutting

Guide, visit us online at

LowesCreativeIdeas.com/

Woodworkers. This project

is useful for vertical and

on-edge cuts. It will be

available online through

May 1, 2008.

**Final Finish** 

Plan

BULD ANDS

Lowe's Let us hear from you! Fill out a guick survey at LowesCreativeIdeas.com/

WWSurvey, and you will have a chance to receive a \$100 Lowe's gift card. Hurry, the survey ends April 11, 2008.



#### CONTRIBUTORS

#### **HUTSON**





for the Utility Cart and Pet Steps in this issue. And as the owner of aging dogs, he also appreciates the importance of providing a helping hand for furry family members.

#### **RICK PETERS**

A seasoned pro when it comes to woodworking, Rick often lends his expertise to



this magazine. He's written 35 do-it-yourself and home improvement books about a wide variety of topics, including furniture-building, electrical work, and power tools.

#### **CHRIS HILL**

Chris put the Vertical Cutting Guide to work when he built



the Desktop Easel featured in this issue. The easel provides a sturdy surface for making project plan notes.

#### Safety Is Your Responsibility

CROW

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# With the Experts at Lowe's

Why does the actual lumber size differ from its stated measurements?

**The stated or nominal** (in name **A** only) size of a board reflects the dimensions after it is cut at the sawmill.

Lumber was sold in its rough-sawn form like this for many decades. But planing mills eventually were developed to dress the boards smooth and square the edges—a process that removed some of the stock. The result is a finished piece with a smaller cross section than the stated dimension. Despite changes in the process, however, the old terminology still is used today.

Nominal Actual 1 x 2 3/4 x 11/2 1 x 3 3/4 x 21/2 1 x 4 34 x 31/2 1 x 6 34 x 51/2 1 x 8 3/4 x 71/4 1 x 10 34 x 91/4 1 x 12 34 x 111/4 2 x 4 1½ x 3½ 4 x 4 3½ x 3½ All measurements in inches.

**Board Size** 

When I cut curves using my band saw, it's hard to keep the blade from twisting and making erratic, uneven cuts. Am I doing something wrong, or is this normal?

The problems you mention are most likely from insufficient blade tension, using the wrong blade, poor blade guide adjustment, or incorrect cutting technique.

Curved cuts usually are easier with a narrow (1/4-inch) blade. If you have been

using a wider resawing blade, swap it out with a narrower size. Be sure that the new blade is sharp, with plenty of set (side clearance) for the teeth. You also will want to make sure that it is tensioned properly before use. If you are unsure about how to do this, con-

> sult vour band saw manual for instructions. When working with stock thicker than 2 inches, you'll want a blade with a relatively coarse teeth-per-inch pattern (fewer than 6 TPI) so that it will be able to clear the cut more aggressively without loading.

Next, lower the upper guide post so that you can position the blade guides slightly above the thickness of your workpiece. Adjust the side guides

and the thrust bearing (behind the rear blade edge) so that they are almost touching the blade. You'll want to repeat this process for the lower blade guides. By keeping these clearances snug, your blade is less likely to twist and drift when you're making cuts with vour band saw.

Finally, before cutting the contour of your workpiece, make a few relief cuts in the places where the curves are tightest. This technique allows the extra stock from your workpiece to break free, instantly relieving some of the side pressure on the blade.

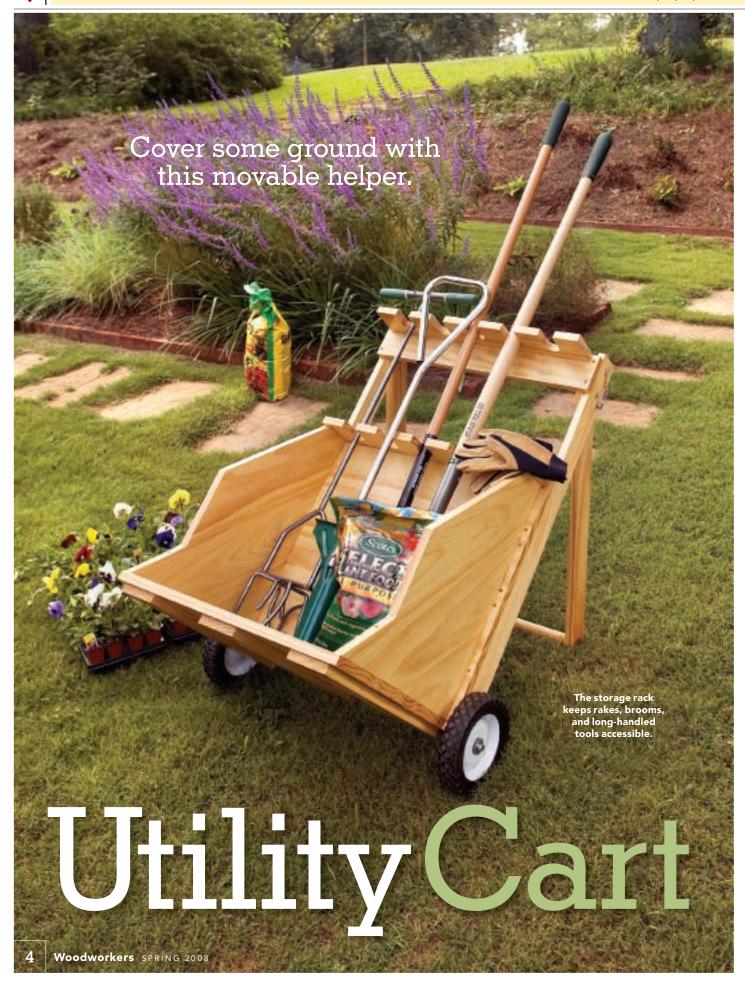


How do I know when to replace a power tool? And should I test new tools before using them?

**To determine whether** a tool needs to be replaced, you'll first want to look for obvious damage or wear from normal use. Other signs that a tool needs to be repaired or replaced include a cracked housing, a bent arbor, or exposed electrical wiring, Odd noises, smells, or excessive vibration can signal bearing failure, brush wear, or other problems. And even though electrical switches are notorious for failing, the repairs usually are inexpensive. But unless you know your way around the inner workings of a tool, it's best to have a certified repair center evaluate it. You'll probably want to buy a replacement if the repair is going to cost more than half the price of a new model.

If you use a tool frequently, it might make sense to replace the battery with a lithium-ion battery. It's a great way to upgrade—lithium-ion batteries are more powerful, hold a charge longer, and weigh less. Before using a new tool, check that it's working properly, and make sure factory-supplied fasteners and hardware are tight enough for use.





his utility cart features a stout frame with a folding handle that doubles as a support stand. A built-in storage rack keeps garden tools steady, and the oversized bin can take on big loads with ease. Large wheels allow you to move the cart in various conditions and terrain.

#### Instructions:

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

#### **■** PREPARE THE HANDLE ASSEMBLY

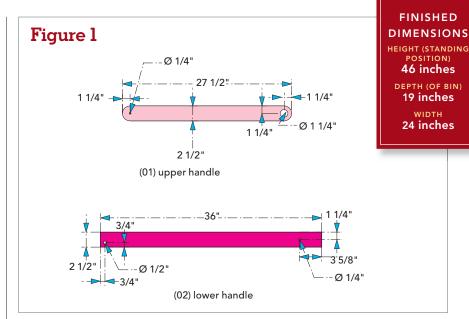
- a. Lay out and cut the (01) upper handles and the (02) lower handles as shown in Figure 1. These parts are ripped from 1 x 4 stock.
- **b.** Drill the holes for assembly and for the dowel as shown in Figure 1.
- c. Attach each (01) upper handle to each (02) lower handle by placing a 1/4inch washer between the parts and securing them with carriage bolts and lock nuts as shown in Figure 2. Tighten lock nuts to remove slack while still allowing the (01) upper handle to pivot freely.

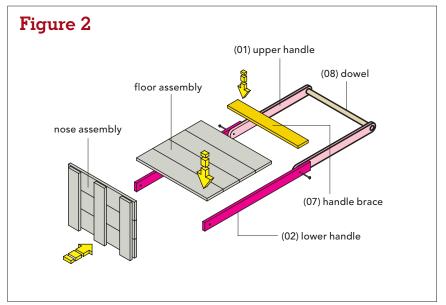
#### **↑** PREPARE THE **▲** FLOOR ASSEMBLY

- a. Lay the (03) floor boards face down on a work surface, and mark a centerline across all four boards perpendicular to the long edges (see Figure 3).
- **b.** To determine the placement of the center (04) floor brace, measure 13/4 inches from the centerline, and draw a parallel line across all of the (03) floor boards. This will be the location for the edge of the center (04) floor brace.
- c. To determine the placements of the two outer (04) floor braces, measure in 1½ inches from the ends of the boards. and then draw a pair of lines parallel to the centerline.
- **d.** Align the edges of the **(04)** floor braces to the lines you marked on the (03) floor boards, and attach them with glue and 11/4-inch screws.



Go to LowesCreativeIdeas.com/ Woodworkers to download the Cutting Diagram for this project.







- AND 11/2-INCH SPADE BITS
- ♦ POWER SANDER AND **VARIOUS GRITS OF** SANDPAPER

STRAIGHTEDGE GUIDE)

◆ BAND SAW (OR JIGSAW)

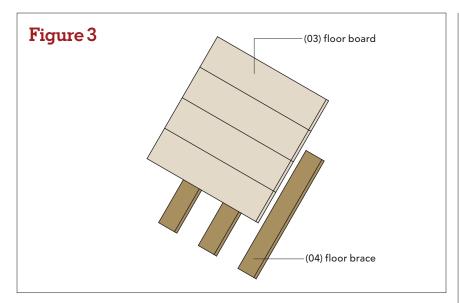
WITH MITER BOX)

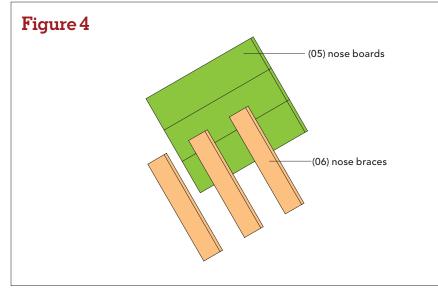
♦ MITER SAW (OR HANDSAW

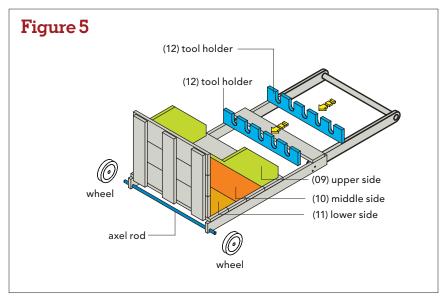
- ◆ HACKSAW
- ♦ FRAMING SQUARE
- **◆ TAPE MEASURE**
- ♦ PENCIL

6







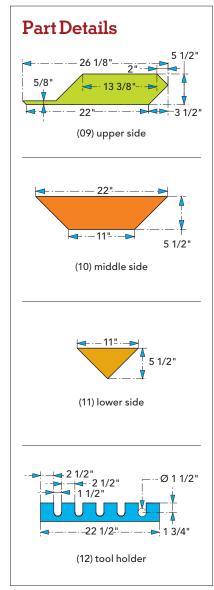


#### 3 COMPLETE THE NOSE ASSEMBLY

- **a.** Repeat the layout instructions in Steps 2a–c for the **(05)** nose boards and the **(06)** nose braces. (See Figure 4.)
- **b.** Attach the **(06)** nose braces as described in Step 2d; however, the **(06)** nose braces should overhang the bottom **(05)** nose board by ¾ inch.

#### 4 CONNECT THE FLOOR AND NOSE ASSEMBLIES

- **a.** On a flat work surface, position the handle assembly as shown in Figure 2.
- **b.** Attach the floor assembly to the **(02)** lower handles using glue and 1½-inch screws. Make sure that the ends and the sides are flush.



- **c.** Attach the nose assembly to the floor assembly by driving 1½-inch screws through the **(06)** nose braces and into the edge of the floor assembly.
- **d.** Position the **(07)** handle brace flush with the ends and the sides of the **(02)** lower handle, and attach it with glue and  $1\frac{1}{4}$ -inch screws.
- **e.** Attach the **(08)** dowel to the **(01)** upper handles with glue.

#### 5 ADD THE SIDES, TOOL HOLDERS, AXEL ROD, AND WHEELS

- **a.** Lay out the **(09)** upper sides, **(10)** middle sides, **(11)** lower sides, and the **(12)** tool holders as shown in the Part Details, and cut them to shape. Test-fit all parts, and adjust if necessary.
- **b.** Position all of the side pieces between the floor assembly and the nose assembly per Figure 5, and attach them with glue and 11/4-inch screws.

SKILL SET

# Fitting Angled Parts If your angles are not perfect in this project, you can end up with large gaps between the sides and the floor and nose assemblies. When working with angled parts, be sure to test-fit before assembly and, if necessary, adjust by scribing and re-cutting the parts.

- **c.** Center one of the **(12)** tool holders on top of the **(09)** upper sides, and attach it with glue and  $1\frac{1}{4}$ -inch screws.
- **d.** Center the remaining (12) tool holder on the (07) handle brace, and attach it with glue and 11/4-inch screws.
- **e.** Thread the axel rod through the holes in the **(02)** lower handles. Place ½-inch washers on the ends of the axel rod followed by the wheels. Mark and cut the axel rod to length with a hacksaw, allowing room for the axel cap nuts.
- **f.** After cutting the axel rod to length, reassemble the axel rod, washers, and wheels, and then press on the two ½-inch axel cap nuts.

#### 6 APPLY FINISHING TOUCHES

- **a.** Stand the cart in the upright position, and lower the handle for the standing position. Clamp it in place.
- **b.** On both sides of the cart, drill a second ¼-inch hole that passes through the **(02)** lower handle and into the **(01)** upper handle. Ream out the hole slightly to allow a carriage bolt to slide freely in and out of the hole.
- **c.** Attach a short length of chain to each **(02)** lower handle with a ½-inch screw, and secure the other end to a carriage bolt using a lock nut. These bolts serve as pins to lock the handle for the cart's standing position.
- **d.** Set all nails, and fill all nail holes. Sand smooth.
- **e.** Apply polyurethane, and let dry.

#### **Good To Know**

Cabot polyurethane and exterior stains help outdoor projects last through wear and tear. Read more about outdoor finishes in Begin With the Wood on page 18.

#### Lowe's List

PROJECT #WSpr081

#### LUMBER\*

- ☐ 4 boards, 1 x 4 x 8
- ☐ 3 boards. 1 x 6 x 8
- ☐ 1 dowel. 1½ x 4

#### HARDWARE & SUPPLIES

- $\square$  1 ( $\frac{1}{2}$  x 36-inch) steel axel rod
- $\square$  2 (8- x 1 $\frac{3}{4}$ -inch) steel wheels
- □ 1 box (1½-inch) screws
- ☐ 1 box (½-inch) screws
- ☐ 1 package (½-inch) axel cap nuts
- $\Box$  4 ( $\frac{1}{4}$  x 2-inch) carriage bolts
- ☐ 4 (¼-inch) hex lock nuts
- ☐ 2 (¼-inch) washers
- ☐ 2 (½-inch) washers
- ☐ 1 box #3 double-loop chain
- $\square$  wood glue (Titebond III)
- $\square$  1 quart polyurethane (Cabot)
- \*Availability varies by market.

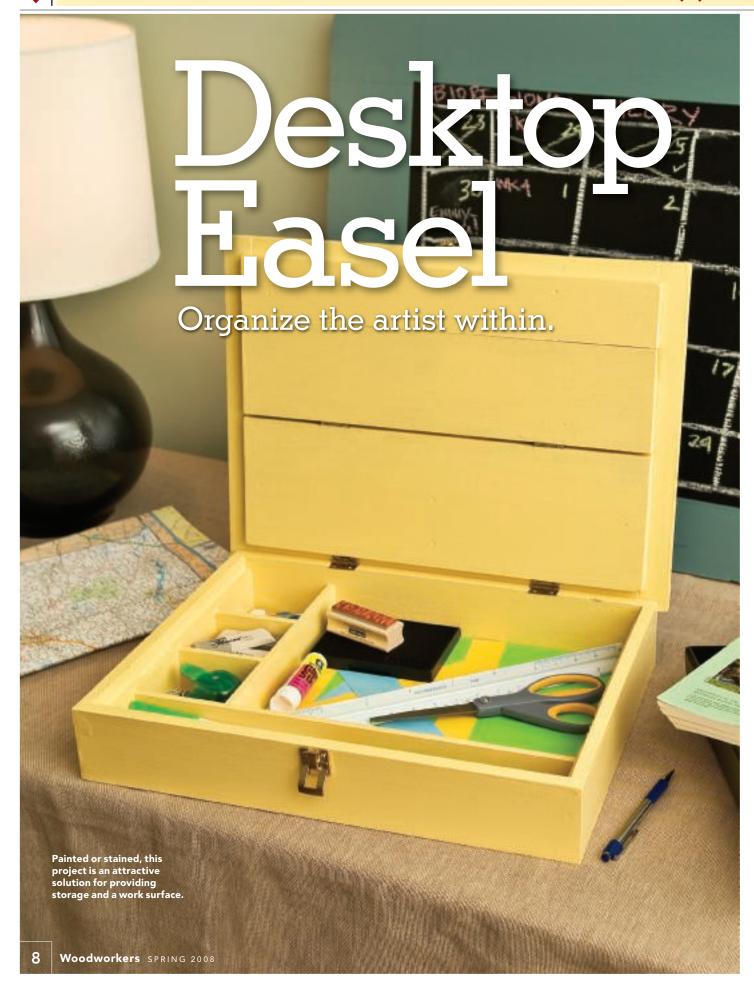
#### **Cut List**

#	PART NAME	QUANTITY	MATERIAL	SIZE (in inches)
01	upper handles	2	1 x 4	<sup>3</sup> / <sub>4</sub> x 2½ x 27½
02	lower handles	2	1 x 4	<sup>3</sup> / <sub>4</sub> x 2½ x 36
03	floor boards	4	1 x 6	<sup>3</sup> / <sub>4</sub> x 5½ x 24
04	floor braces	3	1 x 4	<sup>3</sup> / <sub>4</sub> x 3½ x 21¼
05	nose boards	3	1 x 6	<sup>3</sup> / <sub>4</sub> x 5½ x 22½
06	nose braces	3	1 x 4	<sup>3</sup> / <sub>4</sub> x 3½ x 17
07	handle brace	1	1 x 4	<sup>3</sup> / <sub>4</sub> x 3½ x 24
08	dowel	1	dowel	11/4 x 221/2
09	upper sides	2	1 x 6	<sup>3</sup> / <sub>4</sub> x 5½ x 26½
10	middle sides	2	1 x 6	<sup>3</sup> / <sub>4</sub> x 5½ x 22
11	lower sides	2	1 x 6	³⁄4 x 5½ x 11
12	tool holders	2	1 x 4	<sup>3</sup> / <sub>4</sub> x 3 <sup>1</sup> / <sub>2</sub> x 22 <sup>1</sup> / <sub>2</sub>

Woodworkers SPRING 2008

LowesCreativeIdeas.com/Woodworkers





reat for writing, painting, drawing, or reading, a desktop easel is perfect for homework or crafts. Ours features an adjustable top and compartments for supplies.

#### Instructions:

**GENERAL:** Cut and label the parts as needed, using the Cut List as a guide and adjusting for fit. Attach all parts with wood glue and brads unless otherwise specified.

#### BUILD **I** THE BOX

- a. Cut a 1/4-inch-deep rabbet on each short end and along one long edge of each of the (01) front/back parts and the (02) sides. These parts are ripped from  $\frac{1}{2}$ - x 6-inch stock.
- **b.** Attach both of the (01) front/back parts to both (02) sides with all of the long-edge rabbets facing down as shown in Figure 1.
- c. Cut the (03) bottom to fit the rabbeted area, and attach it to the (01) front/back parts and (02) sides.

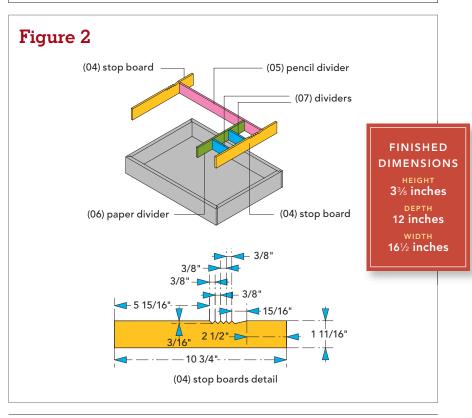
#### CREATE THE **COMPARTMENTS**

The parts in this step are ripped from  $\frac{1}{4}$ - x 6-inch stock.

- a. To create matching notches in the two (04) stop boards, temporarily attach the boards with double-sided carpet tape. Lay out the notches as shown in the (04) stop boards detail in Figure 2, and cut them using a band saw.
- **b.** Assemble and attach all of the divider parts with glue and brads as shown in



#### Figure 1 (02) side (03) bottom (01) front/back (01) front/back (02) side



#### **TOOLS YOU'LL USE**



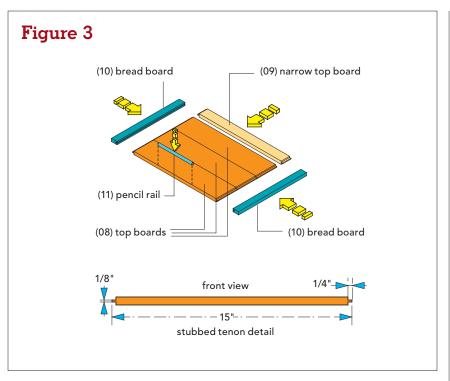






- ◆ TABLE SAW WITH A DADO BLADE
- ♦ BAND SAW (OR HANDSAW)
- ♦ MITER SAW
- ♦ ROUTER WITH A 1/4-INCH RABBETING BIT
- ◆ POWER SANDER AND VARIOUS GRITS OF SANDPAPER
- **◆** CLAMPS
- ◆ PNEUMATIC NAILER (OR HAMMER WITH NAIL SET)
- **◆ TAPE MEASURE**
- ♦ PENCIL





# top assembly (12) top brace (14) pencil cover (12) top brace (14) pencil cover (13) support (13) support (13) support (14) pencil cover (15) top brace (16) pencil cover (17) top brace (18) pencil cover (19) top brace (19) top brace (19) top brace (11) top brace (11) top brace (12) top brace (13) support

Figure 2. You'll use the parts themselves as spacers.

**c.** Attach the divider assembly to the box assembly using glue only.

#### 3 CONSTRUCT THE TOP ASSEMBLY

The (09) narrow top board and the (10) bread boards are ripped from  $\frac{1}{2}$ - x 4-inch stock. The (11) pencil rail is ripped from  $\frac{1}{4}$ - x 6-inch stock.

- **a.** Glue and clamp the **(08)** top boards and **(09)** narrow top board together as shown in Figure 3. Let dry, and sand flat.
- **b.** Cut a %-inch-deep by ¼-inch-wide rabbet on the top and bottom of each short end of the top assembly to form a stubbed tenon. See the stubbed tenon detail in Figure 3.
- **c.** Using a table saw, cut a ½-inch-wide by ¼-inch-deep matching groove that's

#### SKILL SET

#### Stubbed Tenons

You can create stubbed tenons on a table saw fitted with a dado blade. Setup is key. Use a jig, such as our Vertical Cutting Guide (see page 2), to guide the cut. Perform test cuts on scrap wood, adjusting the blade height as needed until the dimension of the tenon is reached. Sand down any remaining saw marks on the finished part.



centered along one long edge of each (10) bread board.

- **d.** Attach the **(10)** bread boards to the top assembly by applying glue inside the groove of each **(10)** bread board, and then clamping the boards to the top assembly. The ends should be flush. Let dry, and then sand flat.
- **e.** Attach the (11) pencil rail centered on and flush with the front top edge of the top assembly as shown in Figure 3.

#### 4 ADD THE SUB-TOP

The (12) top brace is ripped from  $\frac{1}{2}$  x 6-inch stock. The (14) pencil cover is ripped from  $\frac{1}{2}$  x 4-inch stock.

- a. Cut the (12) top brace, (13) support, and (14) pencil cover. Note that each of these parts should be 1/8 inch shorter in length than the measured width of the interior of the box.
- **b.** Refer to the side view in Figure 4 for the location of each piece. Test-fit the parts before assembly.
- **c.** Attach the **(12)** top brace to the top assembly, positioning it ¾ inch in from

#### Lowe's List

PROJECT #WSpr082

#### LUMBER\*

- ☐ 1 board, ¼ x 6 x 4
- $\square$  2 boards,  $\frac{1}{2} \times 4 \times 4$
- ☐ 1 board, ½ x 6 x 4
- $\square$  1 sheet of plywood,  $\frac{1}{4} \times 2 \times 2$

#### HARDWARE & SUPPLIES

- $\Box$  1 box (#18 x  $^{3}$ /4-inch) wire brads
- $\Box$  4 sets ( $\frac{3}{4}$  x 1-inch) hinges
- ☐ 1 snap catch
- $\square$  wood glue (Titebond III)
- $\hfill \square$  paintable wood filler (PL)
- $\hfill\square$  double-sided carpet tape
- ☐ 1 quart Valspar Interior Latex High-Hiding Primer
- ☐ 1 quart Valspar Ultra Premium, Dreamy Caramel 3003-4A, semi-gloss

\*Availability varies by market.



Go to LowesCreativeIdeas.com/ Woodworkers to download the Cutting Diagram for this project. the front edge and centered from side to side

- **d.** Using a table saw, cut a 15-degree bevel along one long edge of the **(13)** support to fit into the notches in the **(04)** stop boards, per the **(13)** support detail in Figure 4.
- **e.** Attach the (13) support to the (12) top brace with hinges as shown in the side view. Make sure that the short edges of the pieces are flush.
- **f.** Position the (14) pencil cover up against the (13) support allowing space

for the (13) support to pivot freely. Center the (14) pencil cover from side to side, and attach it to the top assembly.

#### 5 APPLY FINISHING TOUCHES

- a. Fill all holes, sand, prime, and paint.
- **b.** Attach the completed top assembly to the box with hinges so that it overhangs the front and the sides of the box by ½ inch.
- **c.** Add a snap catch to the back and top assembly.



Cut	List

#	PART NAME	QUANTITY	MATERIAL	SIZE (in inches)
01	front/back	2	½ x 6	½ x 2½ x 16
02	sides	2	½ x 6	½ x 2½ x 11¼
03	bottom	1	plywood	1/4 x 111/4 x 151/2
04	stop boards	2	1/4 × 6	1/4 x 111/16 x 103/
05	pencil divider	1	1/4 × 6	1/4 x 11/2 x 141/2
06	paper divider	1	1/4 × 6	1/4 x 11/2 x 81/4
07	dividers	2	1/4 × 6	1/4 x 11/2 x 3
08	top boards	3	½ x 4	½ x 3½ x 15
09	narrow top board	1	½ x 4	½ x 1½ x 15
10	bread boards	2	½ x 4	½ x 1 x 12
11	pencil rail	1	1/4 × 6	1/4 x 3/8 x 6
12	top brace	1	½ x 6	½ x 4¾ x 14 <sup>7</sup> / <sub>8</sub>
13	support	1	½ x 4	½ x 3½ x 14 <sup>7</sup> / <sub>8</sub>
14	pencil cover	1	½ x 4	½ x 2¼ x 14 <sup>7</sup> / <sub>8</sub>

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# Pet Steps

Offer your dog or cat a leg up with this simple project.

ches and pains can affect us all—including our pets. So for a helpful boost onto the bed or into the family car, build these convenient steps for your family's furry friend.

#### Instructions:

**GENERAL:** Cut and label the parts as needed, using the Cut List and Cutting Diagram on page 14 as guides and

#### SKILL SET

#### **Cutting Plywood**

To prevent chipping when cutting plywood, place painter's tape or masking tape on the cut line. (If your line is drawn dark enough, it will be visible through the tape.) When cutting with a circular saw, place the best side of the plywood down. When cutting on a table saw, place the best side up.



adjusting for fit. All parts are attached with wood glue and 4d finishing nails.

#### **■** ASSEMBLE THE SIDES **L**AND RISERS

- a. Lay out the (01) sides as shown in Figure 1, and cut them accordingly.
- **b.** Attach both the (02) lower riser and the (03) upper riser to the (01) sides as shown in Figure 2.

#### 2 ADD THE BACK BRACE

a. Attach the (04) back brace between the (01) sides so that the piece is flush with the back edges and the bottom of the (01) sides.

#### **ATTACH** THE TREADS

- a. Position the lower (05) tread against the (03) upper riser, with the overhang equal on both sides. There also will be an overhang on the front. Nail the lower (05) tread to the (01) sides and the (02) lower riser as shown in Figure 2.
- **b.** Position the upper (05) tread so that it's flush with the back edges of the (01) sides. Make sure the overhang is equal on the other three sides. Nail the upper (05) tread to the (01) sides and the (03) upper riser as shown in Figure 2.

#### 4 APPLY FINISHING TOUCHES

- a. Set all nails, and fill all holes. Then sand, prime, and paint.
- **b.** Cut sections of doormat or carpet scraps to fit, and attach to the (05) treads using staples. Attach furniture alides to the bottom corners.

#### **TOOLS YOU'LL USE**





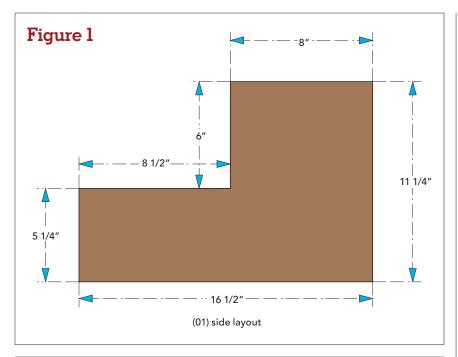


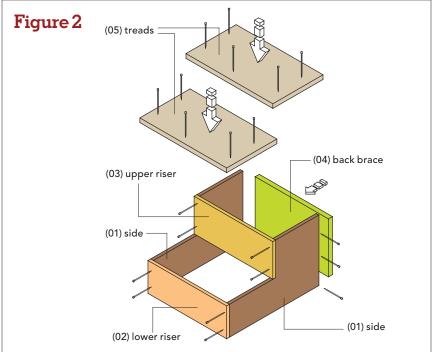
PNEUMATIC NAILER

- ◆ TABLE SAW (OR CIRCULAR SAW OR JIGSAW WITH A STRAIGHTEDGE
- ♦ POWER SANDER AND VARIOUS GRITS OF SANDPAPER
- ◆ PNEUMATIC NAILER (OR HAMMER WITH NAIL SET)
- STAPLE GUN
- **♦ FRAMING SQUARE**
- **◆ TAPE MEASURE**
- **◆ PENCIL**









Cut List						
#	PART NAME	QUANTITY	MATERIAL	SIZE (in inches)		
01	sides	2	plywood	½ x 11¼ x 16½		
02	lower riser	1	plywood	½ x 5¼ x 14½		
03	upper riser	1	plywood	½ x 6 x 14½		
04	back brace	1	1 x 10	<sup>3</sup> / <sub>4</sub> x 9 <sup>1</sup> / <sub>4</sub> x 13 <sup>1</sup> / <sub>2</sub>		
05	treads	2	1 x 10	<sup>3</sup> / <sub>4</sub> x 9 <sup>1</sup> / <sub>4</sub> x 16		

#### **Cutting Diagram** (01) side (01) side (03) upper riser (02) lower riser 1/2 x 2 x 4 plywood (05) tread (05) tread (04) back 1 x 10 x 4

#### Lowe's List

PROJECT #WSpr083

#### LUMBER\*

☐ 1 board. 1 x 10 x 4

 $\square$  1 sheet of plywood,  $\frac{1}{2} \times 2 \times 4$ 

#### **HARDWARE & SUPPLIES**

□ 1 box 4d finishing nails

☐ 1 box (¼-inch) staples

☐ 1 package (¾-inch) nail-on furniture glides

☐ doormat or carpet scraps

□ wood glue (Titebond III)

☐ paintable wood filler (PL)

☐ 1 quart Valspar Interior Latex High-Hiding

☐ 1 quart Valspar Ultra Premium, Anthem White 7006-24, semi-gloss

\*Availability varies by market.

## Table Saw Techniques

Jigs and fences will yield the best results.

very woodworker has favorite tools, but in most shops the table saw is the most versatile. It can be used to cut joinery and to rip, crosscut, and resaw boards. With the right accessories, you also can true up crooked boards and even use your table saw as a shaper/ molder. Some of these tasks, however, require working without the standard blade guard, and in those cases it is especially critical to have accessories or shop-built jigs that allow you to cut safely and accurately.

This is especially true when you are making on-edge cuts with the workpiece oriented vertically or perpendicular to the saw table. The technique is useful for cutting tongue-and-groove joinery, open mortises and tenons, and other profiles. But standard fences and miter gauges often don't provide enough stability and accuracy during cuts—especially with top-heavy workpieces and little surface area bearing on the saw table. Some manufacturers offer tenoning jigs or guides that clamp workpieces upright. While useful in some instances, they often can't handle large or cumbersome stock, and they are inefficient for machining multiple pieces because of the repetitive clamping required.

One of the best alternative techniques is to use a tall auxiliary fence

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(shown above: find more information on page 2) that slides along the saw's standard fence body. You can make this fixture quickly and inexpensively for a customized use. The fence also offers plenty of surface area to keep the face of the workpiece properly aligned. This technique is simple and straightforward as long as the base of the jig is positioned snugly on the saw's rip fence and you apply sufficient downward pressure on it when making cuts.

## Commanders of Cutting

Mastering cuts is essential to woodworking, and power tools have made it easier to perfect this skill. These three types of saws can help you make the right cuts for your next project.

#### **Band Saws**

hese tools are named after their blades, which consist of one continuous piece of metal formed in a loop or band. Useful in many applications, band saws are well-suited for curved cuts and resawing, which means cutting a piece of lumber down to a thinner size. Band saws also are perfect for making small, precise cuts such as the notch cuts made in the stop boards for the Desktop Easel project on page 8.

Hitachi 10-inch tilt-head **L** band saw (#251652) The exclusive tilting head on this band saw allows the workpiece and base to remain flat for stability and control, while the entire head of the saw tilts back.

#### Delta 14-inch band saw with stand (#59964)

This powerful industrial model features a <sup>3</sup>/<sub>4</sub>-horsepower (hp), 120-volt motor and has a 16- x 16-inch cast-iron table that tilts 45 degrees to the right and 3 degrees to the left for bevel cuts.



#### **Good To Know**

Learning to make cuts with a band saw can present challenges. Check out The Pros Know on page 3 for a great tip.

#### **Table Saws**

hese versatile power tools often are found at the center of a workshop, serving as the hub around which all other tools are positioned. A table saw is the best choice for ripping (cutting lengthwise along a board) and making crosscuts (cutting perpendicular to the wood grain). Table saw blades also are visible above the cutting surface, providing a good vantage point for making cuts. The blades are easily adjusted for material thickness and angles.



#### DeWalt 10-inch table saw (#244910)

Features on this portable model include a 15-amp motor, a max rip cut of 16 inches to the right of the blade, and a metal roll cage base for durability.

Hitachi 10-inch stationary table saw (#159372) A deluxe caster set for its base sets this table apart. Another key feature is the 15-amp induction motor, which is enclosed for protection against dust and debris.



Delta 10-inch 1.5-hp table saw (#237665) with T2 fence and rail package (#237669) This saw, highlighted by a 27x 40-inch table, offers increased accuracy when paired with the T2 fence and rail.

#### **Jigsaws**

any woodworkers make their first power-tool cut with this saw. Similar in capability to band saws, jigsaws are great for cutting curves, arcs, circles, and irregular shapes. Jigsaw blades differ from those on a band saw in that they move up and down during cuts. The blades also make the jigsaw a versatile tool because there are many types available for a wide range of applications and materials, including metal.

Due to their size, jigsaws are useful in many settings—especially outside the shop. But they are limited in how well they cut tight curves.



Black & Decker variable-speed jigsaw with case (#222024) This model offers a tool-free bladechanging system as well as a sight-line channel for good visibility when cutting.

Bosch 5-amp jigsaw #39166) This tool's retractable base plate makes flush cutting a snap. The jigsaw has a 33/8-inch cutting capacity for wood.



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# Final Finish

Keep your outdoor projects in top shape by choosing the right finish coating.

experience harsh treatment from the elements, but you can take steps that will help protect your projects.

First, let wood dry adequately prior to applying any kind of finish. This is especially true for the pressure-treated southern yellow pine lumber commonly used for decks, fences, and other outdoor projects. Use wooden spacers to allow air to circulate through stacks of boards, and store the wood out of direct sunlight or rain. Because it is saturated with wet preservative compound, treated lumber can neither

with wet preservative compound treated lumber can neither bond with nor absorb finishes well. For outdoor projects made from exterior woods, such as furniture, modern latex paints often are preferable to the oil-based enamels that many of us grew up with. Acrylic latex coatings retain more flexibility and thus

#### **Good To Know**

To prepare treated lumber to take a finish more effectively and thoroughly, let it air-dry, and if time allows, scrub with a wood bleach (oxalic acid) solution. You'll be pleased with the results.

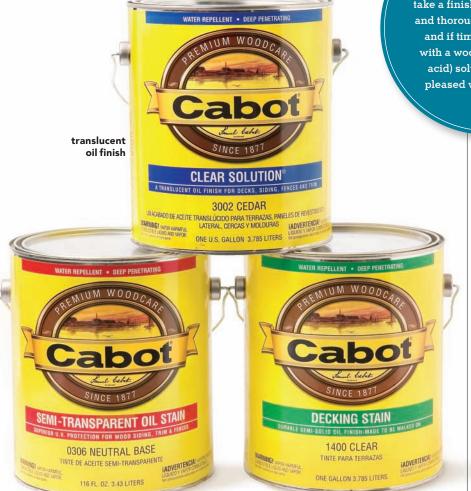
wood has been primed first to reduce porosity as well as moisture absorption. Also note that solid-color stains typically will perform better and last longer than penetrating finishes. Your options include solid-color and

tend to resist cracking,

especially when the

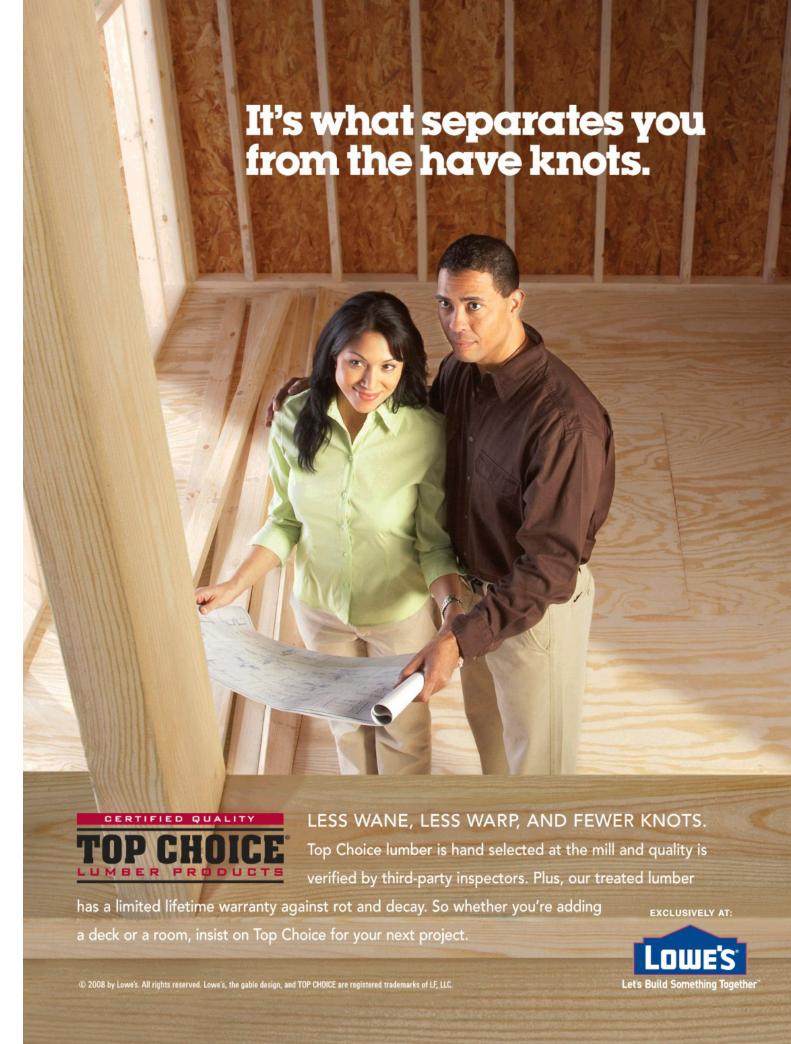
translucent formulas—either way, it's important to know that exterior stains will greatly reduce the maintenance requirements of outdoor wood. Solid-color formulas look virtually identical to paint, while translucent versions possess a semi-transparent quality that lets the figure of the wood show through.

You can see some similar characteristics in clear finishes that are used for exterior projects other than decks and fences. Topcoat finishes such as spar varnish or polyurethane will provide excellent protection while intact; however, once the finish begins to crack, water absorption is likely to cause it to degrade rapidly as the wood beneath shrinks and swells. Penetrating clear oils and sealers do not create a surface layer that will delaminate, but these types of finishes usually offer less protection from water and ultraviolet light and need to be reapplied often.



semi-transparent oil stain

decking stain

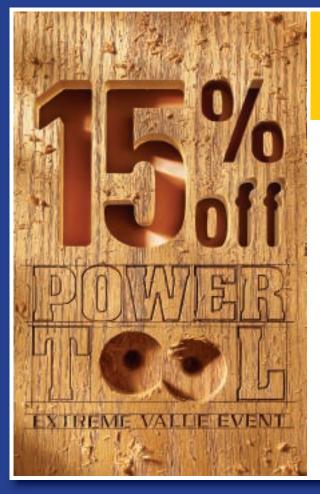




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