



all-weather
**Umbrella
table**



**It's solid and stable
and you can build
it in a weekend!**

by Eric Smith

an umbrella table doesn't have to look like an industrial chunk of metal or plastic. We designed ours with a cedar top and sides not only for longevity and stability, but because it will look handsome with minimal upkeep for years. The sides cloak a heavy concrete weight that anchors the umbrella.

In this article we'll show you how to build this umbrella table step-by-step. The tapered base may look like the work of a skilled craftsman, but the entire project—including the angled parts—is super simple. If you've tackled a few woodworking projects in the past, you can complete this one in a weekend. If you have only a little experience with woodworking tools and techniques, this is a good learning project.



1 Cut all four sides (A) from a 4 x 4-ft. sheet of plywood (Figure B). Your cuts don't have to be perfect—they'll be hidden behind the rails and stiles.

Tools, money and materials

You'll need a miter saw, a circular saw, a drill, and a pocket hole jig (\$60 to \$150; **Photo 7**). You can rip boards with a circular saw, but a table saw will give you better results.

With its knot-free cedar top, our table costs about \$150. If you use less expensive lumber, yours could cost



2 Screw the corner cleats (B) to two of the side panels with four screws along each edge. Screw the other two side panels to the cleats to form the table base.

less than \$100. You can, for example, use 5/4 cedar or pressure-treated deck boards for the top (if you select good pieces). Other good choices include teak, redwood, cypress and white oak. For the base, we used plywood and No. 2 cedar. Our cedar boards were 7/8 in. thick, but 3/4-in.-thick boards would also work. Patio umbrellas are available starting at about \$100 at home centers.

Figure A
Umbrella table

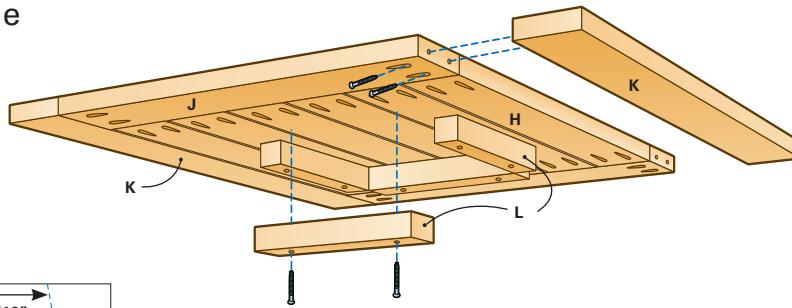
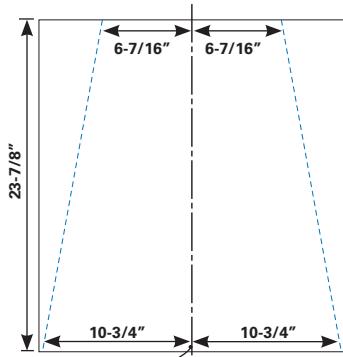
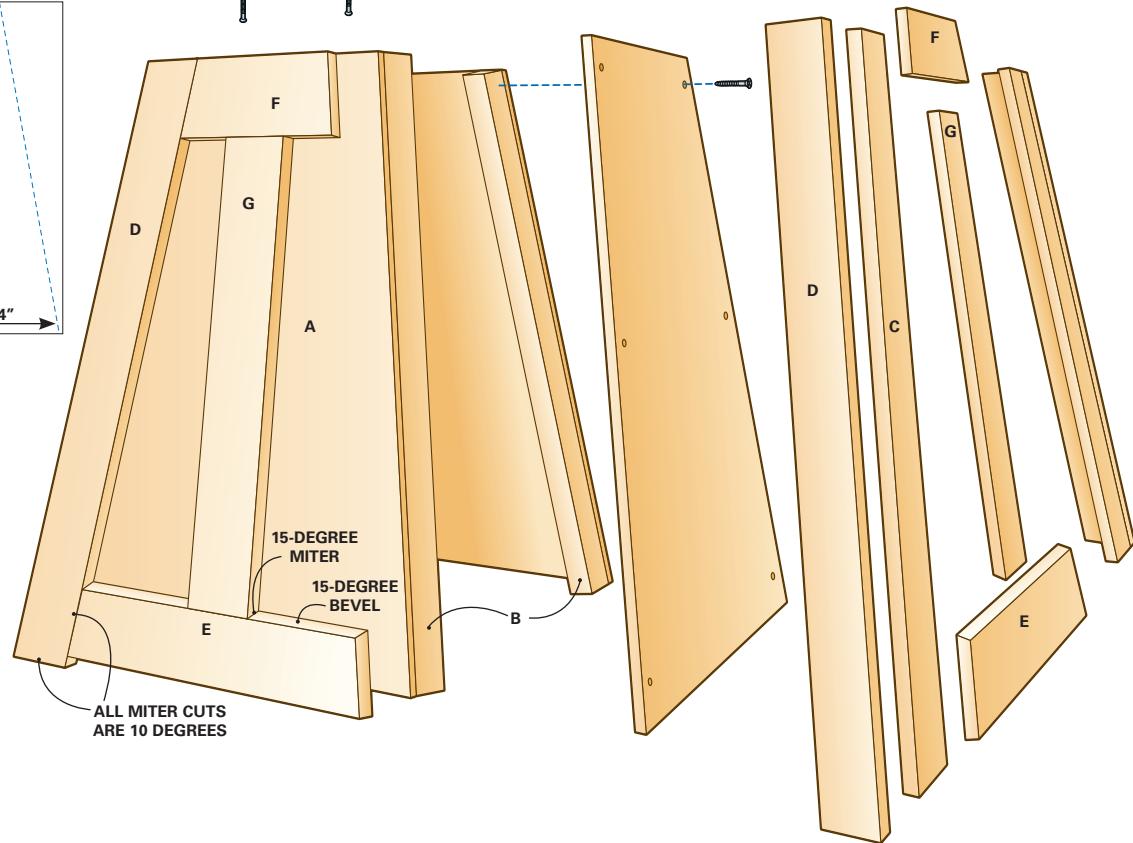


Figure B
Side panel dimensions



DRAW CENTER MARK
AND MEASURE OUT
FROM IT



A note on wood

Home centers often sell boards with a high moisture content, and they can shrink noticeably as they dry out. For a furniture project like this, it's a good idea to store your wood flat in a dry location for a few weeks before you use it.

Shopping List

ITEM	QTY.
T1-11 5/16" rough-sawn plywood (no grooves) (A)	1
Pressure-treated 2x2 x 8' (B, K)	2
Rough-sawn cedar 1x4 x 8' (C, D, E, F, G)	6
Clear (grade D or better) cedar 5/4 x 4' x 8' (H, J)	3
1-1/4" exterior screws	1 lb.
1" exterior screws	1 lb.
2" exterior screws	12
2-1/2" exterior screws	4
1-1/2" coarse-thread pocket screws	1 lb.
Exterior wood glue	
Exterior finish	
Cement mix	

Cutting List

KEY	QTY.	SIZE & DESCRIPTION
A	4	21-1/2" base x 12-7/8" top x 23-7/8"-tall plywood side panel
B	4	1-1/2" x 1-1/2" x 23-1/2" pressure-treated inside corner cleats
C	4	7/8" x 2-5/8" x 26-3/4" corner stiles
D	4	7/8" x 3-1/2" x 26-3/4" corner stiles
E	4	7/8" x 3-1/2" x approx. 17-1/2" lower rails
F	4	7/8" x 3-1/2" x approx. 9-1/2" upper rails
G	4	7/8" x 3-1/2" x 19-3/8" center stiles
H	6	1" x 3-1/2" x 4" x 22" top slats
J	2	1" x 3-1/2" x 4" x approx. 22" short frame sides
K	2	1" x 3-1/2" x 4" x 29" long frame sides
L	4	1-1/2" x 1-1/2" x 10" inside top cleats

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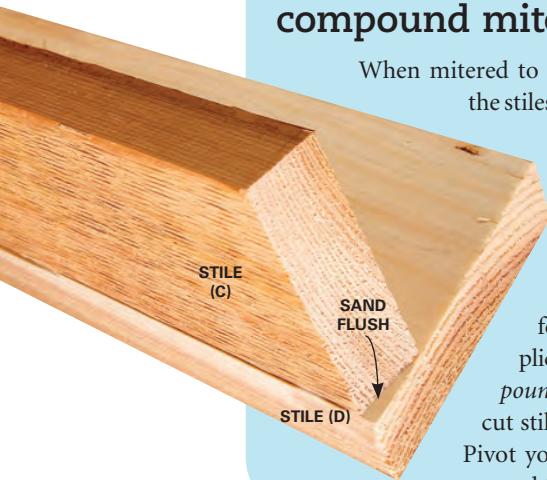
3 Clamp your miter saw and a stop to your workbench. Set your saw to 10 degrees and cut the stiles (C and D).



4 Set the base on 2x4s. Glue and clamp the stiles (C and D) to each other. Then spread glue on the stiles and screw them to each corner from inside.

No need for compound miter cuts

When mitered to 10 degrees, the ends of the stiles (C and D) won't match up evenly. That's no problem; just sand the protruding corners flush and no one will ever notice. But if you prefer perfection rather than simplicity, and you have a *compound* miter saw, you can cut stiles that match perfectly. Pivot your saw to miter 10 degrees and tilt it to bevel 10 degrees.



5 Tilt your table saw 15 degrees and rip a bevel along the top edge of the lower rails (E) so water will drain off.

Build the base

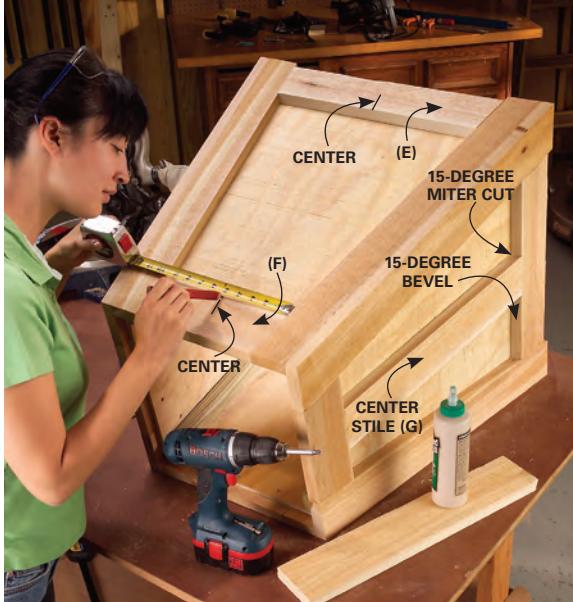
The umbrella stand's base is simply a tapered plywood box with trim (**Figure A**). Cut four side panels (A) from a 4 x 4-ft. piece of 5/16-in. "T1-11" plywood (**Photo 1**). T1-11 is a common type of rough-sawn exterior-grade plywood available at most lumberyards. **Figure B** shows how to lay out the cuts. Then use corner cleats (B) to join the panels (**Photo 2**).

The corner stiles, which act as the legs of the base, come next. Four of the stiles (D) are full-width 1x4s (3-1/2 in. wide) and four (C) are ripped to 2-5/8 in. wide. Cut the stiles to length (**Photo 3**), then glue and clamp them together. Let the glue set for an hour before you attach the stiles to the corners of the base with glue and 1-in. screws (**Photo 4**). Use plenty of glue to ensure a strong bond with the rough plywood.

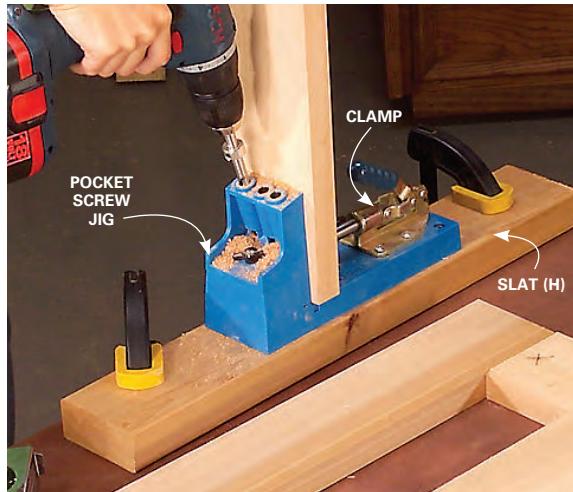
Add decorative rails and stiles

Bevel the top edges of the lower rails (E; **Photo 5**). Then cut the upper and lower rails to length, mitering the ends of the rails at 10 degrees. Test-fit them, then glue and fasten them to the plywood with screws driven from inside.

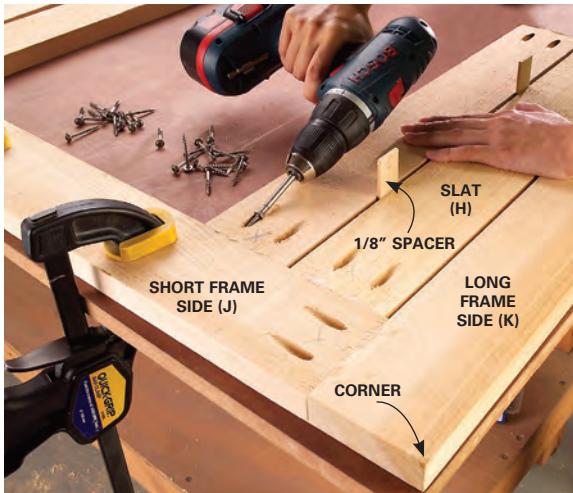
To complete the base, add the center stiles (G). Cut a 15-degree bevel on one end of each center stile and make a square cut on the other end. Make each stile about 1/8 in. too long, check the fit and shave off a smidgen with your miter saw until it fits perfectly. Center the stiles when you glue and screw them into place (**Photo 6**).



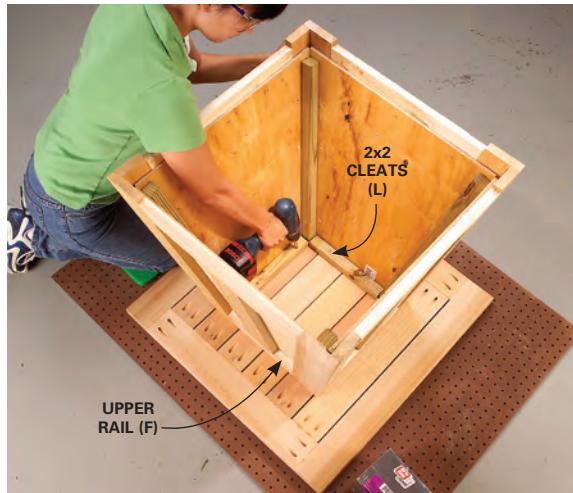
6 Attach the rails (E and F) with glue and screws driven from inside. Then mark their centers, position the center stiles (G) and fasten them.



7 Cut and lay out the tabletop (Figure A) with the best side of each part face down. Mark the pocket hole side, then drill two holes per end with a pocket hole jig.



8 Join one corner with glue and pocket screws. Position the slats (H) with 1/8-in. spacers and fasten them. For flush joints, clamp the piece you're screwing into.



9 Center the base on the tabletop and screw 2x2 cleats (L) to the tabletop with 2-in. screws. Don't overdrive the screws or they'll poke through the top. Drive screws through the upper rails (F) into the cleats.

Assemble the top with pocket screws

The slats (H) must be precisely the same length, so cut them using the stop you used to cut the corner stiles (Photo 3). When you cut the short frame sides (J), don't rely on the measurement (22 in.) given in the Cutting List. Slight variations in the widths of the slats can change this measurement. Instead, lay out the six slats with 1/8-in. spacers between them, measure the total width of the row of slats and add 1/4 in. Then cut the short frame sides, lay them in place and take a measurement for the long frame sides (K). With all the parts laid out, drill pocket holes (Photo 7). Start assembly by joining two frame sides at one corner, then add the slats before attaching the other two frame sides (Photo 8).

Master pocket screw joinery in minutes

Don't be intimidated by pocket screw joinery. The pocket screw jig may look complicated, but after about 10 minutes of practice you can create tight, strong joints. For some tips, see "Tight Joints with Pocket Screws," Feb. '03, p. 23. (To order a copy, see p. 5.) A good-quality pocket screw kit (containing a jig, clamp, drill bit and driver) costs from \$60 to \$150, depending on the features. It's well worth the investment. One source is www.kregtool.com.

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Next, fasten 2x2 cleats (L) to the underside of the top (**Photo 9**). Then drill a 3/16-in. hole through each upper rail (F) and drive a 2-in. screw into each cleat. You can remove the tabletop simply by removing these four screws; this makes finishing, moving and storing the table easier. Drill a hole through the center of the top with a hole saw. Our umbrella pole required a 2-in. hole.

Before finishing, dab exterior wood glue on the end grain at the bottom of the legs. Then apply exterior oil finish to the inside and outside of the table. We used exterior teak oil.

Anchor the umbrella with a heavy base

You don't have to spend \$50 or more on a fancy umbrella base. You can make a simple-but-stable base with a 5-gallon bucket, a 60-lb. bag of concrete mix and 2 ft. of PVC pipe. You'll need 1-1/2- or 2-in. pipe, depending on the diameter of your umbrella pole.

Mix the concrete and water in the bucket. Cover the bottom end of the pipe with duct tape to keep the concrete out. Set the pipe into the concrete and push it all the way to the bottom of the bucket. Hold a level against



10 Set the lower end of the umbrella pole in the base. Drill a 3/8-in. hole through the pipe and pole. Secure the pole by running a 1/4-in. eye bolt through the hole.

the pipe to make sure it's standing straight up. After the concrete hardens, drill a hole so you can fasten the pole to the pipe (**Photo 10**). Also drill a hole through the bucket at the level of the concrete so rainwater can drain.