Luxury Lounger

Even a beginner can build this reclining deck lounger

by Dan Cary

Our deck lounger reclines in four positions and is sized to fit most manufactured lounge chair cushions.

There are some projects you look forward to finishing more than others — not because they're less fun to build; it's just that you can't wait to put them to use. This reclining deck lounger is a perfect example. Unlike building a wheelbarrow or workbench, a project that ultimately just enables you to do more work, once you complete a deck lounger you get to relax (and even put your feet up).

Despite its refined appearance, this is a project that most homeowners can build. I made it out of dimension lumber, which is readily available at home centers. Most often used for carpentry projects such as framing houses or building decks, dimension lumber is often eschewed for creating furniture because the resulting pieces can look clunky or homemade. To keep my lounger from resembling a reclining picnic table, I used both 1x and 2x lumber and ripped some of the stock to create custom widths.

You probably already own all of the necessary tools for this project. Although I had access to a few machines that some homeowners might not have (such as a table saw), in these instances you can use one of the alternative methods or material options I'll describe to achieve the same results.

Construction

The legs and base rails connect with half-lap joints, which are easy to make and offer more strength and a more refined appearance than a common butt joint. I used a circular saw to cut several kerfs across the joint area (photo 1, p. 12), broke out the material between the kerfs with a hammer and then smoothed the joint faces with a chisel.

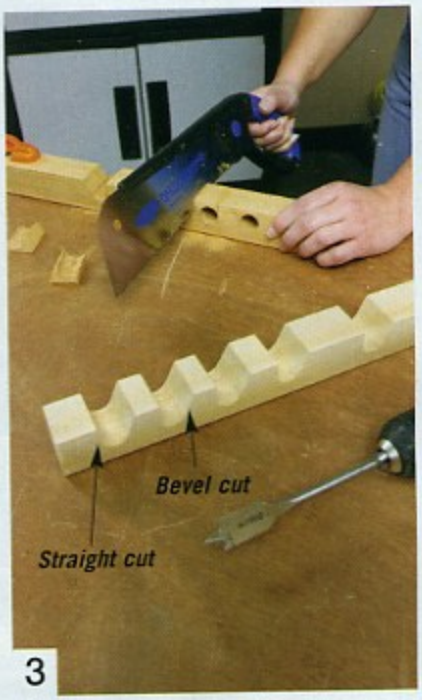
There are several curve profiles to cut; almost all of them are created using the same profile template (see Base Details drawing, p. 13). Create a full-size template by enlarging the drawing on a copy machine or by transferring the profile by hand onto a 5-1/2- x 10-in. grid.

Once you have created the profile template, trace it onto the ends of the base rails (photo 2). Flip the template over and end-for-end to draw the back end profile on the base rails. Next, use only the top portion of the template for the back rails. Then place the front legs

PHOTOS BY DAN CARY

Mark the area on each piece that will overlap. Set the saw blade depth to half the thickness of the stock. Make several passes, starting at the inside edge of the half-lap area.

Create a curved profile template. Use the same template to mark the curve profiles on the base rail, back rail and front leg. Cut along the profile lines with a jigsaw or band saw.



Drill 3/4-in.-dia. holes at each notch position and then use a handsaw to cut to the edge of each hole. Bevel the front cut, and keep the back cut perpendicular to the top.

across the base rails in the position that they will later be fastened and adjust the template on the front legs so that the curve flows into the front curve on the base rails. Finally, draw the only curves that don't follow the template — a 1-1/2-in.-radius half-circle on the bottom of the back leg and an arc on the front arm support. Cut the curve profiles in each piece.

The adjustable backrest is supported by two arms that connect to a dowel. The dowel fits into notches that are cut into a support rail. The notches are spaced to accommodate four positions, ranging from lying flat to sitting upright. To form the notches, first drill 3/4-in.-dia. holes at each notch position (see Support Rail Detail, p. 13) and then cut through the top of the support rail to open up the top of each notch (photo 3). The front cut into each notch is beveled slightly so that the support bar easily slides out of the notch when the backrest is lifted, but the back cut is perpendicular so that the support bar can't slide out when you lean on the backrest.

Assemble the base frame and back frame with exterior-rated glue and screws (photo 4, p. 14). I concealed the screws that fasten the legs by driving them from the inside of the frame, but not all of the screws are as easily hidden. So instead of trying to hide all of them, I used decorative stainless steel washers to enhance the look of the exposed screws. Next, attach the support rails to the base rails and glue the support arm spacers to the inside of the back rails.

Because making the slats out of stock widths of 1x lumber would have given the piece a clunky appearance, I ripped 1x4s down the middle to create boards that were a little less than 1-3/4 in. wide. (This approach also left very

MATERIALS AND CUTTING LIST

All parts exterior-rated lumber

KEY	NO.	DESCRIPTION	SIZE
A	2	Base rails	1-1/2 x 5-1/2 x 78 in.
B	4	Base stretchers	1-1/2 x 3-1/2 x 24 in.
C	2	Back rails	7/8 x 3 x 31 in.
D	2	Back stretchers	1-1/2 x 3-1/2 x 22 in.
E	2	Front legs	1-1/2 x 3-1/2 x 14 in.
F	2	Back legs	1-1/2 x 3-1/2 x 11-3/4 in.
G	2	Support rails	1-1/2 x 1-5/8 x 15 in.
H	12	Base slats	7/8 x 1-3/4 x 51 in.
I	12	Back slats	7/8 x 1-3/4 x 32-1/2 in.
J	2	Back-support spacers	7/8 x 3 x 3 in.
K	2	Back-support arms	7/8 x 2 x 15 in.
L	1	Back-support bar	3/4 in. dia. x 23-3/4 in.
M	2	Front armrest supports	7/8 x 1-3/4 x 12-3/4 in.
N	2	Back armrest supports	7/8 x 1-3/4 x 9 in.
O	2	Armrest rails	1-1/2 x 2 x 28 in.
P	2	Armrests	7/8 x 4-1/2 x 31 in.

SHOPPING LIST

- 1x4 x 8-ft. cedar (8)
- 1x6 x 8-ft. cedar (1)
- 2x4 x 8-ft. cedar (3)
- 2x6 x 8-ft. cedar (2)
- 3/4-in.-dia. x 23-3/4-in. dowel
- 1-1/4-in. stainless steel screws
- 1-5/8-in. stainless steel screws
- 3-in. stainless steel screws
- Stainless steel finish washers (40)
- 1/4 x 3-in. stainless steel machine screws (2)
- 1/4 x 3-1/2-in. stainless steel machine screws (2)
- 1/4-in. stainless steel finish washers (4)
- 1/4-in. stainless steel flat washers (8)
- 1/4-in. stainless steel locknuts (4)
- 1/2-in.-dia. x 28-1/2-in. aluminum rod
- 8-in.-dia. lawn mower wheels (2)
- 1/2-in. stainless steel washers (6)
- 1/2-in.-dia. x 19-1/2-in. PVC tubing
- 1/2-in. axle push caps (2)

DECK LOUNGER

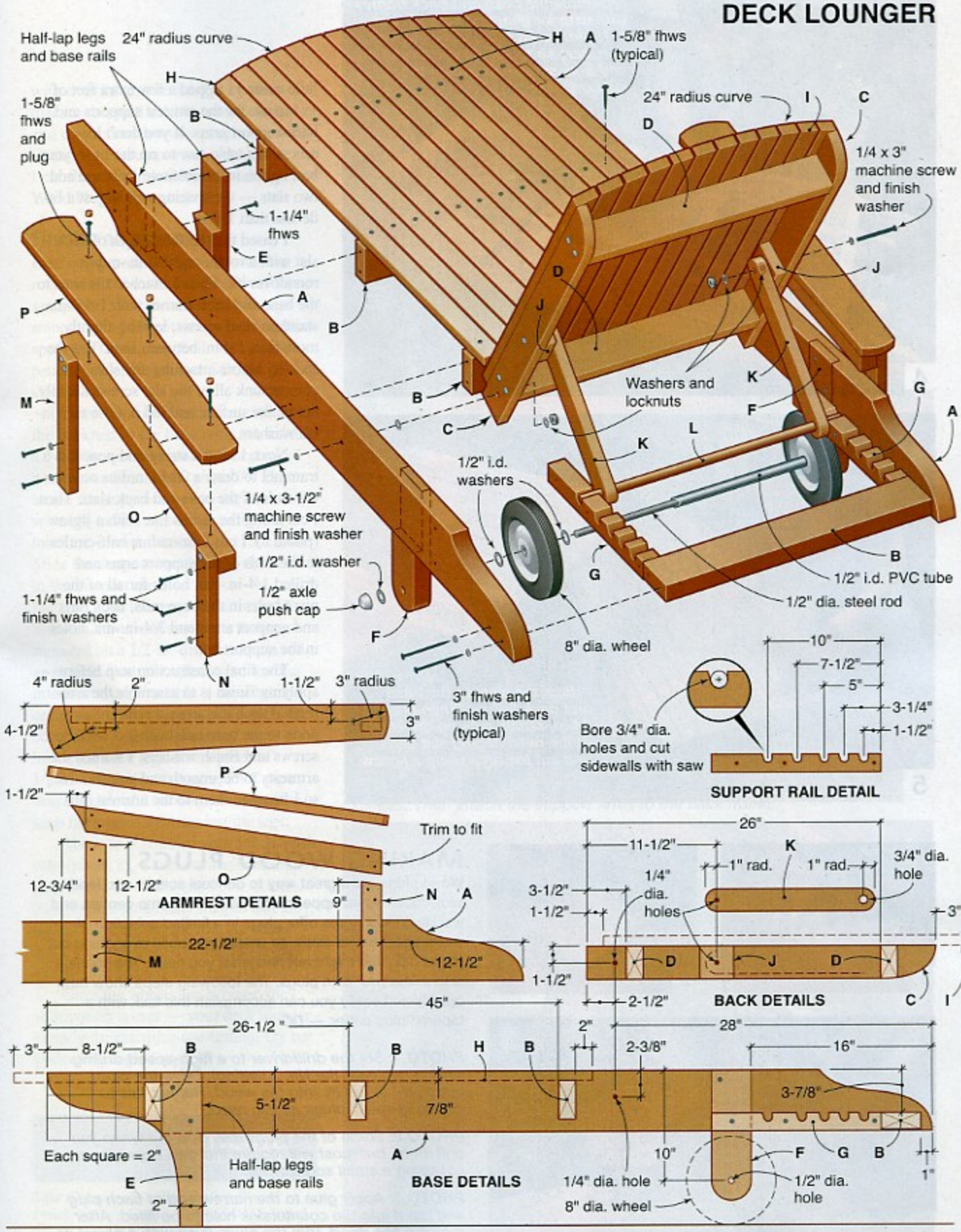


ILLUSTRATION BY GABRIEL GRAPHICS

Assemble the base and back frames with exterior glue and screws. Use 1-1/4-in. screws to secure the legs, 3-in. screws to secure the stretchers and 3-in. screws to secure the support rails.

4

Attach the slats to the base and back frames. Then draw 24-in.-radius arcs on the ends of the overhanging slat ends and cut the arcs using a jigsaw.

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little waste.) I ripped a few extra feet of 1x4 to use for the armrest supports and back-support arms. If you don't have access to a table saw to rip the 1x4s, your best option is to substitute 1x2s and add two slats — the spacing will be just a little less than 1/4 in.

I eased the top long edges of each slat with a router and 1/8-in.-radius roundover bit. Then I attached the slats to the base and back frames with 1-5/8-in. stainless steel screws, leaving slightly more than 1/4 in. between slats. Test the spacing before attaching any slats. I countersunk all of the slat screws slightly below the surface and did not use the finish washers.

Next, I used a string and pencil as a trammel to draw a 24-in. radius across the ends of the base and back slats. Then I cut along the radius line with a jigsaw (photo 5). I cut 1-in.-radius half-circles in the ends of the support arms and drilled 1/4-in.-dia. holes for all of the pivot bolts in the base rails, back rails and support arms and 3/4-in.-dia. holes in the support bar.

The final construction step before applying finish is to assemble the armrests. Attach the armrest rails and supports to the base rails with 1-5/8-in. screws and finish washers. I wanted the armrests to be smooth and comfortable, so I fastened them to the armrest rails

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MAKING WOOD PLUGS

Wood plugs are a great way to conceal screws and lend projects a refined appearance. But most home centers and woodworking stores offer plugs in a limited selection of wood species and sizes, so unless you build everything out of red oak, you might not find what you need. The solution is to make your own plugs. The following steps show how quickly and easily you can accomplish this task with a tapered plug cutter. — *DC*

PHOTO 1: *Set the drill/driver to a high-speed drilling setting (typically the No. 2 setting). Drive the plug cutter 1/4 to 3/4 in. into the wood. Repeat this to create as many plugs as you need.*

PHOTO 2: *Some of the plugs may pop out when you drill them, but most will require that you break them out using a small screwdriver.*

PHOTO 3: *Apply glue to the narrow end of each plug and tap it into the countersink hole to be filled. After the glue has dried, trim the plugs flush with a chisel or flush-cut saw and then sand them smooth.*

with exterior glue and 1-5/8-in. screws that are recessed in countersunk holes and covered with wood plugs (photo 6). Cedar plugs are not readily available, so I cut the plugs myself (see "Making Wood Plugs," opposite).

Finish and assembly

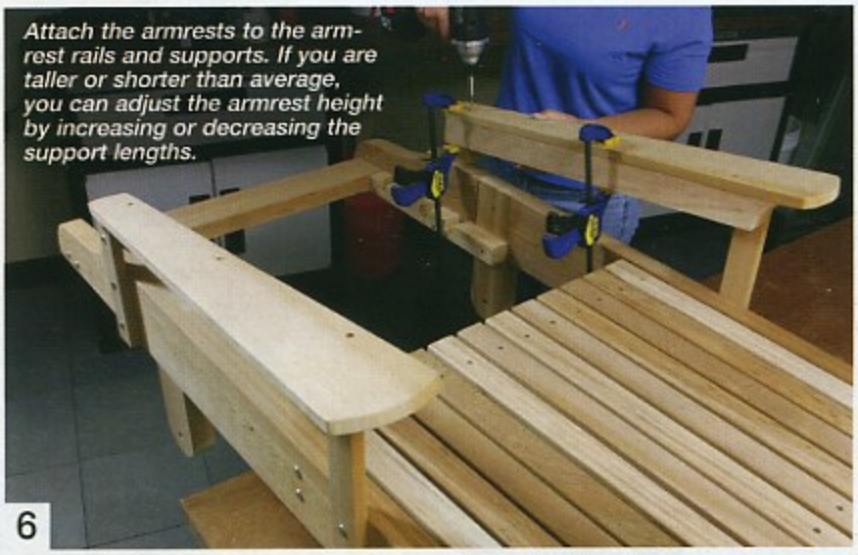
Ease any exposed rough edges with a router and 1/8-in.-radius roundover bit or sandpaper. Sand the rest of the lounger smooth with 150-grit sandpaper and then apply the finish. I applied one coat of a penetrating oil finish (see SOURCES ONLINE).

Once the finish has cured, attach the backrest to the base with 1/4-in.-dia. x 3-1/2-in. exterior machine screws, washers and locknuts (photo 7). Then attach the support arms to the back rail with 1/4-in.-dia. x 3-in. exterior machine screws, washers and locknuts. Slide the support bar through the holes in the support arms.

The deck lounger rolls on a set of 8-in.-dia. lawn mower wheels that are mounted on a 1/2-in.-dia. aluminum rod as an axle. Both the wheels and the aluminum rod are available at most home centers and hardware stores. To partially conceal the wheels, I mounted them inside the back legs. I fit a piece of 1/2-in.-i.d. (inside diameter) PVC pipe over the axle and between the wheels to keep the wheels tight against the legs.

The axle is retained with 1/2-in. push caps (photo 8), which are available at most hardware stores and home centers. Push caps feature metal flanges that are angled to slide onto the rod, but when you try to pull them off, the flange digs into the rod and will not slide off.

Once the wheels are in place, the anticipation is over — your deck lounger is ready for extensive use-testing. Try not to sleep through dinner. ◆



Attach the armrests to the armrest rails and supports. If you are taller or shorter than average, you can adjust the armrest height by increasing or decreasing the support lengths.

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Attach the back assembly to the base assembly with bolts, washers and locknuts. Then attach the support arms to the back frame.

Clamp a scrap of wood against the opposite end of the axle to hold it securely in place when pounding the push caps onto the axle.

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SOURCES ONLINE

For online information, go to www.HandymanClub.com and click on SOURCES ONLINE.

Behr (Premium Weatherproofing Wood Finish, Natural Cedar), 800-854-0133, Ext. 2

Rockler Woodworking (plug cutters) 800-279-4441