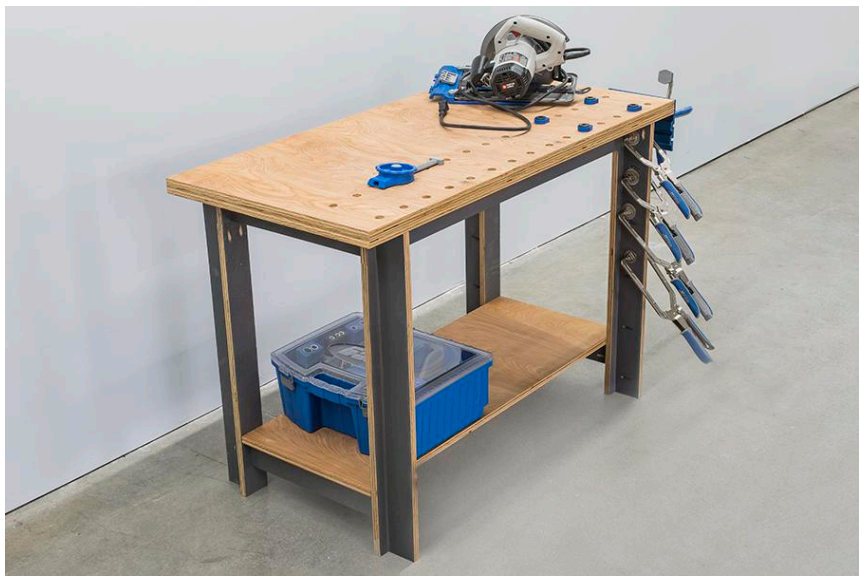
One-Sheet Workbench

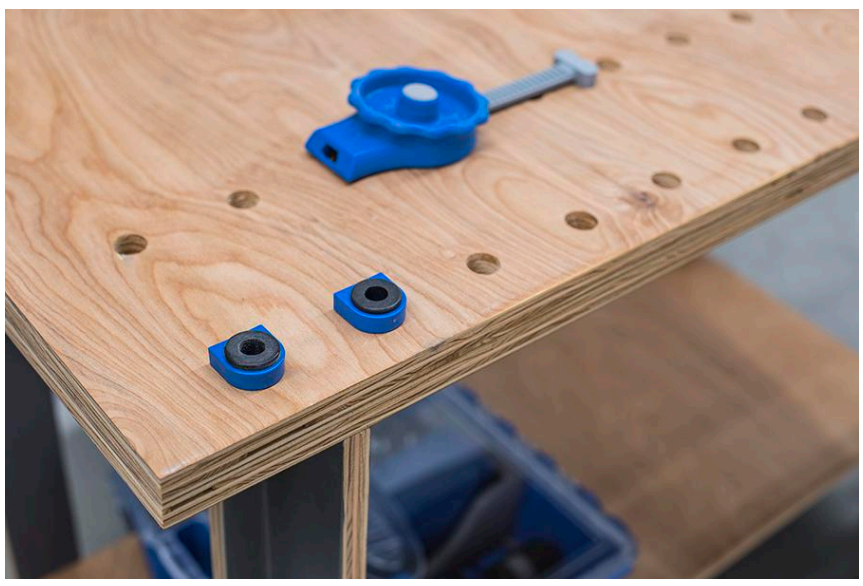
Difficulty

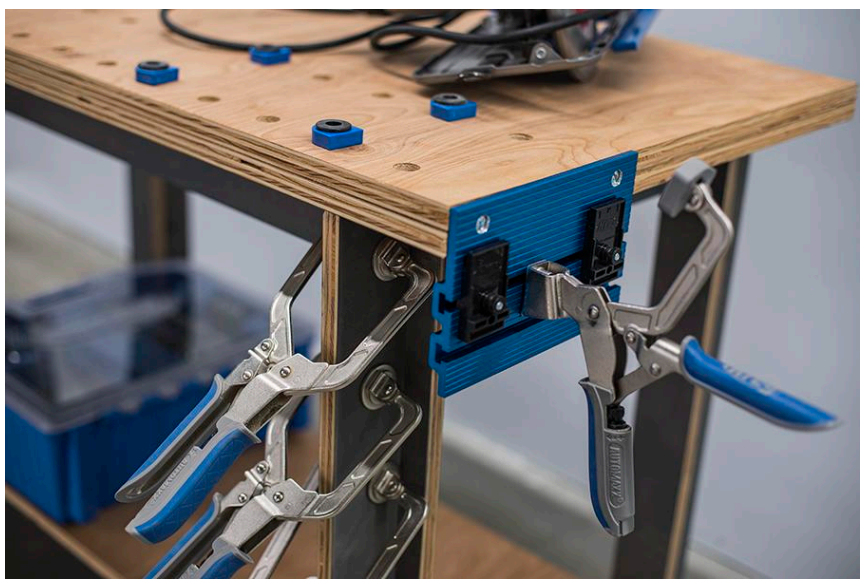
Easy

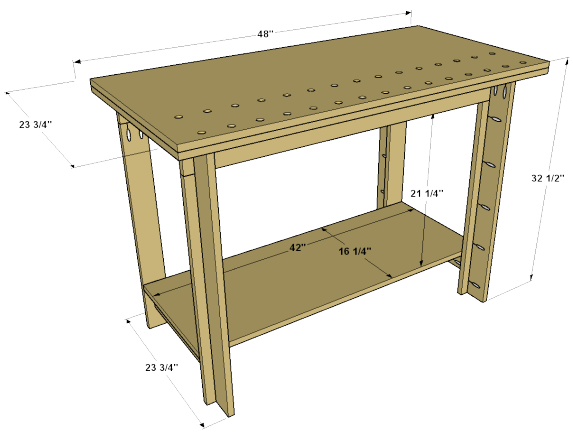
Creating a sturdy workbench has never been easier or more economical. This one is built from a single sheet of 3/4" plywood that costs less than $50. Plus, the legs and rails are all cut to the same width, which is easy to do with a circular saw and saw guide. Pocket-hole screws put it all together.











Tools

Kreg Tools


Kreg® Pocket-Hole Jig 720


Rip-Cut™


Wood Project Clamp - 3"


Clamp Vise

Other Tools

circular saw

portable drill guide

tape measure

sander

Materials

Wood Products

1 Plywood , 3/4" X 48" X 96"

Hardware & Supplies

2 100-count Box 1 1/4" Coarse-thread Kreg Pocket-Hole Screws

Cut List & Parts

4 Leg , 3/4" X 3" X 28"

2 Front/Back Rail , 3/4" X 3" X 42"

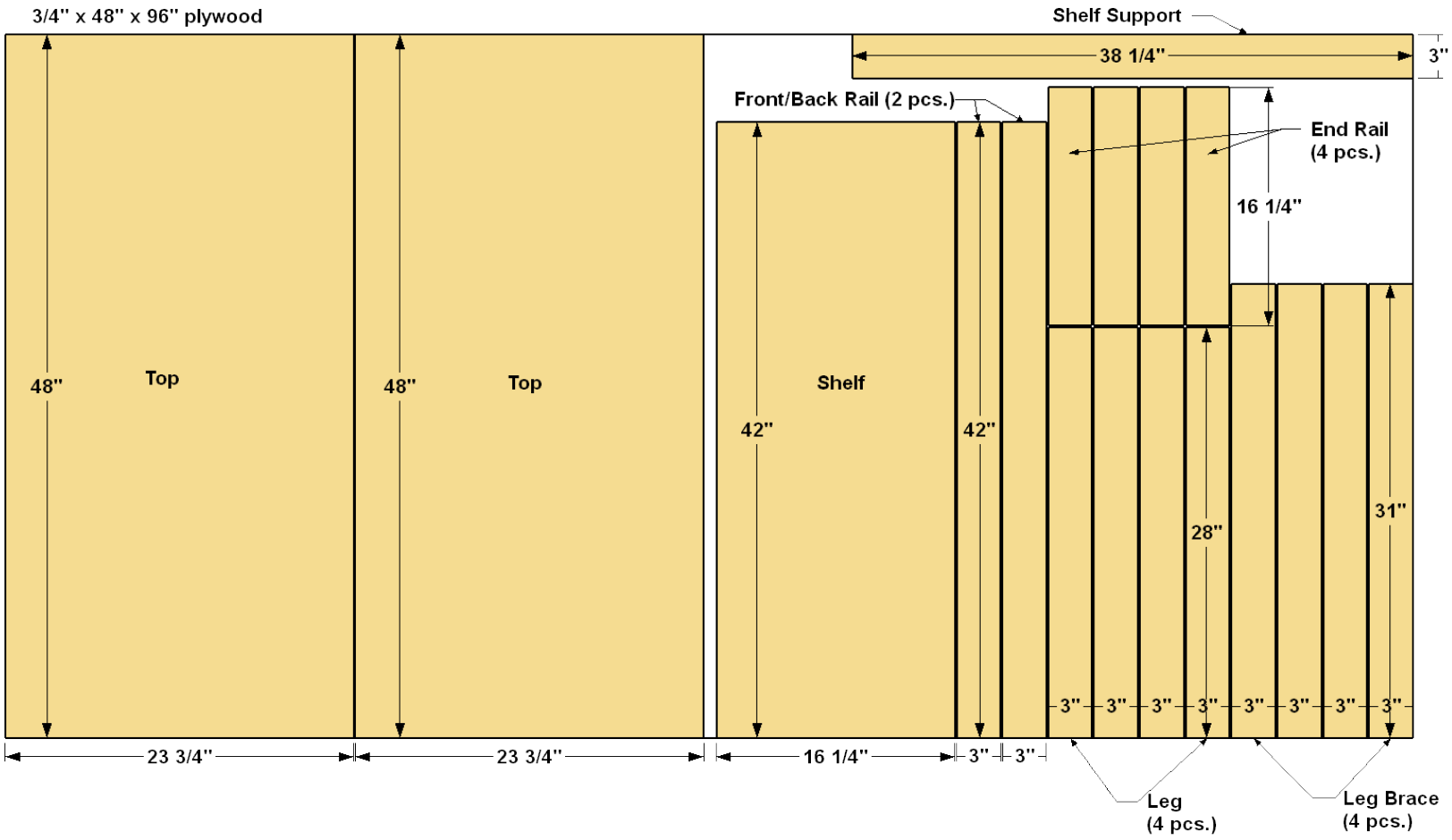
4 End Rail , 3/4" X 3" X 16 1/4"

1 Shelf Support , 3/4" X 3" X 38 1/4"

4 Leg Brace , 3/4" X 3" X 31"

2 Top , 3/4" X 23 3/4" X 48"

1 Shelf , 3/4" X 16 1/4" X 42"



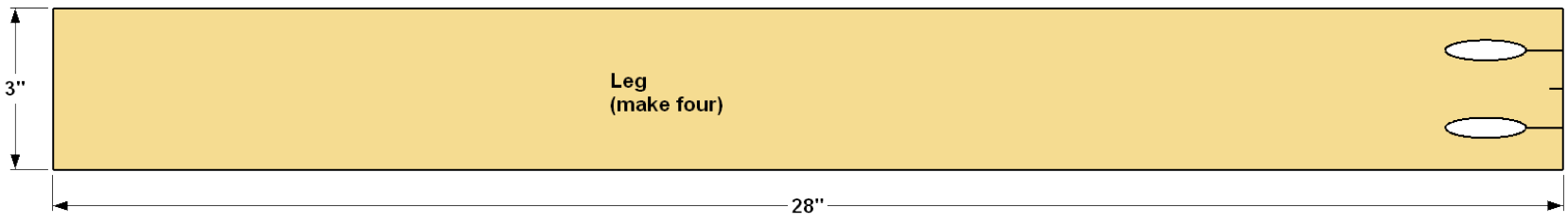
Directions

1 Cut the Parts in Sequence

All of the parts for this project get cut from one sheet of plywood, as shown in the cutting diagram. To get the parts from one sheet, you need to cut them in a certain sequence. Double-check your measurements, and mark each part the name so you don't get them mixed up. A couple of saw guides make this easier. We used two guides from Kreg: the Accu-Cut™ and Rip-Cut™. First, cut two Tops—we used the Accu-Cut™. Next, set the Rip-Cut™ for a 3"-wide cut, and then rip a long strip for the Shelf Support, as shown. Now you can reset the Rip-Cut to 3", and then crosscut ten 3"-wide strips from the remainder of the sheet. Finally, cut a 16 1/4"-wide strip for the Shelf.

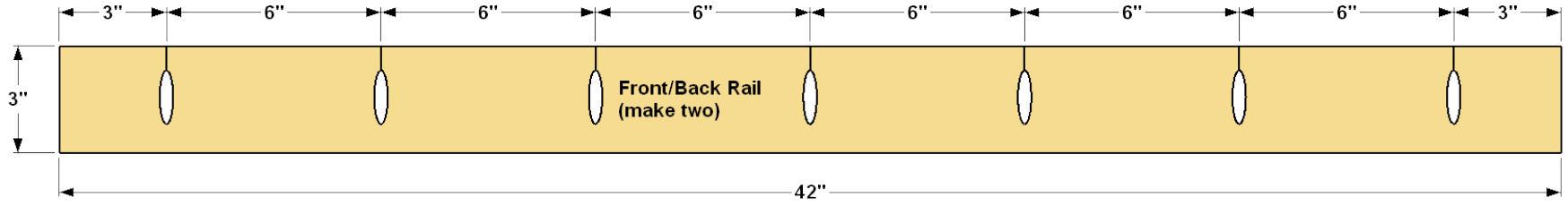
2 Cut the Legs to Length

Next, from one of your ten 3"-wide strips, cut four Legs to final length. We used a miter saw, though you could also use a circular saw—just make sure the cuts are square. Whether you are using a circular saw or a miter saw, make sure that you measure and cut carefully so that all of the pieces end up the same length. Set your Kreg Jig® for 3/4"-thick material, and then drill pocket holes in one end of each Leg, as shown. Sand the faces and edges smooth.



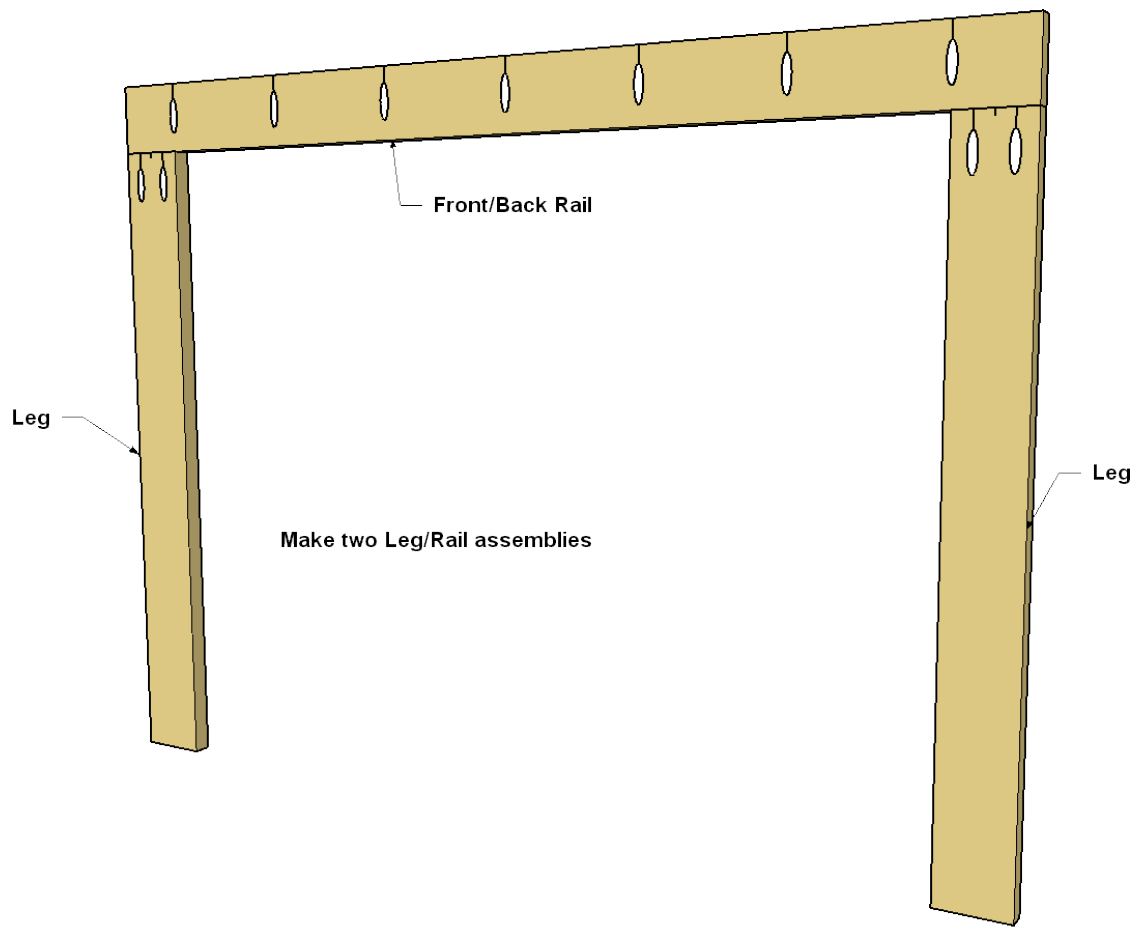
3 Make the Front and Back Rails

From two more of the strips, cut two Front/Back Rails to final length. Then drill pocket holes along one edge of each Rail, as shown. Sand the pieces smooth.



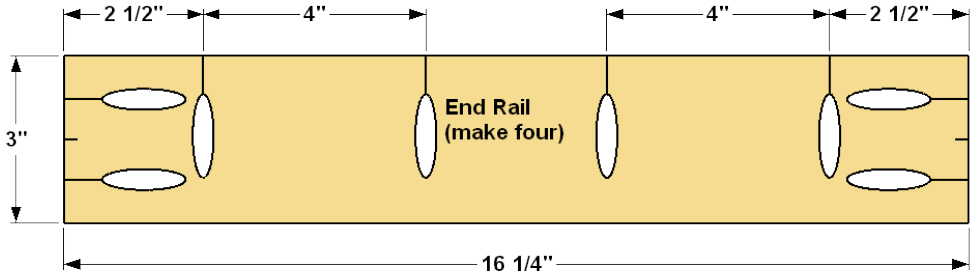
4 Attach the Legs to the Rails

Now you can attach two Legs to the Front Rail, and two to the Back Rail, as shown, using 1 1/4" coarse-thread Kreg Screws. Make sure that the pocket holes in the Front and Back Rails are oriented correctly for attaching the bench top later.



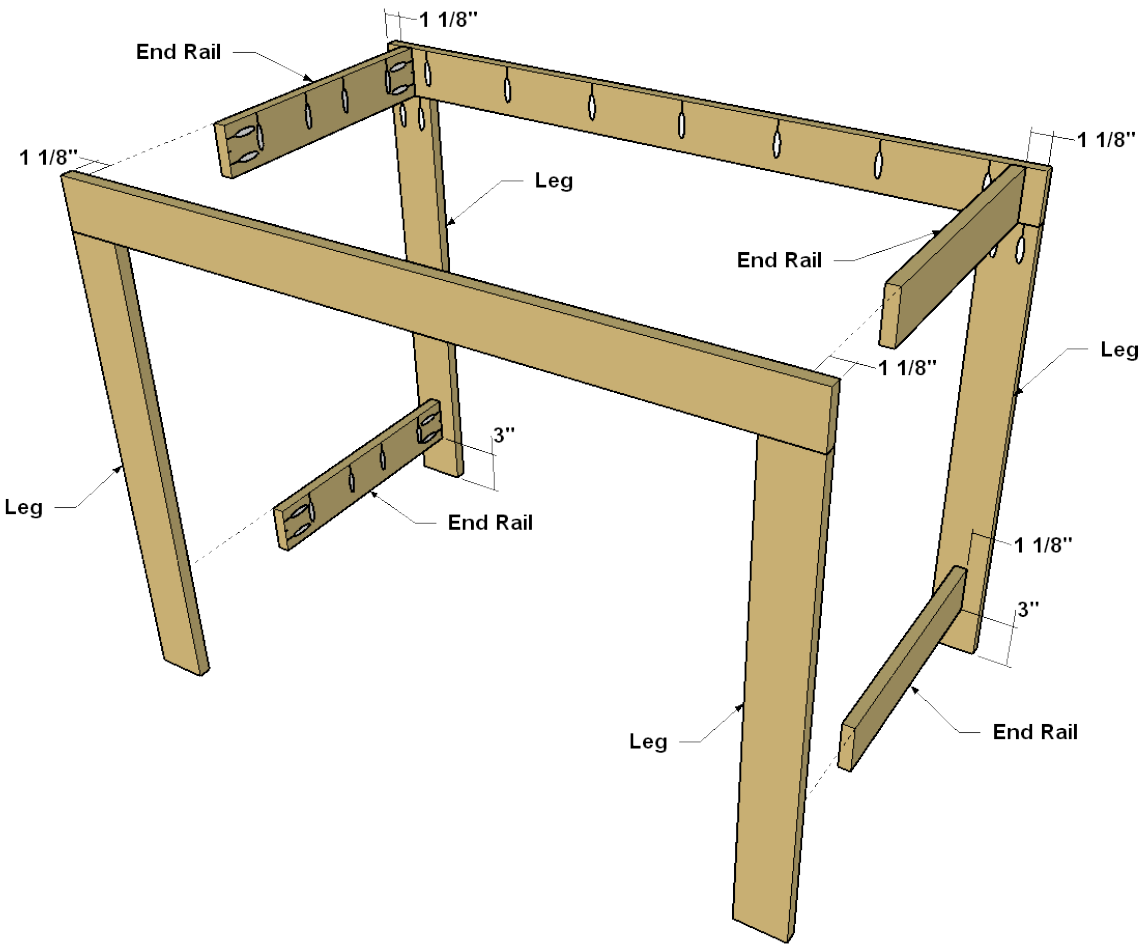
5 Make the End Rails

Now, from the remaining pieces of the strips you used for the Legs, cut four End Rails to final length. Then drill pocket holes, where shown, in each of the End Rails. Sand the pieces smooth.



6 Attach the End Rails

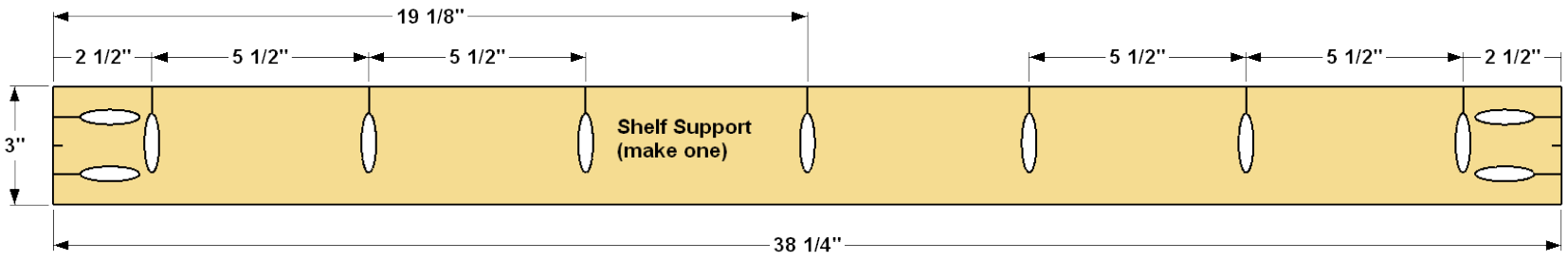
Now you can start putting your bench base together by attaching the End Rails. They get mounted, as shown, so that they are centered on the width of the Legs. Make sure that the pocket holes in the End Rails are oriented correctly, and then position the Ends Rails as shown. The upper ones sit flush with the upper edge of the Front/Back Rails. The lower End Rails get installed 3” up from the lower end of each Leg. Attach the End Rails using 1 1/4" coarse-thread Kreg Screws.



7 Make a Shelf Support

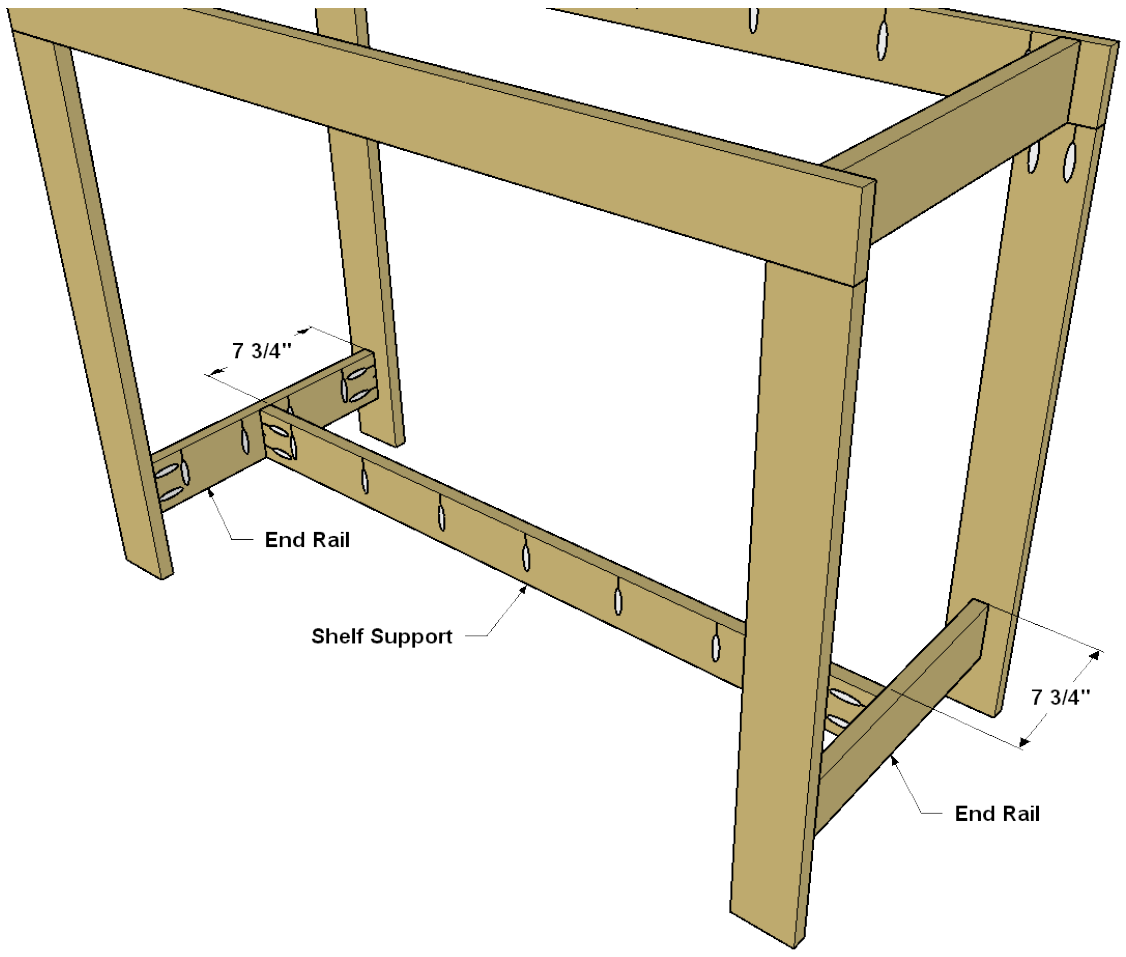
Now you can cut the Shelf Support to final length, and then drill pocket holes in the ends and along one edge, as shown.

Sand the Shelf Support smooth.



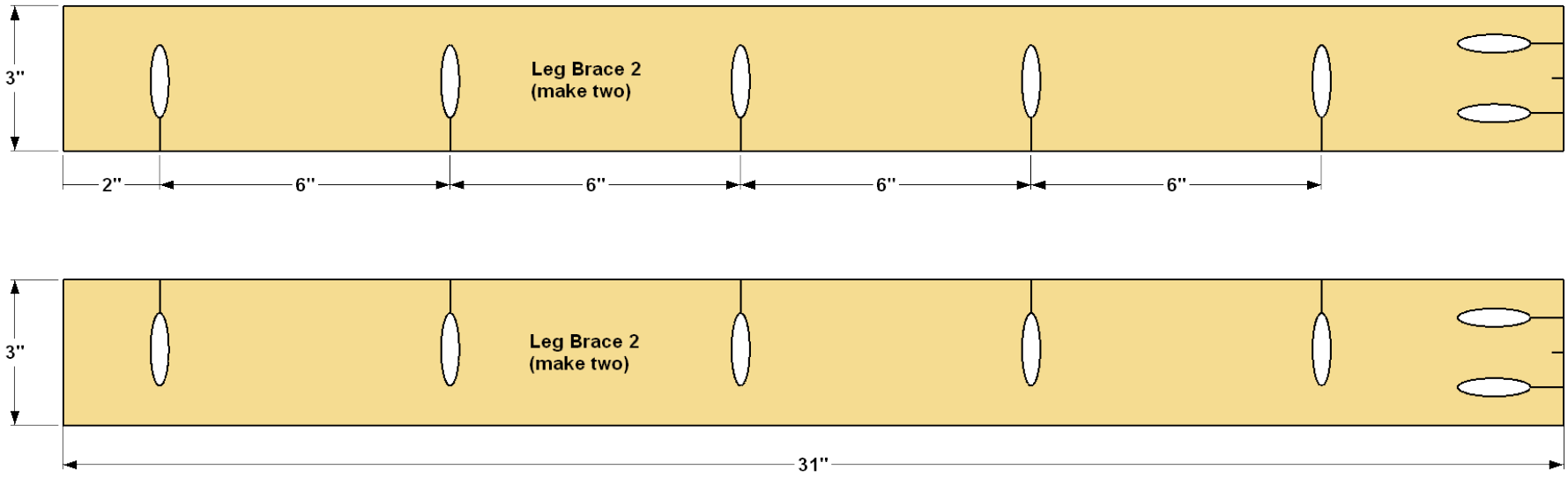
8 Attach the Shelf Support

With the Shelf Support complete, you can attach it. Position it between the lower End Rails so the Shelf Support is centered and the pocket holes are oriented correctly. Attach the Shelf Support using 1 1/4" coarse-thread Kreg Screws.



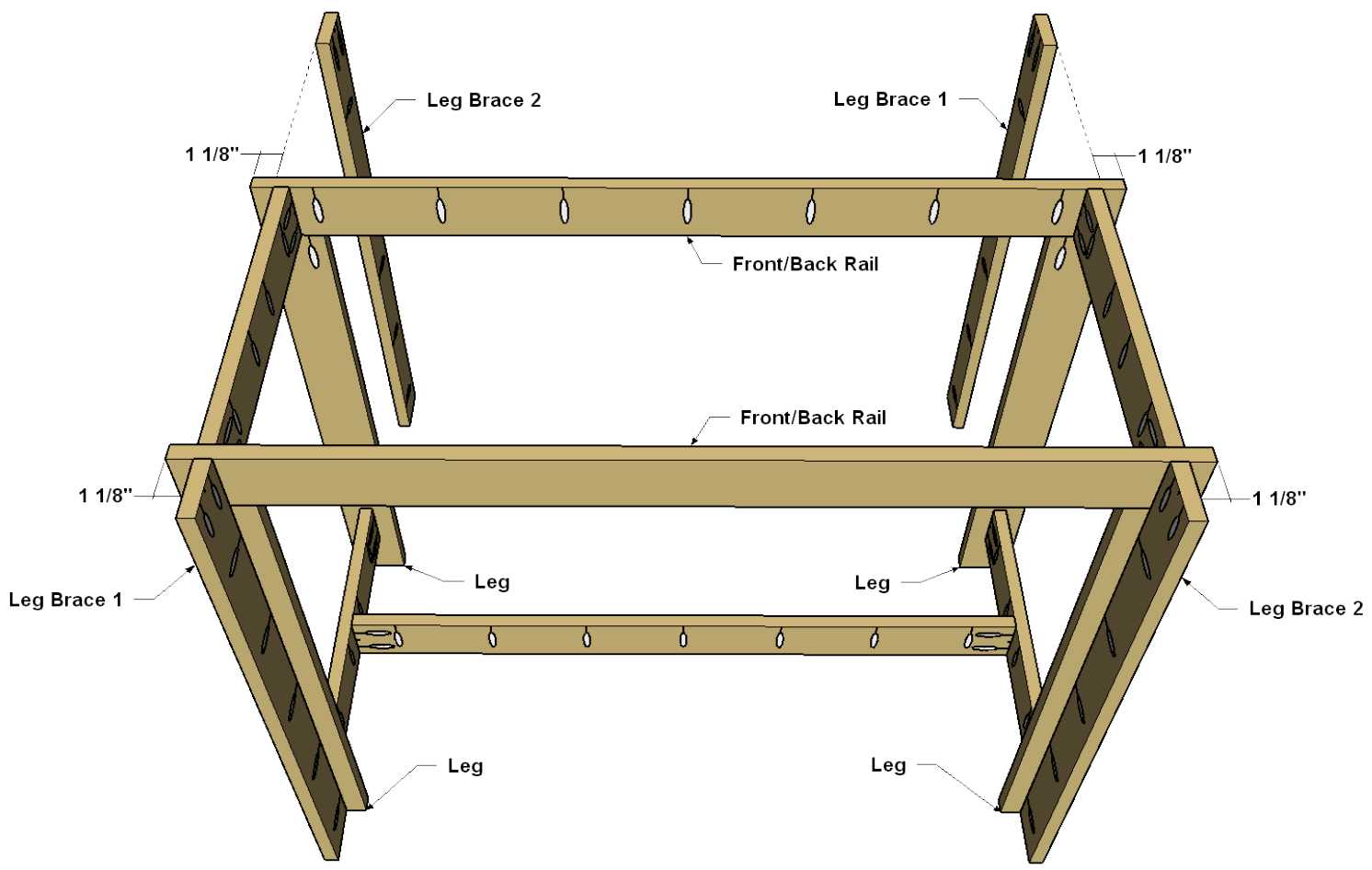
9 Make the Leg Braces

From your four remaining 3"-wide plywood strips, cut four Leg Braces to final length. Before you drill the pocket holes, note that you'll need to make two pairs of Leg Braces, as shown. All four have pocket holes in the ends, but the pocket holes along the edges need to be mirror images of each other. Once you've laid the pairs of Leg Braces out, drill the pocket holes, and then sand the pieces smooth.



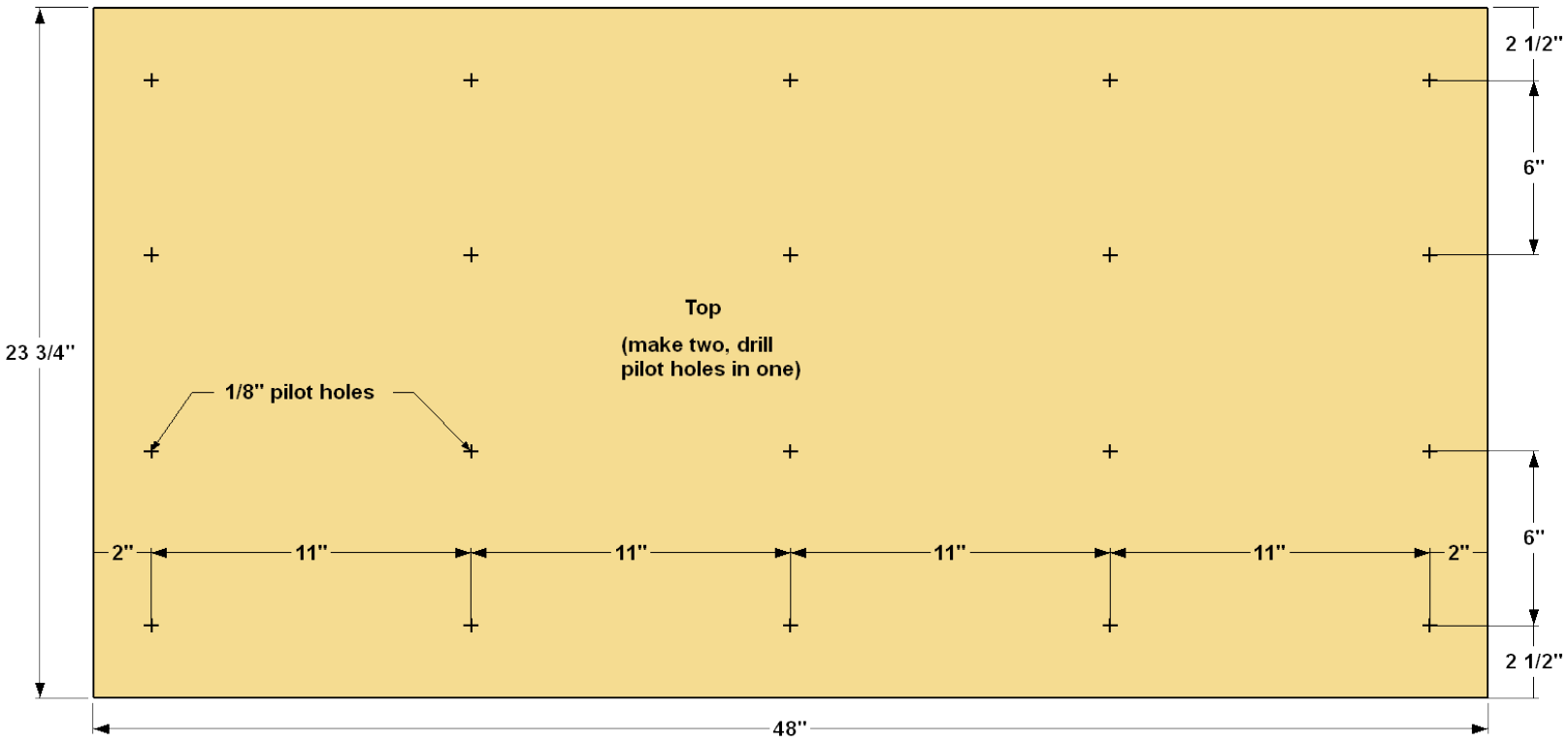
10 Attach the Leg Braces

Now you can attach the Leg Braces to the bench base assembly. Orient them, as shown, so that the pocket holes all face inward. Then attach the Braces using 1 1/4" coarse-thread Kreg Screws.



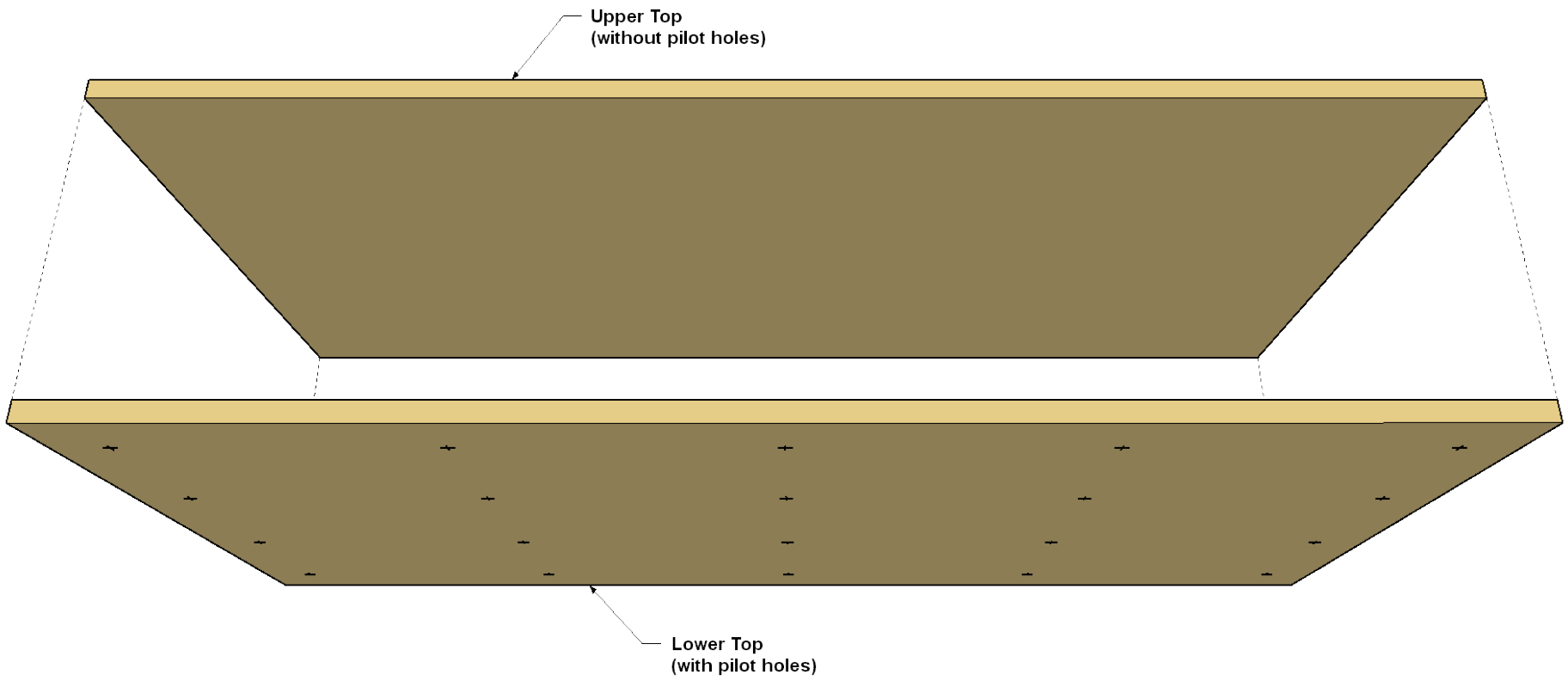
11 Make the Top

The two-layer top adds lots of strength to the bench. To make it, you'll need to screw together the two Tops that you cut earlier. So, in just one of the Tops, drill a series of 1/8" holes, as shown. Then, on the exit side of the hole, sand if needed to clear away any blowout around the holes that could prevent the two layers from fitting together tightly.



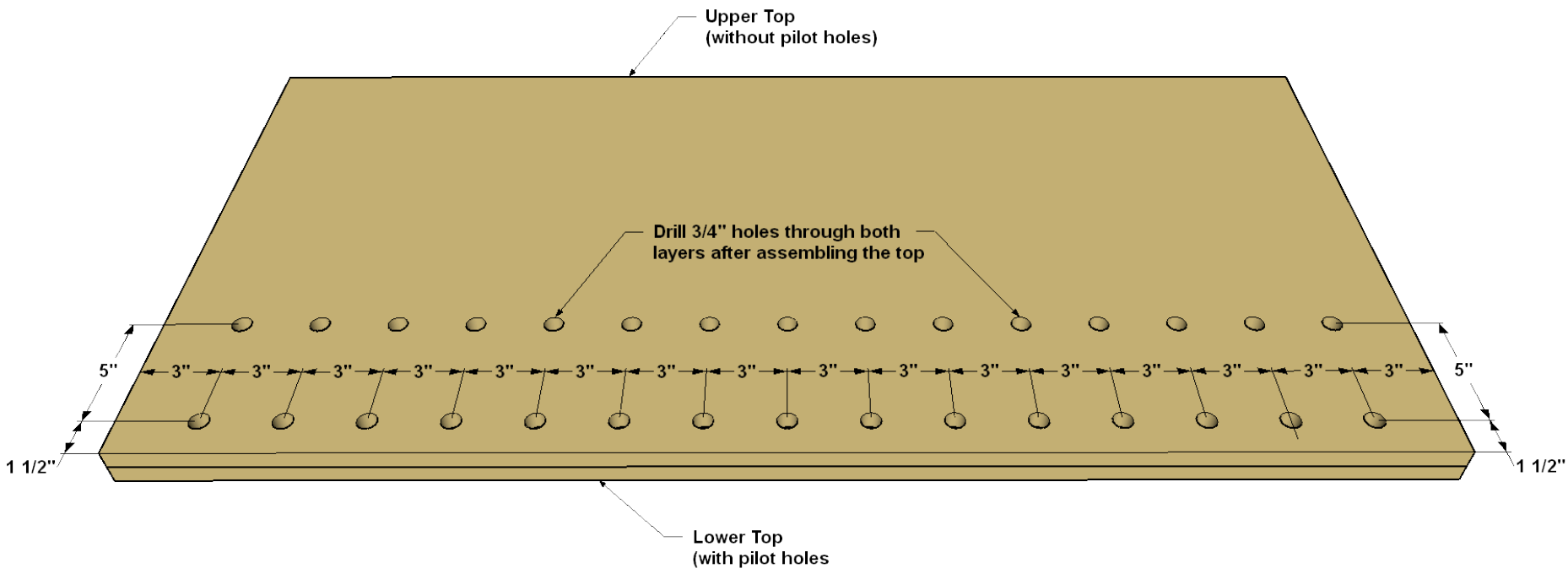
12 Assemble the Top Layers

Now you can bring the two Top layers together. To do that, clamp the two pieces so the edges are as flush as possible, and then drive in 1 1/4" coarse-thread Kreg Screws. Even though the screws aren't being used in pocket holes here, they work great for attaching the two pieces. Sand the edges smooth after assembly, and sand the upper face, if needed.



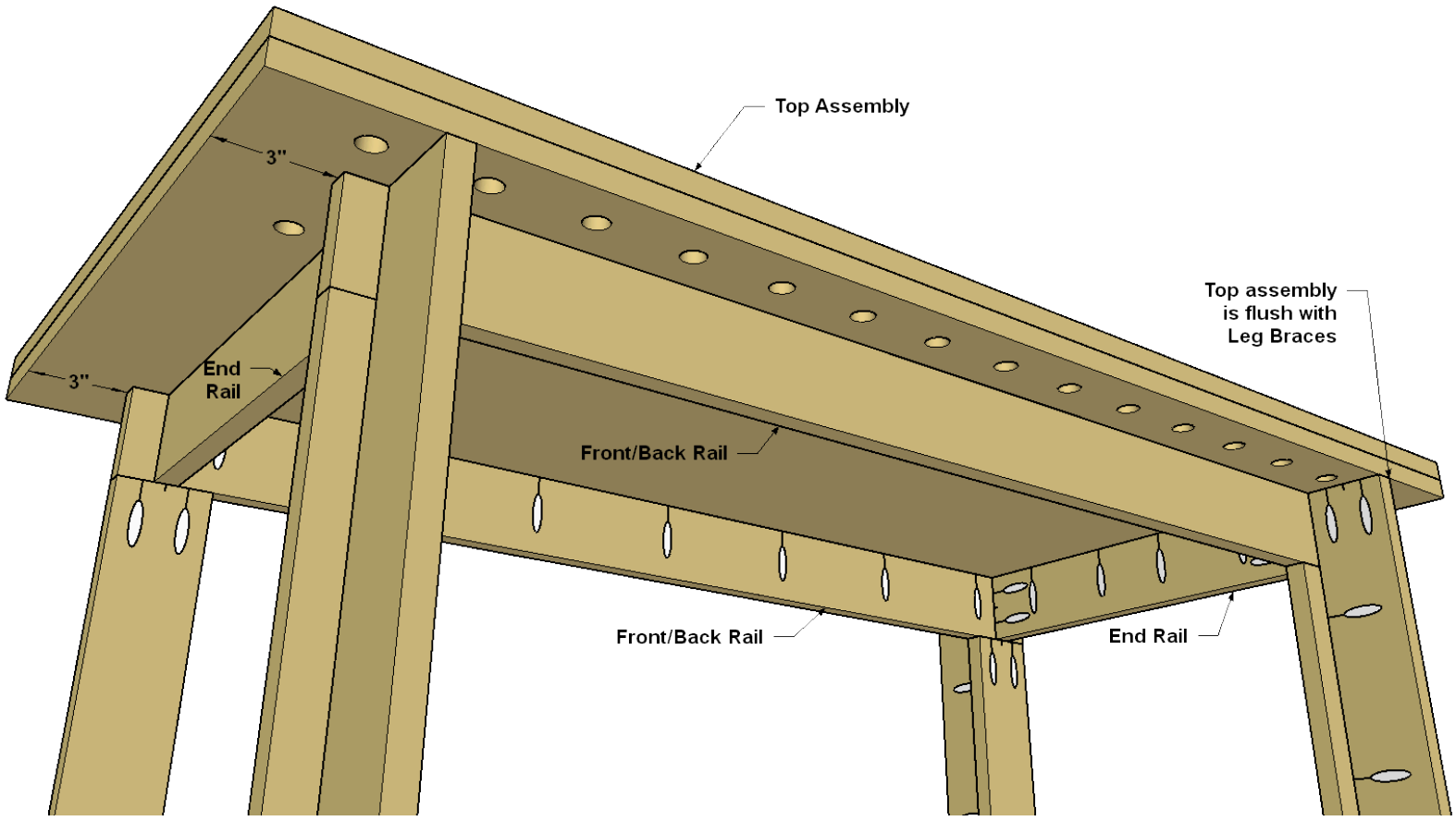
13 Drill Dog Holes in the Top

We chose to drill a series of holes in our bench top to improve clamping versatility. The holes receive bench dogs that come with the Kreg Clamp Vise we installed, and they also work with other clamping tools. If you're adding dog holes, first lay them all out, as shown. Then place your top assembly—upper face up—on a scrap of plywood or something else you can drill into. That way, as you drill the holes, you won't get as much blowout on the underside. Then you can drill all of the holes using a 3/4" spade bit. A super-slick tool for doing this is a portable drill guide, as shown in the tip below.



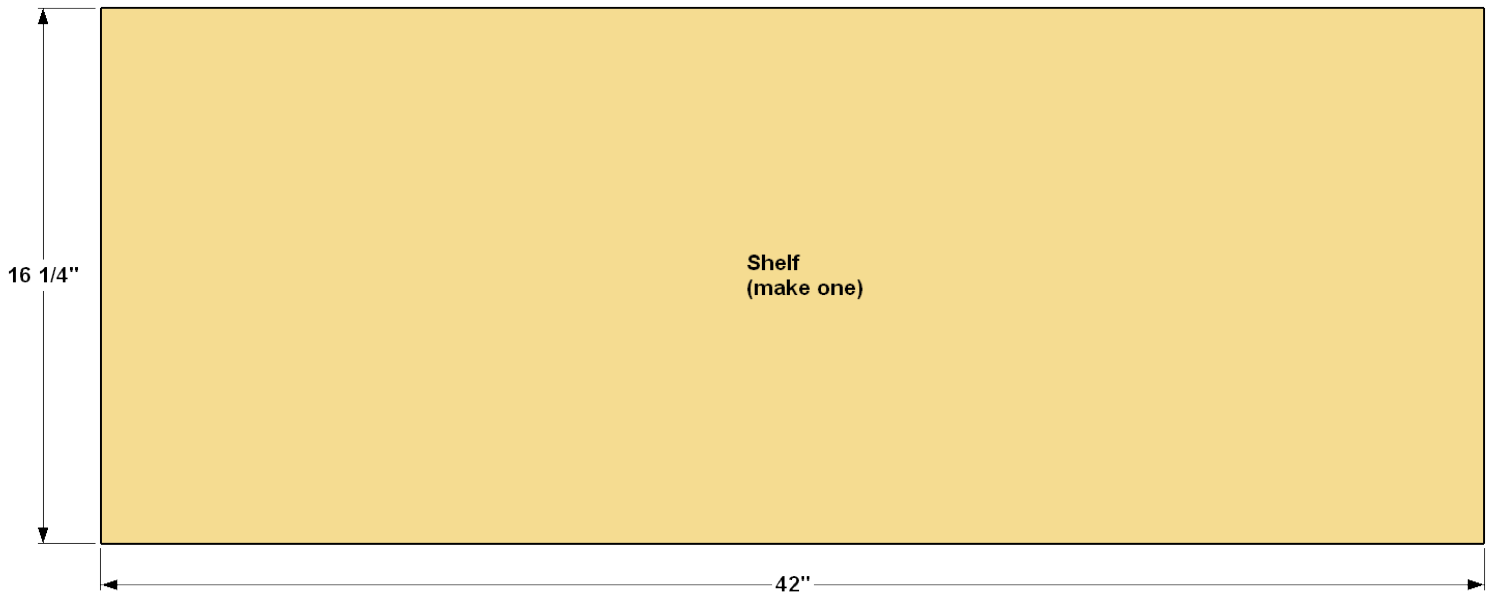
14 Attach the Bench Top

With the top assembly complete, you can attach it to the bench base, as shown. You'll see that it fits flush with the Leg Braces at the front and back, and overhangs the bench base equally on each end. Use 1 1/4" coarse-thread Kreg Screws to attach the top to the Front and Back Rails, the End Rails, and the Leg Braces.



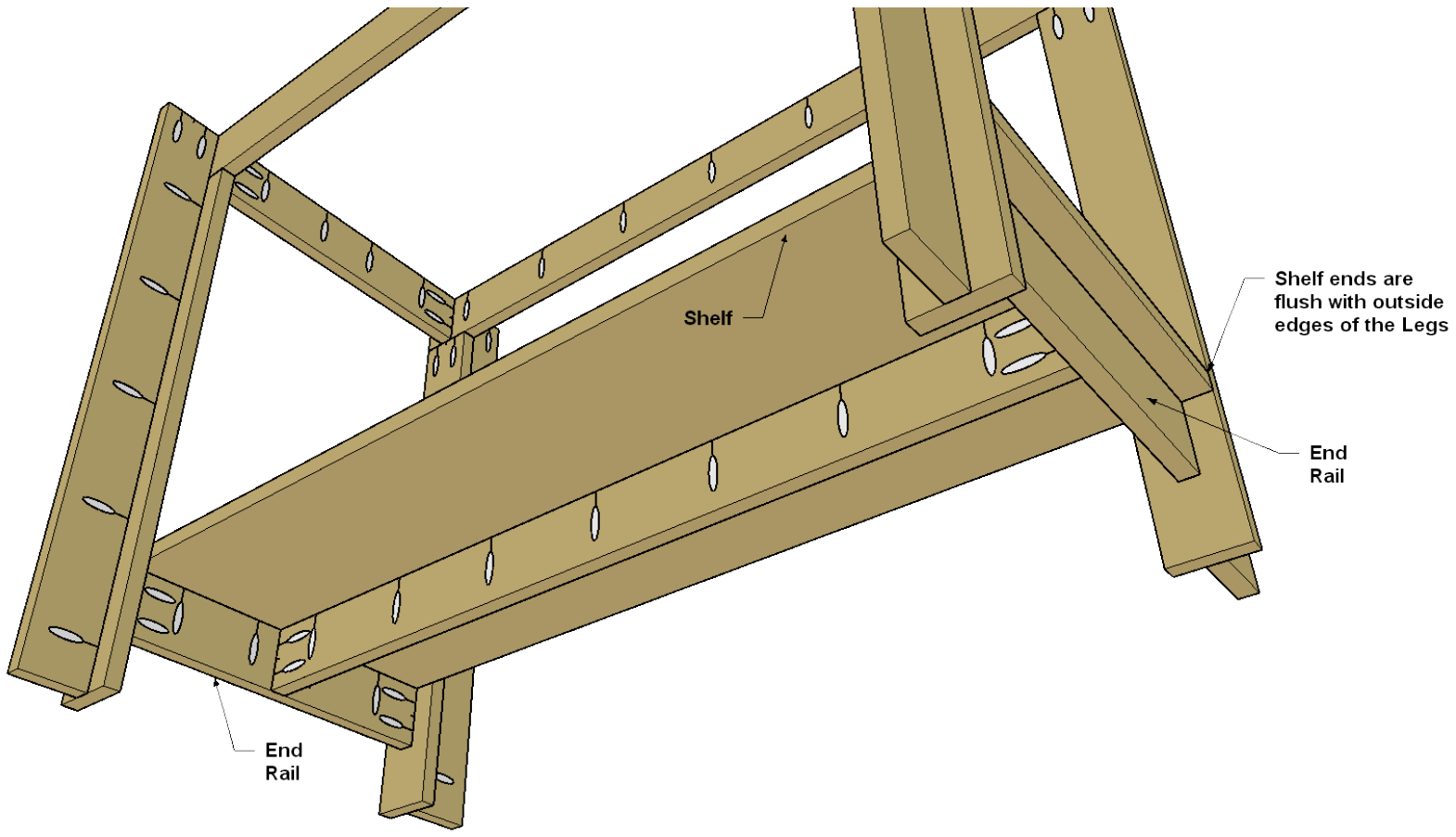
15 Complete the Shelf

If you didn't do so earlier, cut the Shelf to final length now, and then sand the faces and edges smooth.

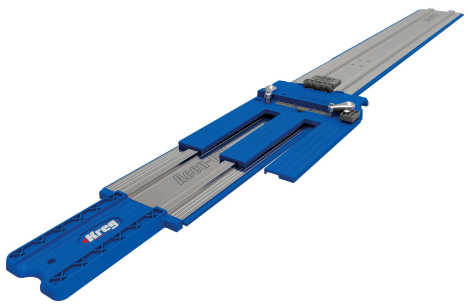


16 Attach the Shelf, Finish, and add Hardware

All that's left to do now is attach the Shelf using 1 1/4" coarse-thread Kreg Screws. Then you can apply a finish to your bench, if desired. Though it might seem like overkill, adding finish to a bench helps it last longer, and makes it easier to clean. We wiped a coat of oil finish on the top and the shelf. We also stained the base structure to give the bench a bit of style, and then mounted the Clamp Vise.



Featured Products



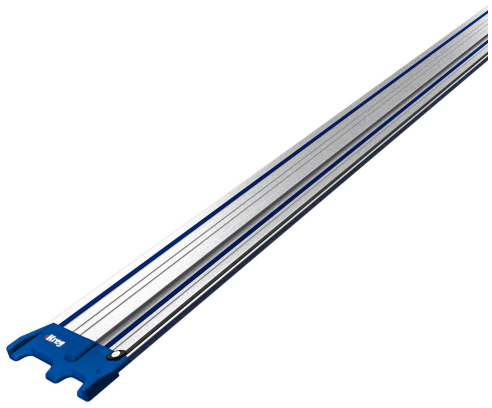
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