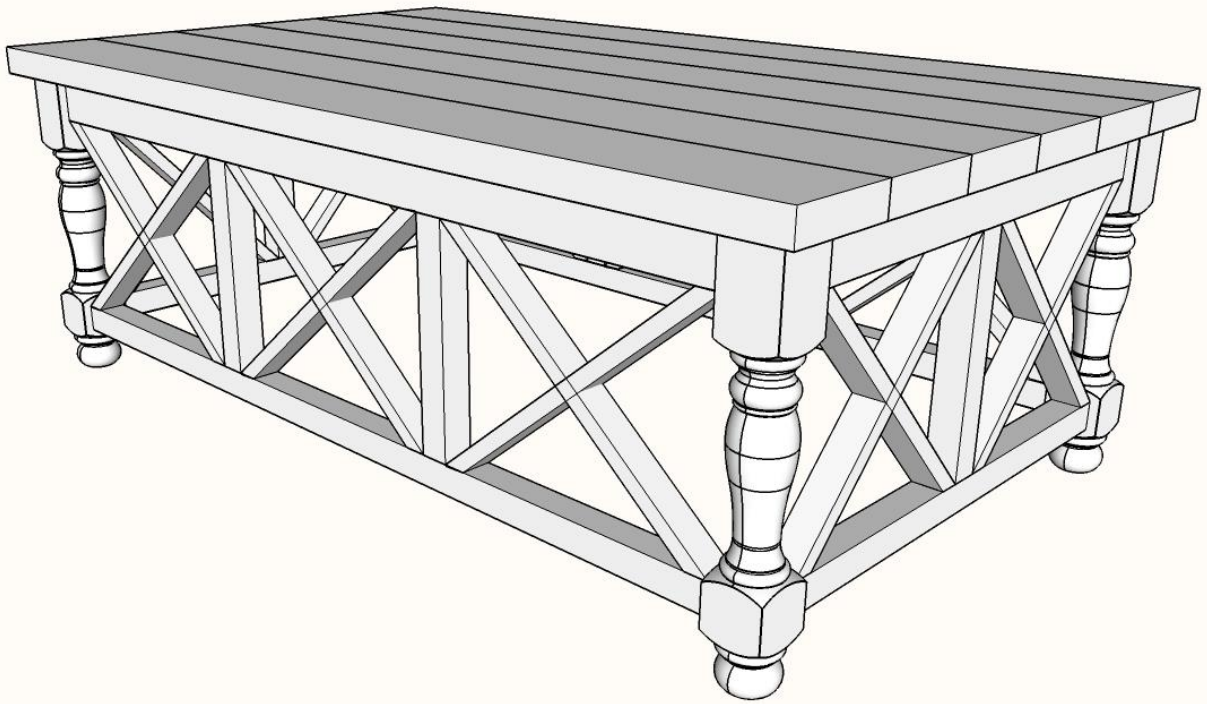


DIY X Panel Coffee Table



***Before beginning this project, please read through all of the plans as well as the blog post associated with this project. Always use safety precautions whenever using power tools and follow the manufacturer's suggested guidelines. Make sure to wear proper safety protection (eye protection, hearing protection, etc.) before beginning any project. Cut all pieces per the measurements in the plans, unless noted otherwise.**

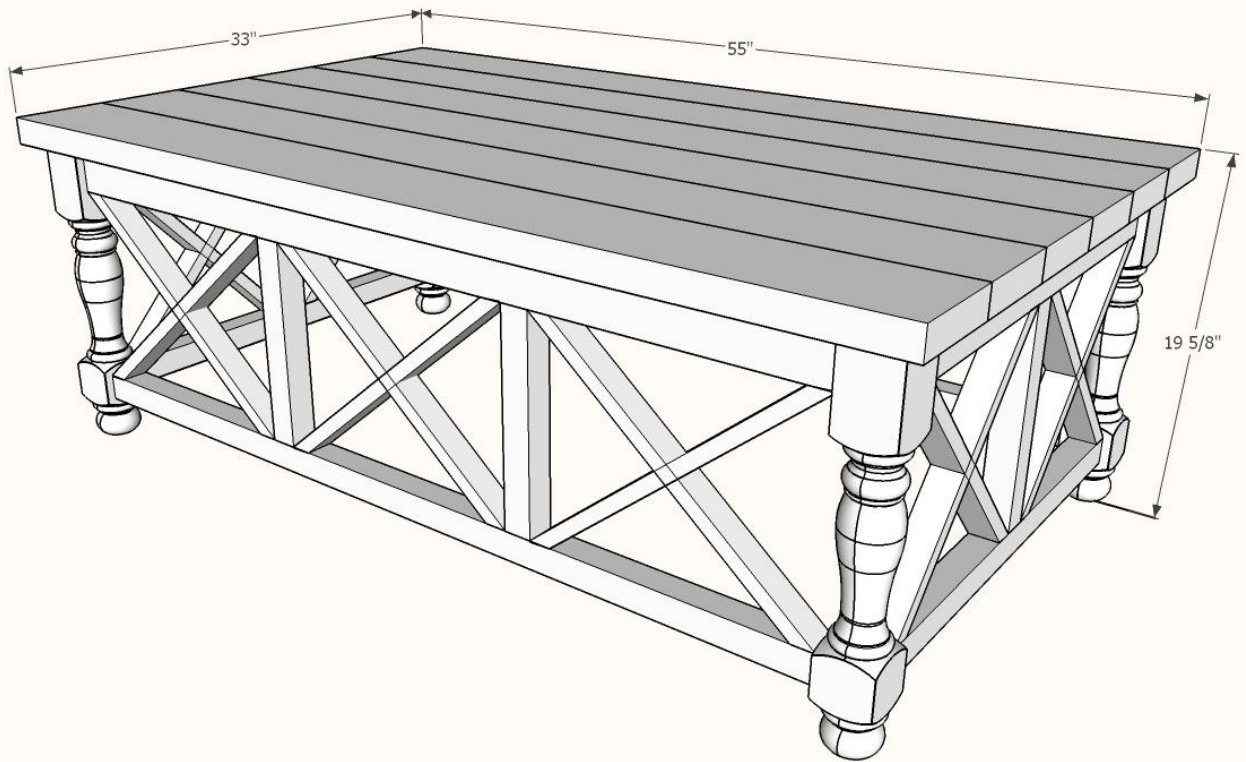
Materials and Tools:

- 6 – 2x8 boards @ 8' long (or 6 – 2x6 boards if not ripping down)
- 2 – 2x4 boards @ 8' long (or 2 – 2x3 boards if not ripping down)
- 3 – 2x3 boards @ 8' long (or 3 – 2x2 boards if not ripping down)
- 4 – 1x2 boards @ 8' long
- 4 – 18" x 2 ¾" Heritage Coffee Table Legs in knotty pine from Osborne Wood Products
- Kreg Jig
- Miter Saw
- Table Saw (if ripping boards down)
- Drill
- Orbital sander
- 120 and 220 grit sandpaper discs
- 220 grit sandpaper sheets
- 2 ½" pocket screws
- 1 ¼" pocket screws
- 1 ½" pocket screws
- Desk top fasteners
- 1 ¼" wood screws
- Wood glue
- Clamps
- Offset drill attachment
- Wood Finish of Choice (I used Minwax stain in Golden Oak, Weathered Oak, and Special Walnut)
- Polycrylic
- HomeRight Finish Max

Cut List:

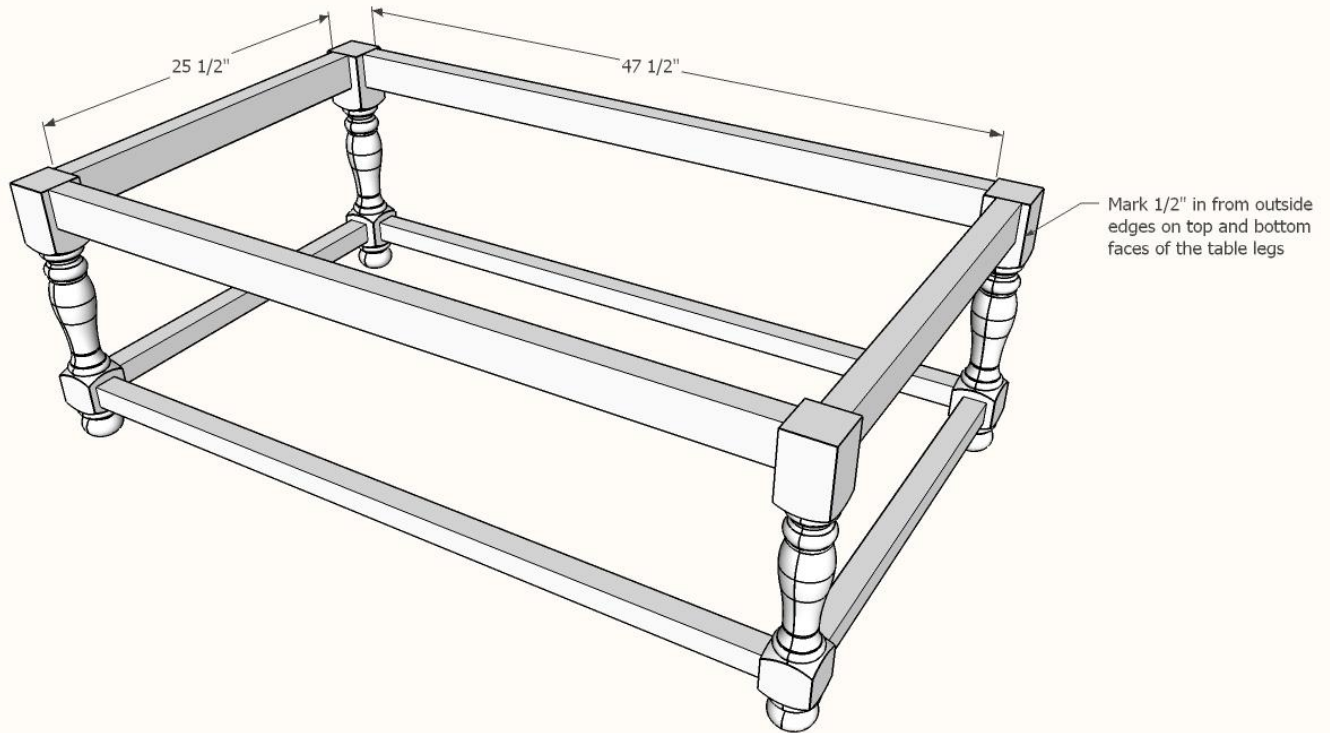
If ripping down wood for this project, rip the boards on each side to square up the edges. The 2x8 boards should be 5 ½" wide (2x6), the 2x4 boards should be 2 ½" wide (2x3), the 2x3 boards should be 1 ½" wide (2x2).

- 6 – 2x6 @ 55" long
- 2 – 2x3 @ 47 ½" long
- 2 – 2x3 @ 25 ½" long
- 2 – 2x2 @ 47 ½" long
- 2 – 2x2 @ 25 ½" long
- 6 – 2x2 @ 11 ½" long
- 20 1x2 measured and cut to size for Xs



The finished dimensions of the coffee table will measure 33" wide by 55" long and 19 5/8" high.

STEP 1:

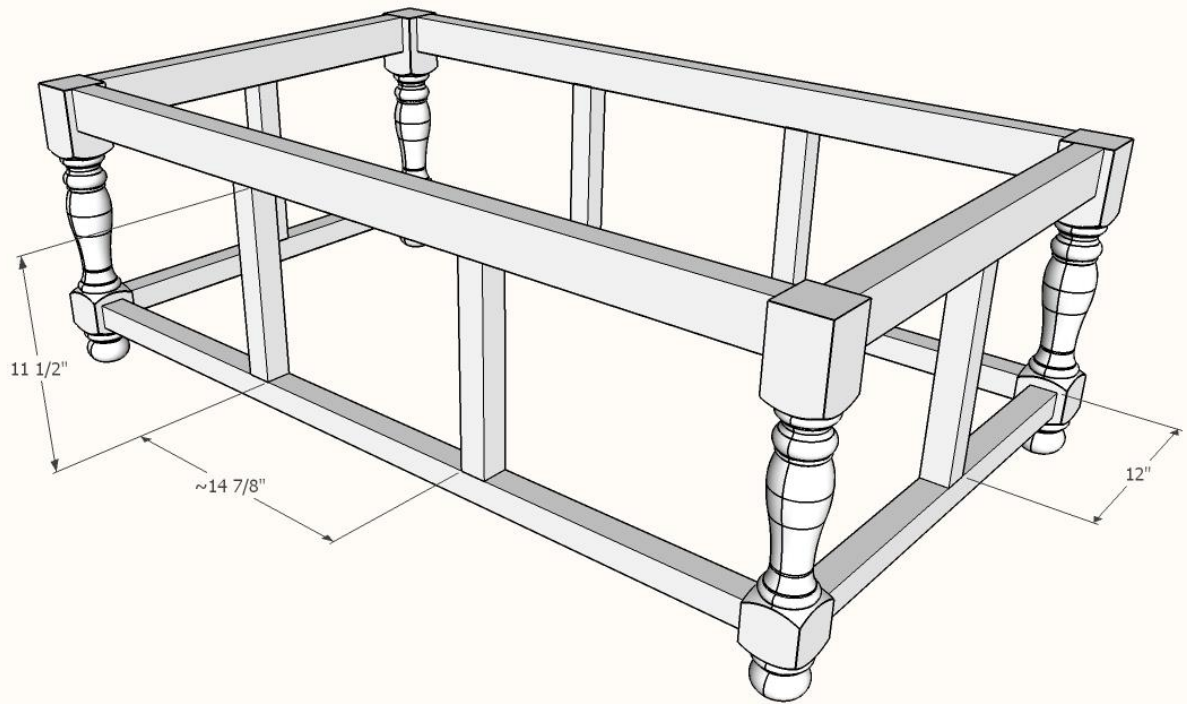


Place the table legs upside down on a flat, even surface. Mark with a pencil $\frac{1}{2}$ " in from the outside corners of the upper and lower flat faces of the table legs.

Drill $1\frac{1}{2}$ " pocket holes into each end of the 2x3 aprons and 2x2 stretchers. Apply wood glue to each end of the 2x3 aprons and place on the marks $\frac{1}{2}$ " in from the outside corners. Clamp into place and attach to the legs with $2\frac{1}{2}$ " pocket screws.

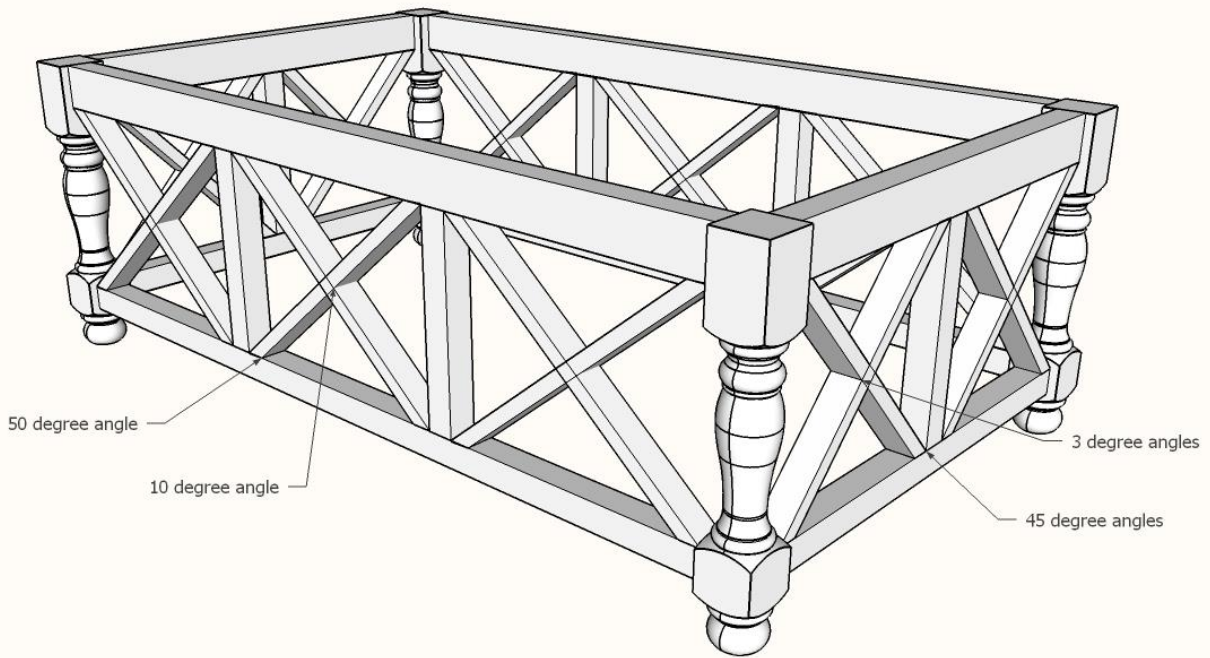
For the 2x2 stretchers, place a 2x2 vertical piece ($11\frac{1}{2}$ ") at each end of the 2x3 aprons to act as a spacer. Apply wood glue to the end of each 2x2 stretcher and set in place, $\frac{1}{2}$ " in from the outside corners. Clamp and attach with $2\frac{1}{2}$ " pocket screws. NOTE: I made sure the pocket holes were facing down so when the table is turned right side up, they won't be visible.

STEP 2:



To install the vertical 2x2 pieces, drill 1 1/2" pocket holes into each end. For the sides of the coffee table, they will be spaced approximately 14 7/8" apart. For the ends of the coffee table, they will be centered between the legs with approximately 12" on each side. Clamp and screw into place with 2 1/2" pocket screws.

STEP 3:



For the Xs, start with placing a 1x2 against the side of the coffee table at an angle from corner to corner. With a pencil, mark the angles/ends to determine the length of the 1x2 pieces. Adjust your miter saw to find the proper angle of the cut. In this case, the angle was 50 degrees for the ends of each X. Cut the long piece first and test the fit. It is better to cut it slightly longer and shave off a little bit if needed. Once the length is determined, use this piece as a template for the remaining long pieces for the sides, testing the fit for each piece. Do the same for the short pieces of the X. Line it up perpendicular to the first piece and mark in the middle with a pencil where the cuts should be. Again line these up on the miter saw to determine the angle. I found this to be 10 degrees. Cut the pieces and test everything for proper fit.

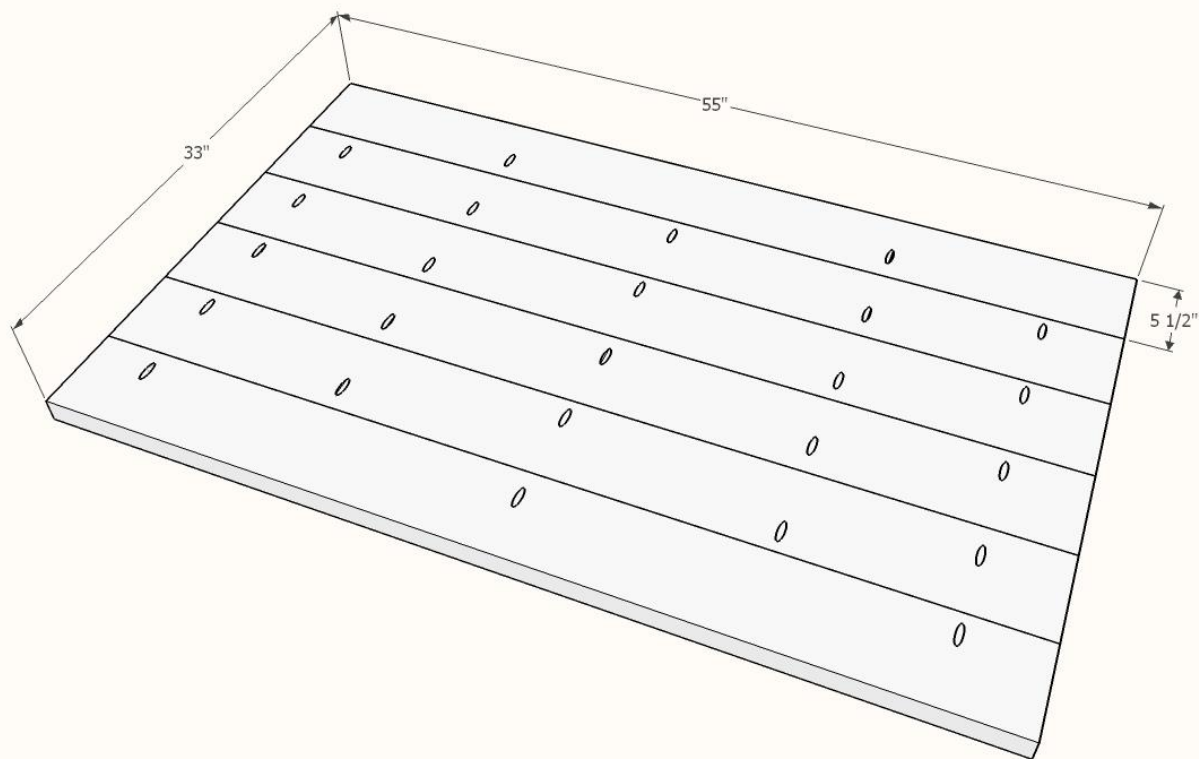
Follow these same steps for the ends of the coffee table. The angles for the X are approximately 45 degrees on the ends and 3 degrees in the middle.

To drill the pocket holes into the ends of each piece, set the stop collar on the Kreg drill bit at $\frac{3}{4}$ " thickness. For the larger angles, set the kreg jig at $1\frac{1}{8}$ " thickness. Drill the pocket holes so that they will end up being on the underside of each of the X pieces. For the inside ends of the X pieces (short pieces), set the Kreg jig at 1" thickness. Drill pocket holes, again on the underside of those pieces.

On the sides, for the 50 degree angled ends, use $1\frac{1}{2}$ " pocket screws. For the center joint, use $1\frac{1}{4}$ " pocket screws. Partially screw each screw in using an offset drill bit attachment to hold the pieces in place. Then screw all of them in fully.

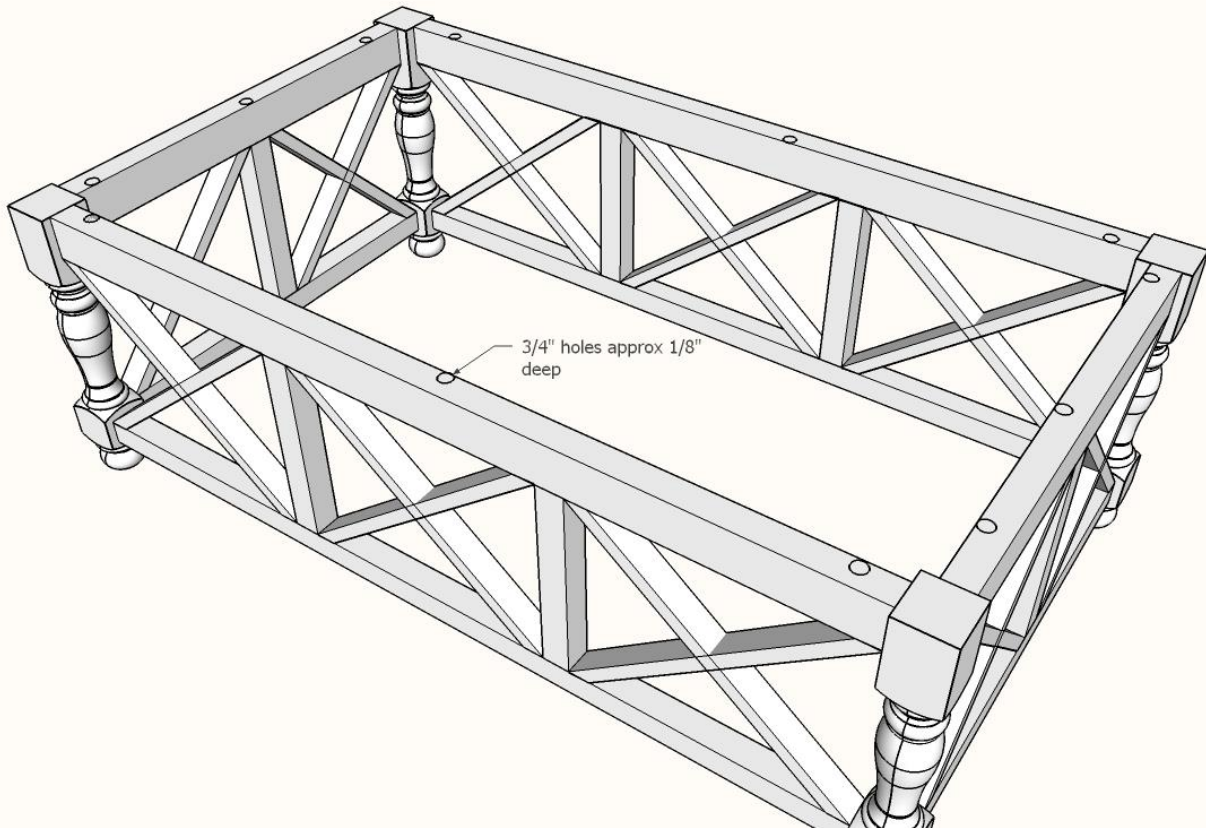
Repeat the above steps for the ends of the coffee table, using only $1\frac{1}{4}$ " pocket screws for the X pieces.

STEP 4:



To assemble the top, drill 1 1/2" pocket holes into each board as shown above. Align the boards so that they fit flush together. Glue and clamp together, then attach the boards with 2 1/2" pocket screws.

STEP 5:



Attach the top with desk top fasteners. Using a $\frac{3}{4}$ " paddle or forstner bit, drill holes at the inside edge of the apron pieces approximately $\frac{1}{8}$ " deep (see diagram above). Test the desk top fasteners for a flush fit and adjust the depth as necessary. Attach to the table aprons using $1\frac{1}{4}$ " wood screws. Place the top onto the base and ensure it is centered with an even overhang all around. Attach the top using $1\frac{1}{4}$ " wood screws. Finish as desired.