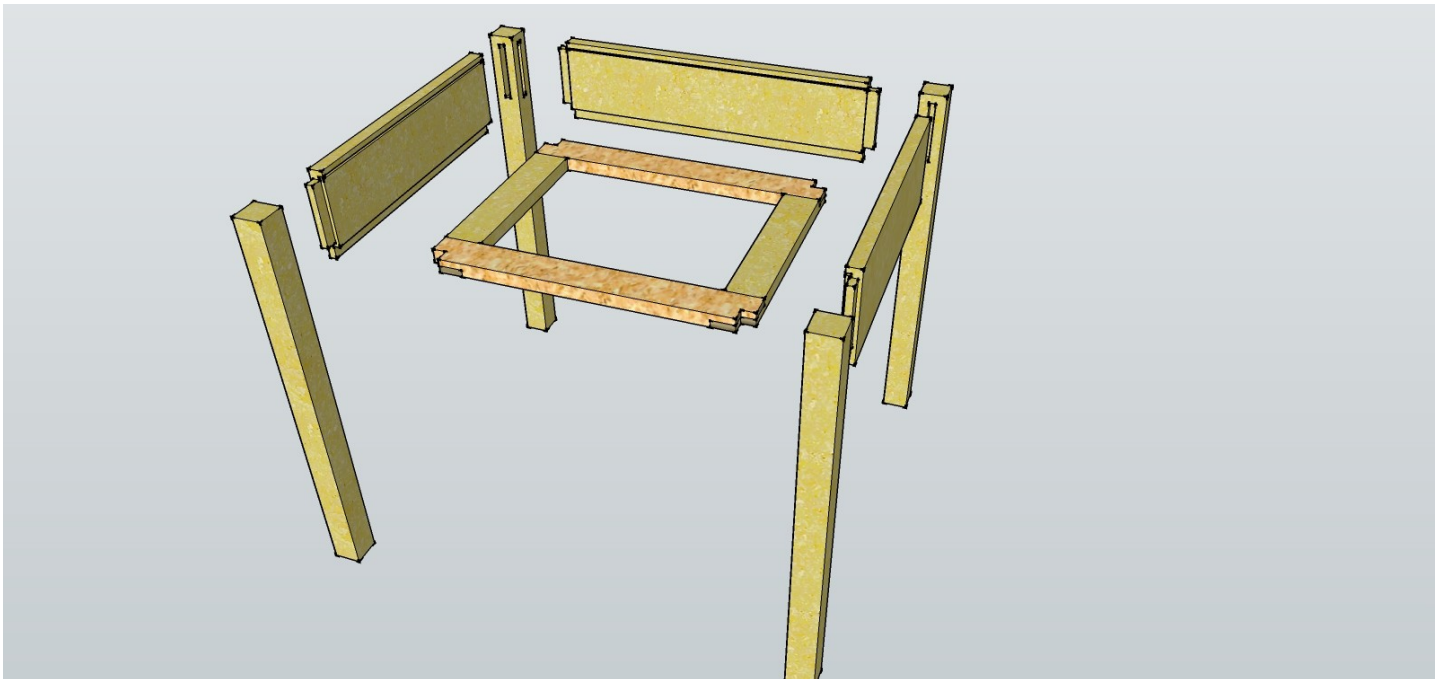


Senior Table

This is a difficult project that will require you to read AND understand these instructions.

Here is a **cutting list** of part sizes

Part	Quantity	Size
Legs	4	1½" x 1½" x 24"
Sides	2	¾" x 5" x 16¾"
Back	1	¾" x 5" x 19¾"
Bottom frame sides	2	¾" x 2" x 18¼"
Bottom frame front and back	2	¾" x 2" x 21¼"
Top	1	¾" (or more) x 23½" x 20½"
Drawer sides	2	½" x 4¼" x 15"
Drawer front	1	½" x 4¼" x 18½"
Drawer back	1	½" x 3¾" x 18"
Drawer bottom	1	¼" ply 14" x 18"



Step 1: Breaking out pine stock for legs.

Cut 4 pieces $3\frac{1}{2}$ " wide and 25" long.

Joint one face of each piece.

Face glue 2 pieces together (jointed faces) and repeat with the other 2 pieces.

The next day remove the squeezed out glue and joint one side and one face of each glue up.

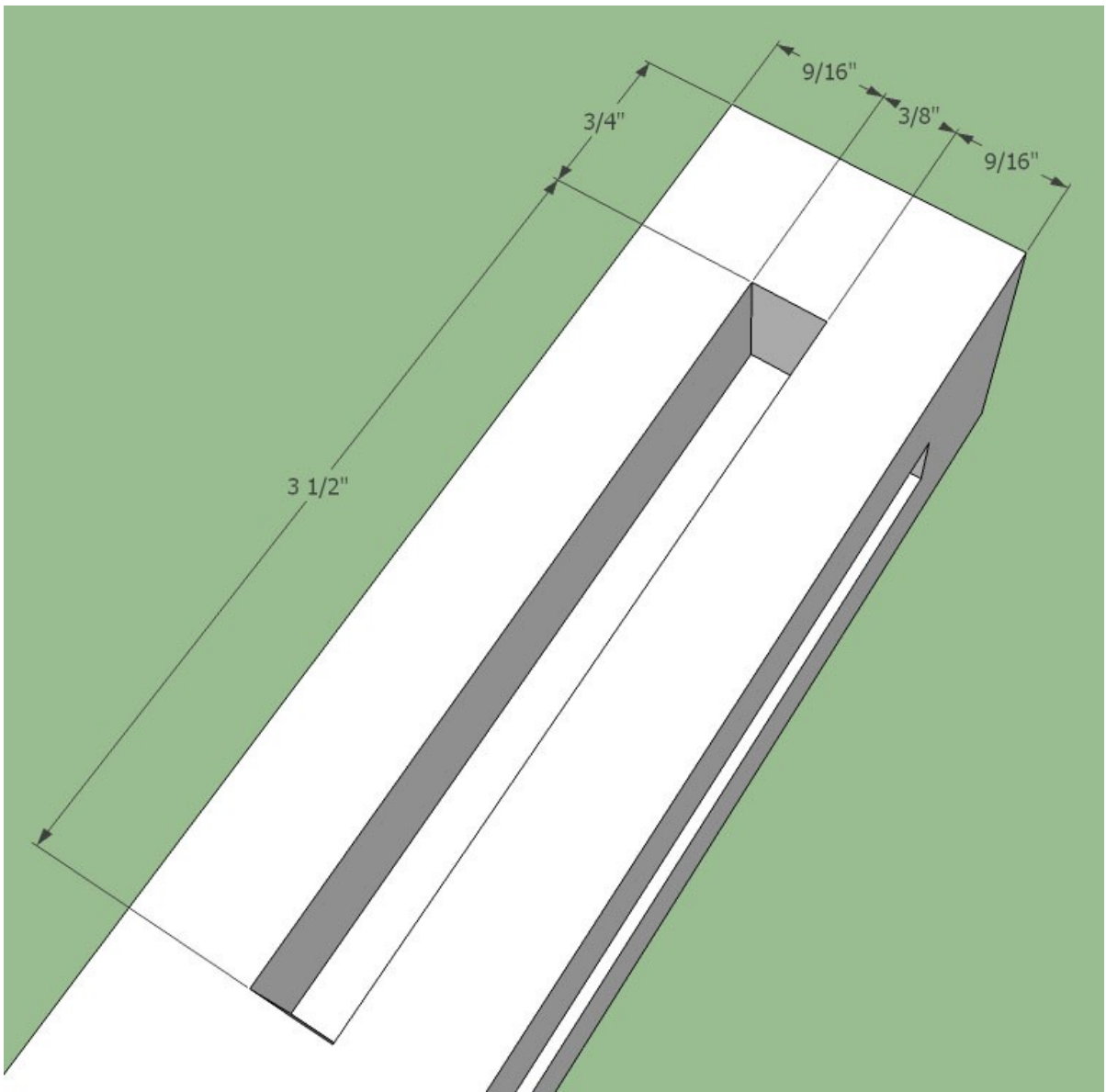
Thickness plane to exactly $1\frac{1}{2}$ " thick.

On the table saw rip 2 pieces from each glue up to $1\frac{1}{2}$ " wide.

Trim length to 24".

Mark 2 mortises on each leg as shown below. Make sure you mark the top of your legs so that you mortise the correct faces!

Carefully cut mortises with a $\frac{3}{8}$ " bit.



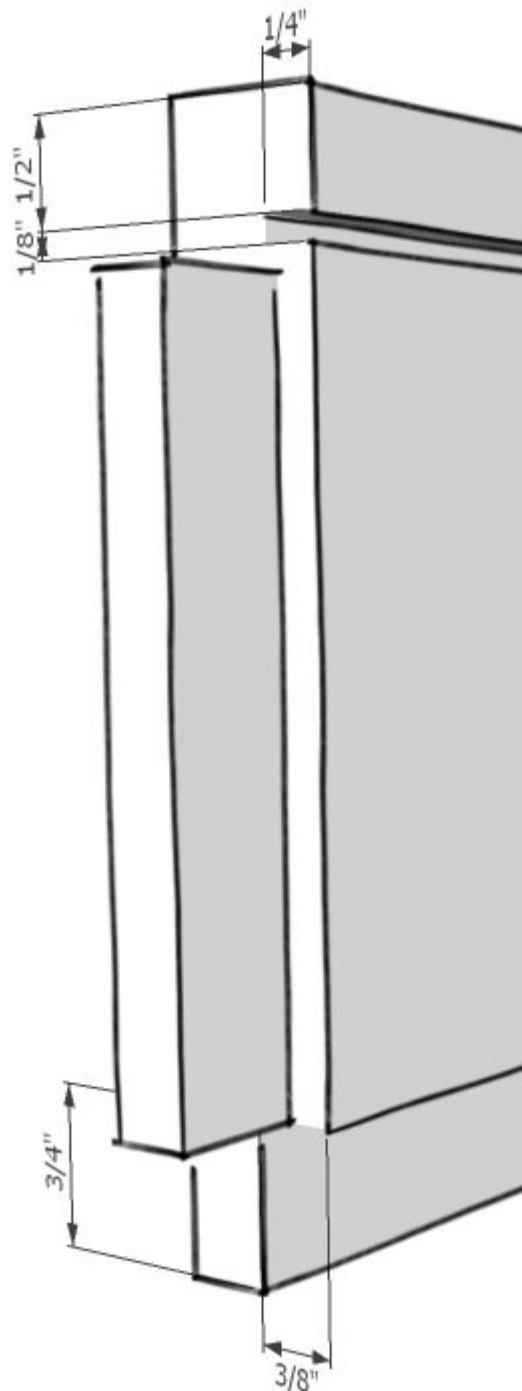
Step 2: Making the sides and back

Break out and machine stock to exact sizes from the cutting list for the sides and back pieces. Mark the following cuts on each piece BEFORE you start so you don't get confused! Use dado saw to cut 5/8" tenon on each end of all 3 pieces. Check for fit in the mortise hole before you do all 6.

Cut 3/4" wide and 3/8" deep rabbet at the inside bottom of each piece.

Cut a 1/8" wide (single blade on regular table saw) 1/4" deep dado, 1/2" down from the top on the inside of each piece.

Assemble legs, sides, and back. Make sure ALL pieces fit tightly with no gaps.



Step 3: Making the Bottom Frame

Break out the 4 pieces for the bottom frame as per the cutting list. Double check the sizes just in case your table is slightly different than above.

Set up the dado machine to make a $\frac{1}{2}$ lap joint for the corners of your frame:

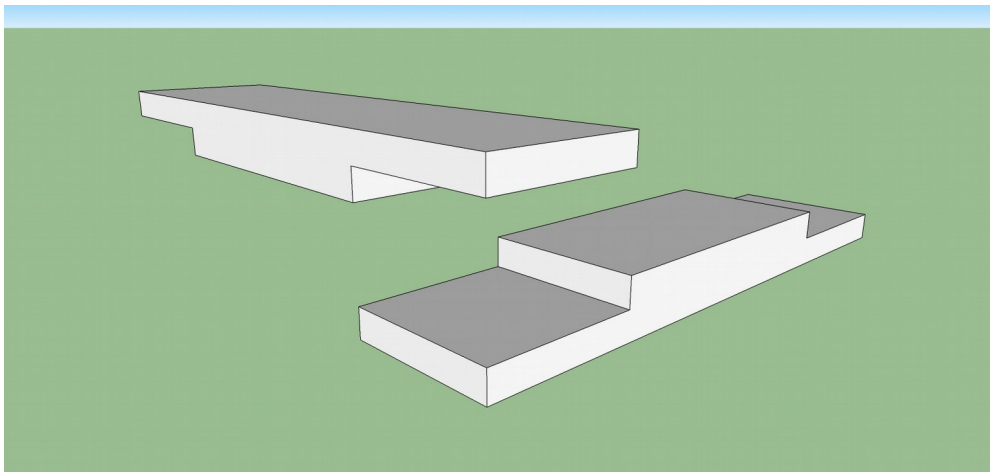
Do this by rising the dado blade so that it cuts exactly $\frac{1}{2}$ way through the pieces – check with a scrap piece the same thickness!

Set the fence so that it is exactly the width of the pieces away from the blade.

Use the crosscut fence to remove the material from the board ends by making cuts gradually moving away from the fence until there is no more wood to move.

Check fit after 2 cuts and adjust as necessary.

The corners should fit together like this when done:



Glue together the frame pieces (make sure to check for 90 degree corners!)

When dry (the next day), sand flat if necessary.

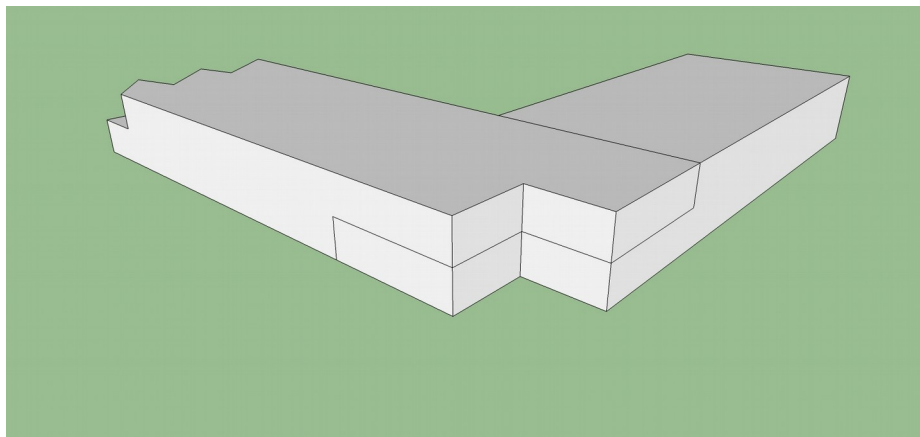
You will need to notch out the corners of the bottom frame to fit around the leg corners.

Carefully measure the distance on your legs from the inside edge to the back of the bottom dado in the sides and back – this should be $\frac{3}{4}$ " but make sure yours matches.

Mark on the corners of the bottom frame your measurement.

Carefully use a bandsaw to cut out the notches.

Your bottom frame should fit perfectly into the table.



Assembly:

Sand all your pieces before glue.

First glue the sides into the legs and clamp. Check for square!

Glue the back into the legs.

Glue the bottom into the

Step 4: Making the top:

The top can be made whenever you are waiting for glue to dry when assembling another part of the table.

Measure your table width from outside of leg to outside of leg and add 2".

Measure your table depth the same way.

Break out strips a little longer than the width (here is a great place to use up all the left over strip from your legs, sides, back, and frame.)

Your strips should run sideways on the top NOT front to back.

Joint all edges and dry clamp to make sure you have enough pieces to be just deeper than your measured.

If you're happy with the dry clamp, glue up your pieces. (make sure the pieces are flat!!)

When dry (the next day) use a scraper to remove any squeezed out glue and run through the thickness planer and/or sander to get flat – keep as thick as you can.

Rip and crosscut to correct size.



Making the Drawer:

The drawer will have several different joints. Make sure you measure and mark your joints before you cut them.

Break out your drawer pieces as per the cutting list but check your actual table spaces in case they are different.

Make sure the dovetail jig is setup properly and have Mr. B show you how to cut “half through” dovetails on the front and side pieces. These are slightly different than the dovetails you did last year on your senior box project.

Cut the 1/2” dado on the inside rear of the sides.

Cut the 1/8” dado 1/4” from the bottom on the inside bottom of all the pieces using a regular table saw.

Assemble your pieces, measure the inside dimensions, add 1/2” to the length and width, cut your plywood to this size. Sand to fit.

Check fit in table, glue all joints except bottom (but make sure it is in the drawer!). Check for square before leaving glue up to dry. Air nail bottom to back from underneath.

