

End Table Procedure - Top

1. **Consult your 'Cut Plan'** and obtain enough material to make the 4 top pieces.
2. **Prepare all boards**
 - a. Use the Mitre Saw to 'rough cut' four (min. width 3.75") pieces 19"
 - b. Use the Jointer to machine a 'face side' and 'face edge' on all pieces
 - c. Use the Table Saw to cut the width of each piece to 3 3/8" (stow offcuts appropriately)
 - d. Use the Thickness Planer to machine the boards to 3/4" thickness

3. Create Mitres

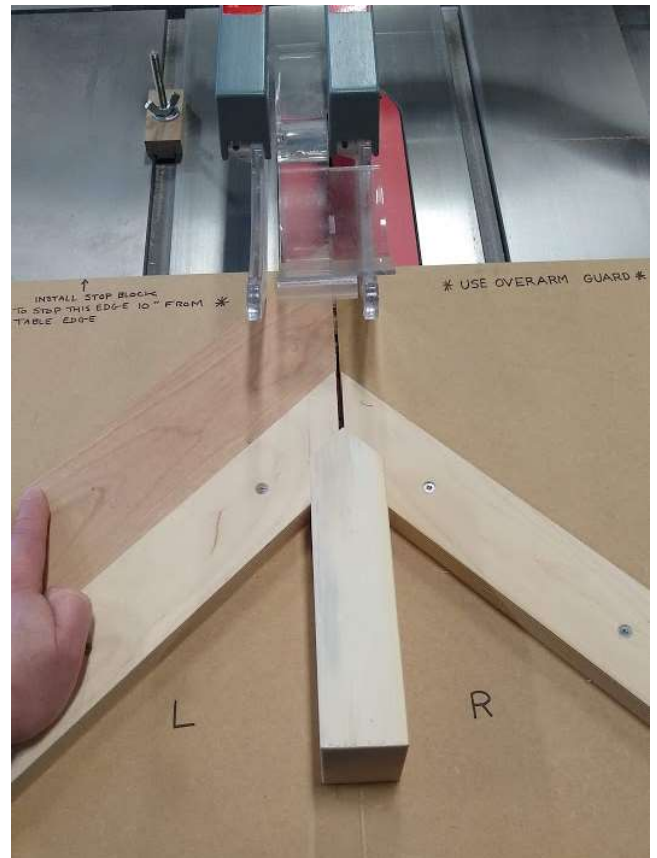
- a. Inspect your pieces. Write 'Top' on the side that you would like to have for the top of your table. Make sure this is up when cutting your mitres to minimize the risk of tear-out.



- b. Using the 'Mitre' cross cut sled, place the board on the LEFT side to create 45 deg. mitres on each board's end. Ensure there is not dust interfering with the registration of the work! Mark all mitres 'L' for left on the face of each board.

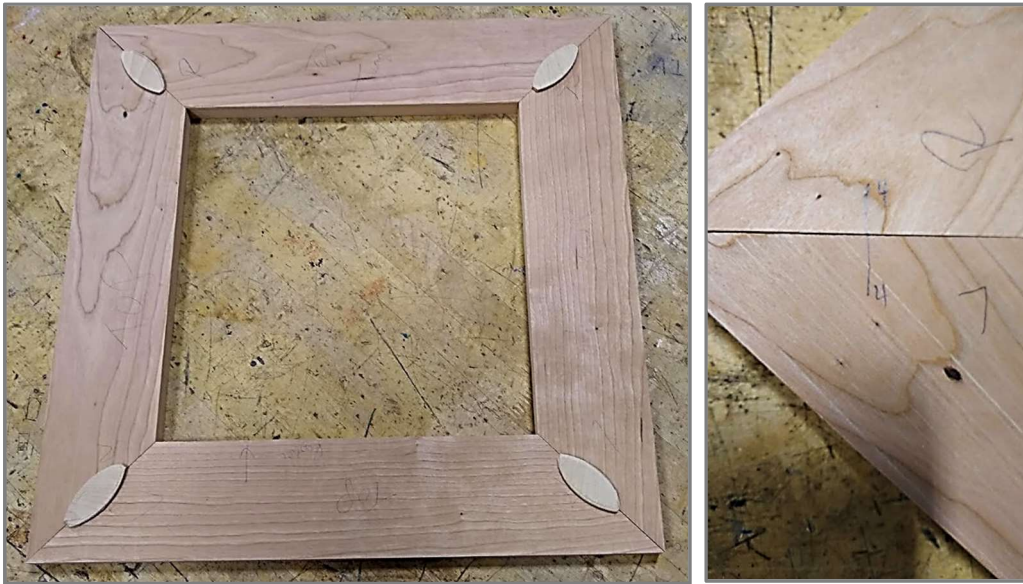
- c. Use the RIGHT side of the cross cut mitre sled to create an opposing mitre on each board. BE Certain to place the board in the sled carefully, ensuring that there is not dust prior to doing so. ACCURACY here is critical!. Mark all mitres 'R' for right on the face of each board.

- d. Test - assemble top pieces (right mates with left) and 'dry clamp' to ensure joinery is accurate



4. Biscuiting

- a. Locate the best position for a biscuit (consider rabbet to come for glass & possible 'spline')
- b. Make a single pencil line across each mitre to represent the centre position of the biscuit. Number the lines (1,2,3,4) on both ends for reference.
- c. Ensure the biscuit joiner is adjusted properly then, with the work clamped securely to a work bench, create the slot for each biscuit on the mitred end of each board.
- d. Insert biscuits and dry fit all mitre joints to ensure accuracy



5. Glue Up (BE PREPARED)

- a. Obtain – dry paper towel, wet paper towel, glue, clamp(s), clamp assists, mallet, scrap wood block, waxed paper and glue brush (optional).
- b. Ensure your clamping system is as pre-set as possible and that you are organized
- c. Spread glue on each board's end and in the biscuit slots and place the board ends on 4 pieces of waxed paper to protect the bench from squeeze out
- d. Insert biscuits, assemble by hand and then clamp
 - i. Carefully inspect each mitre for alignment and adjust while glue is still wet
 - ii. Use a block of wood and mallet to ensure the face of each joint is aligned.
 - iii. Write your name and the time of glue up on your work (make it obvious!)
- e. Sand Top Face only to minimize sanding after routing, 80 grit, then 120 grit.

6. CNC Preparation

- a. Sand mitre joints to flatten any misalignment. Inspect top for flatness/warpage. Your top will need to sit absolutely flat on the bed of the CNC for success. Small warpage can be dealt with.
- b. Complete the CNC setup tutorial (VCarve) – *on the class website*.
- c. Follow the step by step setup guide for setting up your work at the CNC Router

- d. After routing, test the insert (ie, glass) to determine success. Adjust if/as required.
7. Chamfering
 - a. At the Table Saw, use the chamfer jig to create chamfers on all 4 under sides of the top. The blade will need to be set to 75 deg. and the fence set such as to leave a 3/8" vertical profile on the edge of the top when done. Test for 3/8" setup using a scrap piece!
 8. Sanding
 - a. Block sand all under and edge surfaces (power sander will ruin your top!). Use 80 grit to remove all blemishes, ie. saw marks, then 120.
 - b. 'Break' all sharp edges using 120 grit paper. Take care to do this evenly.
 9. Finishing
 - a. Obtain teacher permission to move on to finishing
 - b. Apply two coats of finish, letting the first dry then lightly sanding in between.
 - c. Apply a protective layer of 'Minwax' furniture was. Rub in with a small rag, then 'burnish' using a small dry rag. Your project should feel smooth and dry when done.

Top Complete!