

SIMPLY ROUTING

by Mark Eaton

Tips & Projects

From Trash To Table

Use scrap wood and a few router bits

I decided that the front hall of the house needed a new table to put more junk on. I really wanted the table there so that when I walked in I could drop my car keys on it and know that they finally had a home. I have spent far too much time wandering around the house asking everyone, including the cats if they had seen where I left them.

I wandered off to the shop to check my supply of wood and noticed that I had a lot of $\frac{3}{4}$ " narrow oak left from ripping other boards down to size for other projects. Why not turn that possible trash wood into usable stock with my router? I know I'm like most woodworkers when it comes to saving every piece of wood left from a project for another project not yet thought of.

Well, it was finally time to use some of that stock and a reversible glue joint bit was just right for the job. If you have never used a glue joint bit you will probably find it a little frustrating to set up, but with a bit of practice this handy bit will become an indispensable part of your router table.

Don't confuse glue joint bits with finger joint bits. Glue joint bits are for side grain cutting and finger joint bits are for end grain. The glue joint bit will give you a better gluing surface without having to use biscuits or dowels. The finger joint bit, because of its tapered teeth, gives you more side grain than end grain for longer lasting end grain butt joints.



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Let's get started with the tabletop.

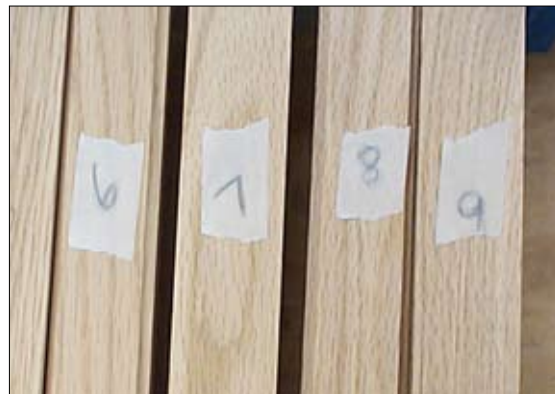
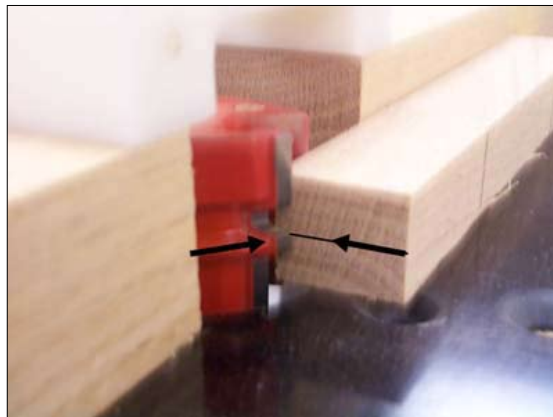
1) Rip and crosscut sixteen pieces of $\frac{3}{4}$ " thick stock to $1\frac{1}{2}$ x 34". If the stock is scrap you might want to run it through a planer first. Nine of the pieces are going to be for the top of your table. Six are for the skirt and one for the breadboard ends.

2) Chuck up a glue joint bit and set the height so that the center of the bit is set at center of your stock. Isolate the inside carbide tip flush with your router table fence.

3) Number all of your boards on the good side and set up your table for routing. A glue joint is in fact a reverse joint, so make sure that when you are routing the stock that one pass is face up and one is face down. Since the stock is very narrow, it is safer to use feather boards and push sticks to cut these pieces.

SAFETY NOTE: Make sure to unplug your router before you set up or change any bit – every time.

4) Two of the nine tabletop pieces (#1 and #9) are outside edges. These two should only receive one glue joint cut. Align your numbered parts and apply glue to the joints. Clamp the nine pieces together using reversed clamps to create equal pressure across the piece.



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When the glue is dry remove the clamps and cross-cut the ends to the final length of 33". The top will be wider than the 12" final size but this will allow you to add the breadboard ends first and then rip to width.

5) Crosscut the single 1½ x ¾" piece into two 13" lengths. These will become the ends. The purpose of the breadboard ends is to cover the multiple glue joint cuts and to finish off the end grain for a nicer look.

6) Chuck a ¼" slot cutter into your router. Isolate the bearing with the fence. Set the center of the bit to the center of your ¾" stock. Run a test with the remaining piece from the two 13" pieces. Run the piece part way into the cutter and then turn it over to see if the slot cutter fits into the groove. If it doesn't, simply adjust the height of your cutter either up or down half of the distance that you are off. Mark the good faces of your end pieces and of your tabletop. Place the pieces face down and run slots across both ends of your tabletop and grooves along the sides of the end pieces.

7) Take your ¼" spline piece and glue it into the slots that you have just cut on either end of the tabletop and end pieces. When the glue is dry, rip your stock to a final width of 12", taking some from both sides of your top equally.

8) Chuck a thumbnail bit into your router table. Set the height of the cutter to expose 1/16" of the bead profile.



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This bit has an oval style profile and will give a very nice edge to the top.

Always rout your end grains first. In this case the breadboard end grain is along the side of the board, so rout along the side first, then across one end. Finish by going back down the other side and across the last end.

Now let's add the legs.

9) If you don't own a lathe use banister spindles for the legs of this table. I picked up four 36" solid oak spindles at a local lumber store. Check your spindles when you are buying them since some are slightly longer than others. The first thing you have to do is cut the top dowel tenons off the spindles. Use a stop block to evenly cut the same amount from each spindle top. Next, cut the spindles to 29¼".

10) Round over all of the sharp edges on each spindle using a ¼" round over bit. Don't round over the tops, as you need a flush surface to attach it to your tabletop. Tables of this size are always being bumped or moved around the house – leg bottoms dragging across floors. If you round the bottom of the legs they will not tear out along the end grains as they are dragged. The easiest way to do this is to slide your fence back slightly. This will leave a larger opening in front of the bearing. Stand your leg upright and round over the bottoms. This will allow you to get the corners inside of the fence, which allows you to roll the bearing around it for a smoother finish.



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Now let's dress the legs with a skirt.

11) Chuck up the glue joint bit again and rout only one edge of all six remaining skirt pieces. Glue and clamp these pieces together; forming three pieces, each $2^{13}/16$ " wide. These will be your skirt pieces. Crosscut your two side skirts to a final length of $30^{1}/2$ ". Next, crosscut the last piece into two $6^{1}/2$ " pieces.

12) Pick a top and face for these pieces and mark them. On the backs cut a $1/4$ " groove $3/8$ " in from the top of each skirt piece. This will become the groove for the brackets to hold the top on with. On the front bottom of each piece, run a $1/4$ " round over for a decorative touch.

13) Drill and recess pocket holes on the end of each skirt piece. On a table this size, corner brackets are not required for strength.

14) Next, let's make your table mount brackets. These brackets allow your tabletop to expand and contract with the humidity. Take the scrap $1^{1}/2$ " stock that you have left, chuck a $3/8$ " rabbeting bit on your table and set the height to $3/16$ " for your first cut. Actually, $3/8$ " is a lot of wood to remove in one pass, so two passes of $3/16$ " will get you there with less chance of tear out. Lower your cutter down to $1/8$ " above the table. Flip your board over and rout the opposite side. This creates the tenon for your tabletop bracket. Drill and countersink five holes centered in your brackets, 2 " apart. Crosscut these pieces into $1^{1}/2$ " blocks.



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15) Sand all of your parts to before assembly. Progress from course sandpaper through to finer grits for a perfect finish.

It's time to assemble.

16) Centre the table legs to the skirt stock with the round over on the outside and the groove on the inside and screw them into place. Next, lay the tabletop on a protective mat or blanket to keep the top from being damaged. Set the legs and skirt on the top. Centre the base to the top measuring 1" in from all corners. To save yourself some time rip and crosscut four 1" x 4" spacer blocks, and clamp them on opposing corners of the tabletop. This will keep you spaced out evenly in each corner. Clamp down the base to the top and insert five tabletop brackets. One bracket for either end, one for one side and two for the other side. Do not glue the top to the base as it will not allow the top to float freely.

17) Apply a finish to your table that is suitable to your surroundings and enjoy the new home for your keys.

Bill of Materials

Part:	T	W	L	Material	Qty
A) Table Top	3/4"	12"	36"	Oak	1
B) Breadboard Ends	3/4"	1 1/2"	12"	Oak	2
C) Skirt Ends	3/4"	3"	6 1/2"	Oak	2
D) Skirt Sides	3/4"	3"	30 1/2"	Oak	2
E) Legs	1 3/4"	1 3/4"	29 1/4"	Oak	4
F) Table Top Fasteners	3/4"	1 1/2"	1 1/2"	Oak	5
G) Spline	1/4"	3/4"	12"	Oak	2

*Finished Size

