Stacked Featherboard Jig

Items Needed:

MLCS Featherboard Kit (item #9478) 2 pcs.
MLCS 12 piece Miter T-Track Accessory Kit (item #9870)
3/8” diameter Forstner Bit (item #9203)
1/2” diameter Forstner Bit (item #9205)
3/8” diameter Straight Bit (item #5472/7772)
Wooden Base (9-1/4” x 10” x 3/4” thick)
Wooden Spacer Block Blank (1-1/2” x 6-5/8” x 3/4” thick)
Hex Bolt 1/4” x 20 tpi x 3-1/2” (Supplied with MLCS Jig Kit)
1/4” Drill Bit

Getting Started:

Cut the 3/4” thick wooden base to the finished dimension of 9-1/4” wide and 10” long. If you do not have wide enough stock, glue up the necessary stock to make the base to the necessary width.

The slots for mounting the base to the table need to be made. Mark hole locations that are 1-1/4” on center from the edge of the wooden base, at 1-3/4” from the miter slot end of the base and at 3-1/2” from the featherboard end of the base. These hole locations will establish the start and stopping points of the table mounting slots. Using the 3/8” Forstner bit, drill through holes at all four of these locations (see Figure A).
To complete the slots, use the 3/8” straight bit and a router table / fence. Set the fence so that the 3/8” straight bit will fit through the hole that has been predrilled. Mark the location of the bit on your router table fence. We have chosen to set the router table fence faces to show the position of the bit (see Figure B). This will help you set the starting and stopping locations of the mounting hole slots, since the cut will be made in incremental depths to achieve the full through cut. Set the bit height to cut 1/4” above the table surface. Turn the router on and carefully lower the wooden base over the spinning router bit. After the bit has started to make the cut and the wood is flat on the router table, carefully slide the wood back and forth until the bit reaches the starting and stopping holes. Reset the bit height to 1/2” and repeat the cutting steps until the cut is made through the stock (see Figure B).

To make the shallow rabbet stop for the featherboards, set the bit height to 1/4” and set the router table fence so that the bit will cut a 3/8” wide pass along the edge of the wooden base. Make the cut along the full width of the end of the base. Move the fence back another 3/8” and continue to make these passes until you have cut back a 1/4” deep rabbet that extends 1-1/2” from the end of the wooden base. This rabbet can also be made using a tablesaw. The purpose of this rabbet is create a seat and stop for the featherboards (see Figure C).
Two new holes need to be drilled through each featherboard for the mounting bolts to pass through. The holes are made in the locations shown in the image below. Stack the featherboards on top of each other when drilling these holes to make sure they are aligned in each featherboard (see Figure D).

After drilling the holes in the featherboards, a countersunk hole also needs to be made through the base for the mounting bolts. To properly position these holes, place one featherboard so that it is centered on the width of the base and the back of the featherboard is positioned against the rabbet on the base (see Figure E). Mark the hole location and use a small 1/8” diameter bit to make a small through hole in the center of the hole locations. Using the pilot hole as a guide, flip the base over and with the 1/2” forstner bit, drill a 1/4” deep countersink allowing the spur point on the forstner bit to follow the pilot hole for proper centering. Switch back to the 1/4” drill bit and enlarge the through bolt hole to 1/4” (see Figure F).
Take the spacer block blank and using the featherboard, mark two mounting hole locations along the 3/4” thickness. Stand the block on the 3/4” edge and drill two 1/4” diameter holes through the block at these locations (see Figure G).

After the holes have been drilled, use a tablesaw or bandsaw to cut the spacer block blank into three pieces (3/4”, 1/4” & 1/4”). These spacer blocks will be inserted between and above the two featherboards to allow you to adjust the height of the top featherboard when working with varying length router bits.

Insert the 1/4” hex bolts through the bottom of the jig, place one featherboard over the bolts then use a combination of spacer blocks and the second featherboard over the bolts and finally secure with the 1/4” female locking knobs (see Figures H & I).
To attach the featherboard to the miter slot, use the miter t-track accessory kit to slide into the miter slot. Position the slots in the base over the bolts protruding from the miter t-track accessory kit and position the featherboard base where needed to achieve the correct pressure needed for your routing application (see Figure J).