You Will Need the Following Items:
1/8” Point Cutting Round Over Bit (#6431)
1/4” Straight Cutting Bit (#5470, #5468, or #7770)
1/2” Straight Cutting Bit (#5474, #5477, #7774, #7777, or #7775)
Router Table
Ruler

From a piece of scrap wood, make a set up block to set the fence for all of the cuts necessary to make the beads. Lay out the first line 1/4” from the end of the set up board. This end will be the edge that the tongue will cut from. Make a second line 1/4” from the first line. Measure 1-1/4” and draw a line at this point. Make your fourth line a 1/4” from this line. Again, measure 1-1/4” and make a final line at this point. This is the edge that the groove will be milled into. This also gives you the final width of the panel.

Rip all of your boards to their final width (3-1/4”). You may find it to be easier to make your panels out of longer stock and cut into final length after all routing has been done. This is recommended when your panels aren’t very long.

Set up your Router with the Point Cutting Round Over bit and adjust your bit to a height of no more than 1/8”.

Using the set up block made in step (1), set your Router Table Fence so that the bit is centered on the first line. Rout all of your boards at this fence location. When you have finished all of your boards, reposition the fence so that the bit is centered over the next line. Again rout all of your boards at this location. Repeat until you have routed at all of the lines from the set up block. Finally, adjust your fence so that the bit is centered over the edge of the board.
It is now time to create the groove. Set up your Router with the 1/4” Straight bit and adjust the bit height to 1/4”(*). Set the Router Table Fence so that the bit is centered on the edge of the board. The board will be routed vertically against the Router Table Fence and you will be routing the edge of the board that has one half of the radius routed on it. *(You can rout the groove in one pass if you are using softwood, but two passes are recommended for hardwoods.)*

Next it is time to make the 1/4” tongue. Set up your Router by switching to the 1/2” Straight bit. Set one of the boards that has the groove in it on the Router Table surface and adjust bit height to the of the groove. Set the fence so that 1/4” of the Straight bit is exposed from the fence. Keeping the boards oriented the same way as you had the board for the set up (either beads up or beads down), rout all the boards creating one side of the tongue. Repeat set up to adjust for the other side of the tongue and rout one board to complete the tongue. Check the tongue for fit. It should be snug but not overly tight. Adjust bit height to fine tune fit, then rout all remaining boards to complete your beaded panels.

If you made your panels long, cut them to final length and install them in your project.