

# ShopBot®

We make  
the tools  
for making the  
future.

**Project:** Piece by Piece Basket

**Overview:** This basket is built using 123 identical pieces, plus one base piece. It is built in layers that cascade down to a single piece. This basket makes a great decorative piece in any home or office.

**Materials:** For this example Baltic birch plywood is used; however, an alternating pattern of light wood and dark wood make this basket very attractive.

**Minimum Cutting Area:** 24" x 48"

**Bit Size:** 1/4"

**Finishing:** It is best to finish this project with a spray on polyurethane after the project has been assembled



*\*\*Always read the entire project details before starting to cut the file yourself\*\**

*\*\*Account for the thickness of the physical material on hand and the material thickness in the file\*\**

*\*\*This file is zeroed to the tables surface, Zero your bit to the tables surface\*\**



Depending on the machine you are cutting this file with, you will need to account for a hold down method. If using screws, simply reference the area where the cutting does not take place and add screws for hold down.



Once the file is complete, flip the work piece over and cut the tabs with a utility knife. If you try to push them out by hand it could lead to tearing out on the wood and take away from the projects appearance.



After all the pieces are removed touch the ends up to remove any tab remnants. This can be done by hand or a power sander of your choice.



It is very important at this step to find four pieces to make up the handle of the basket. Make sure all the ends are cleaned up and at a 45 degree cut.



Make a jig to hold the four pieces together until the glue can set. If you do not have access to a nail gun, simply screw the jig together. Let this sit for at least an hour before moving on to further gluing.



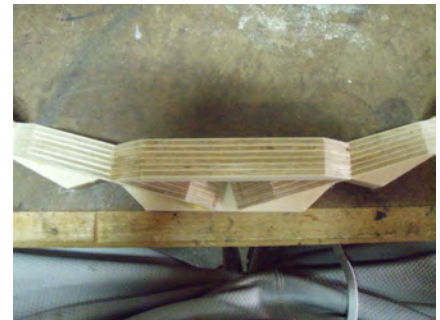
It is a good time while the handle is gluing up to go through your pieces and hand sand all the sharp edges and corners. This will allow someone from getting slivers while handling the basket.



Lay out the handle with an additional nine pieces as shown above. This will become the center ring of the basket. At this point the basket should measure 19.25" tall and approximately 18.25 at its widest point. Then simply fill in the parts by eye to make the shape.



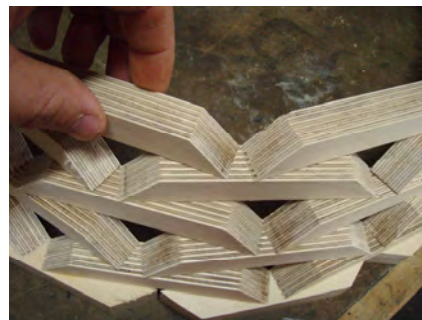
Now rotate the parts 90degrees and start making rows by staggering each row. As shown above, one can see how the row being started is placed half way across the previous row.



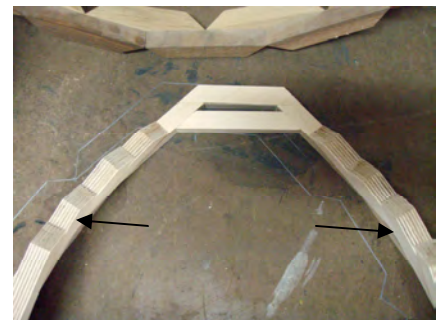
Every other row will have a piece centered on the bottom. It is important to keep layout uniform and consistent.



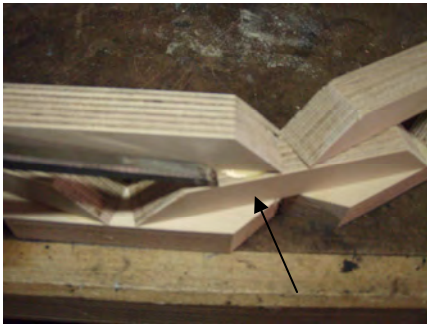
Not much glue is needed in between each piece. Two drips will be sufficient, when the whole basket is glued up it works like a net and holds itself together.



After dropping a piece into position it is a good idea to hold it there for a few seconds or simply put a little pressure on the top side of it.



Keep an eye on the left to right spacing of each layer. Each new row will be shorter than the previous so keep an eye on the left to right balance.



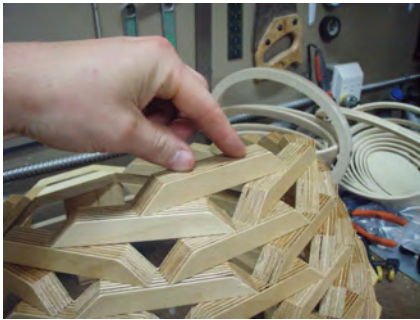
It is very easy to put extra glue onto a joint. Wait until the glue has set after an hour or so, then bring in a sharp chisel and scrape the glue from this joint. Doing this when the glue is wet tends to move the parts around.



Keep building the layers up, each layer will be one piece short of the previous layer. Take your time, keep everything lined up, complete this side of the basket and let it sit overnight.



To be able to build the other half of the basket on a flat surface, cut a scrap piece of wood that can go underneath the handle. Now you have created a flat surface and start building this side like the first one.



Once the last piece is installed you have successfully put 123 pieces together with no more than dabs of glue. Let this half of the basket sit overnight before continuing on.



Find the center of the base and the center piece of the basket. Layout for two screws to be drilled in for extra support. Glue and screw the base onto the basket.



Scrap any glue off that might have squeezed out from the joints. Also bring back a piece of hand sandpaper and knock down any sharp corners that might still exist.

Cutting the basket out of one piece of wood makes a really nice basket. Try cutting it out of two different species and alternating the colors, it really makes the basket pop. A can of spray polyurethane works the best for finishing this project, follow the manufactures instructions and put several coats of a gloss finish on to make this basket complete!!



Piece by Piece Basket PartWorks  
 Piece by Piece Basket Toolpath