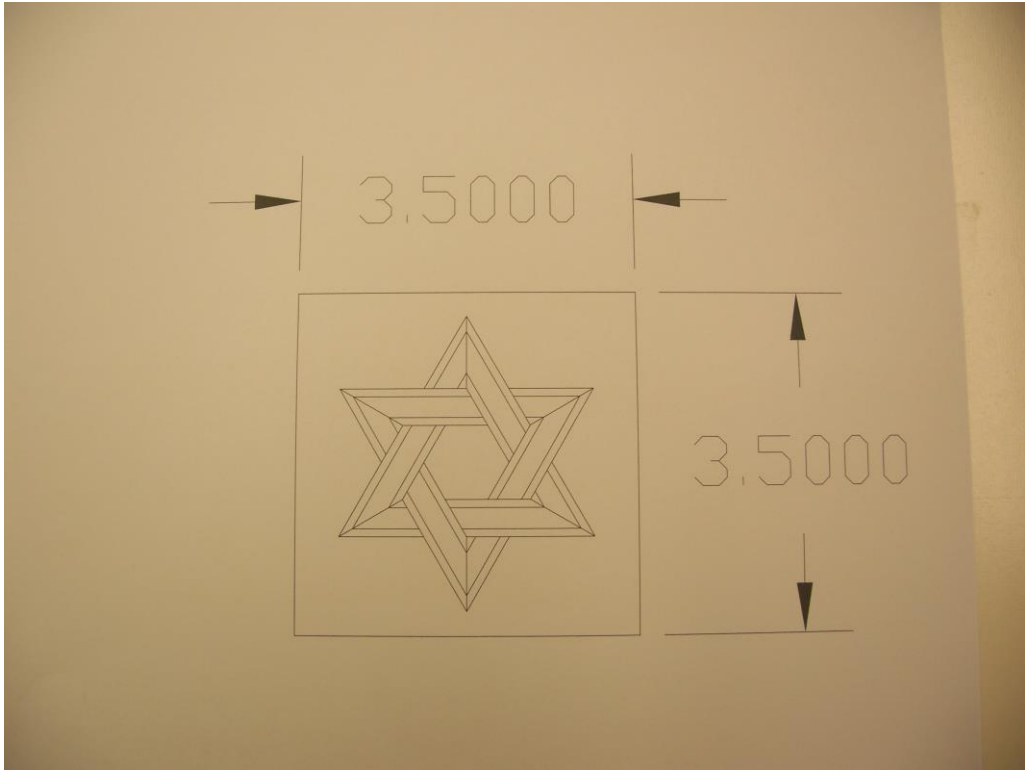


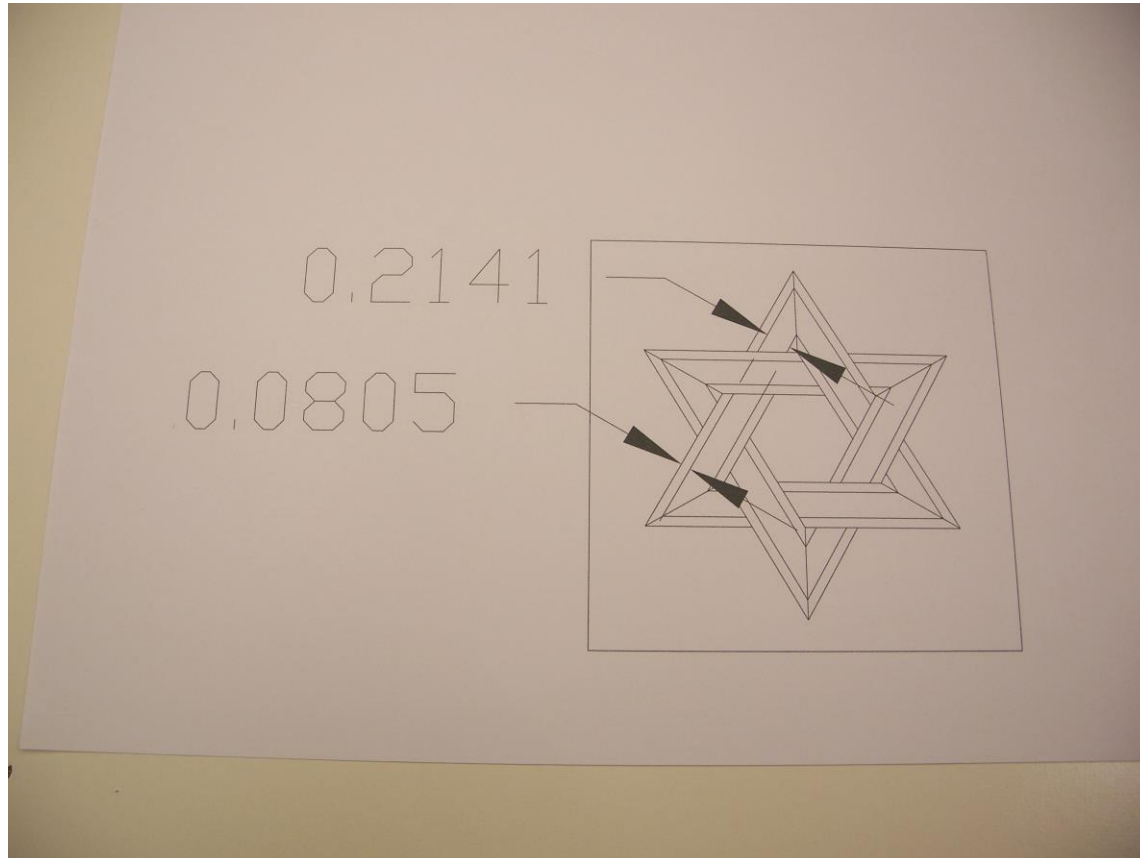
SIX POINTED STAR



**Using the design below
I created detail drawings using Auto Cad.**



The photo indicates the dimensions of the strips of hard maple and sapele to be glued up. I cut these strips on the table saw and then sand to final dimensions using a drum sander before gluing up.

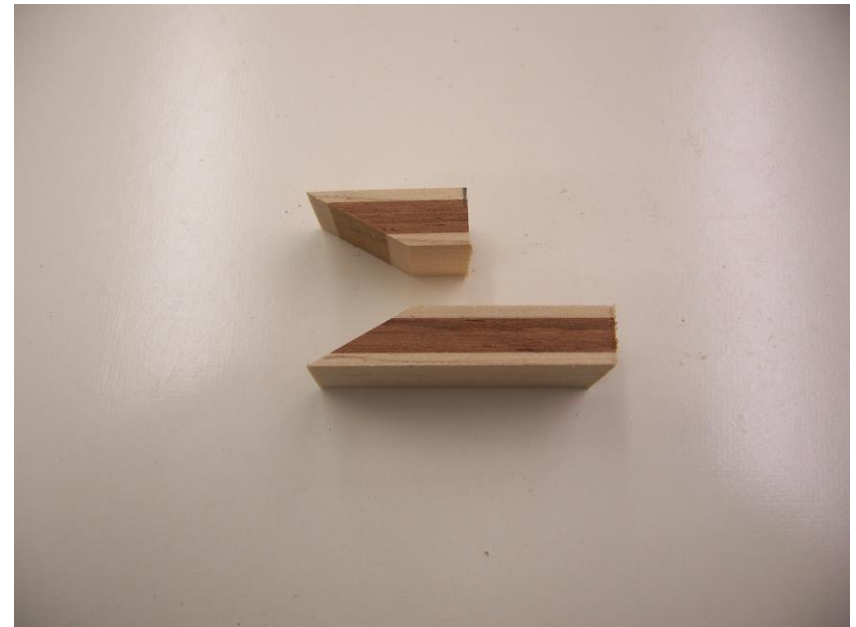


The ten completed star units require six, 30" strips.
Allowing for cutting over size, each "L" as I call it
requires about 3" of the strip.



Using a sanding jig with 30 deg and 60 deg fences, sand each end of all six strips at 30 deg. Note: All angles of the star unit are either 30 deg or 60 deg.

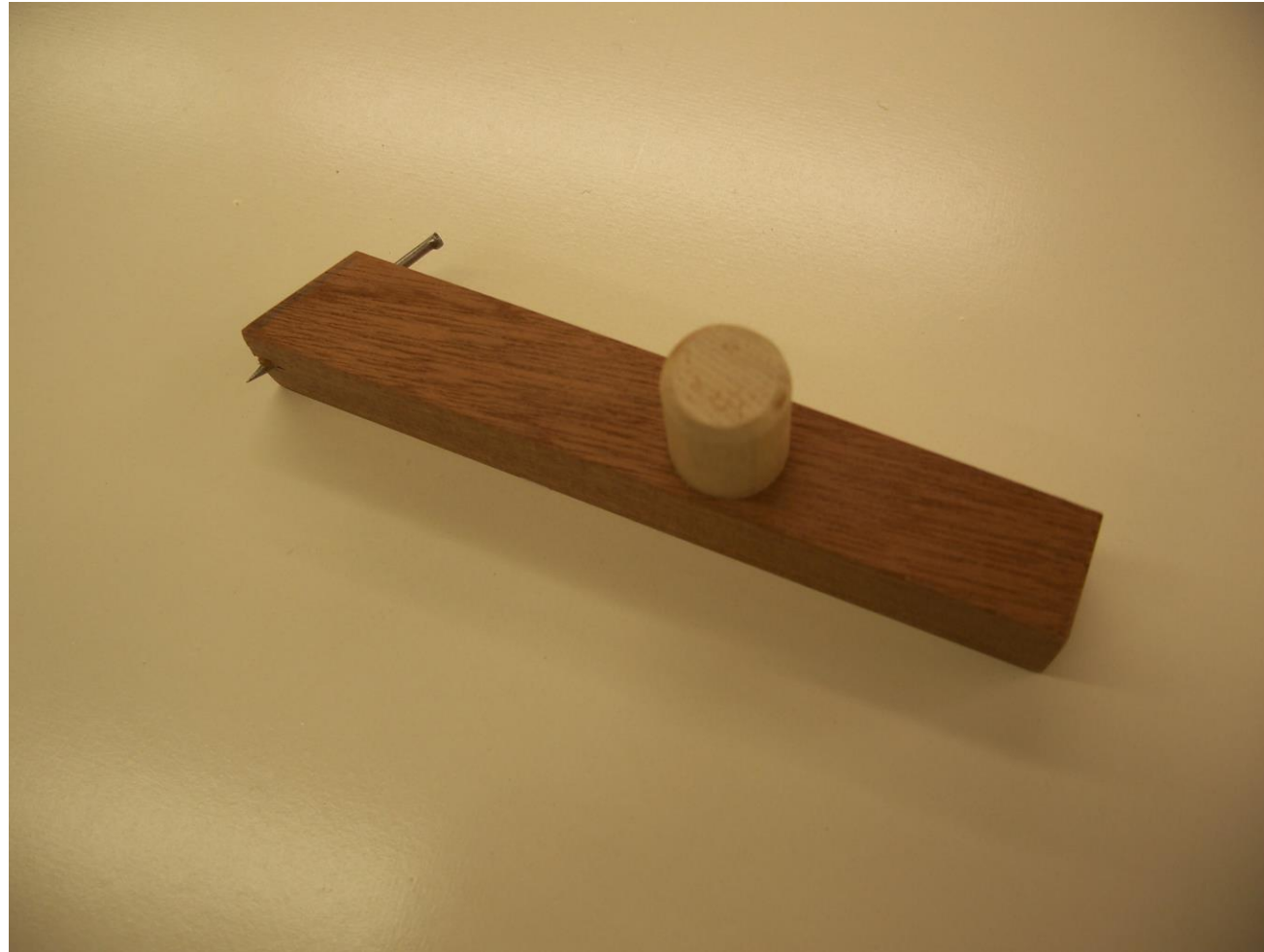
Cut 1" and 1 7/8" long pieces. (I use a band saw) Repeat until you have sixty (or more) pieces of each.



Using the 60 deg fence and a holding tool, sand each 1" piece until the 30 deg face matches the 30 deg face on a 1 7/8" piece.



Close up of the holding tool.



Using the rub joint process glue up at least sixty units as above.

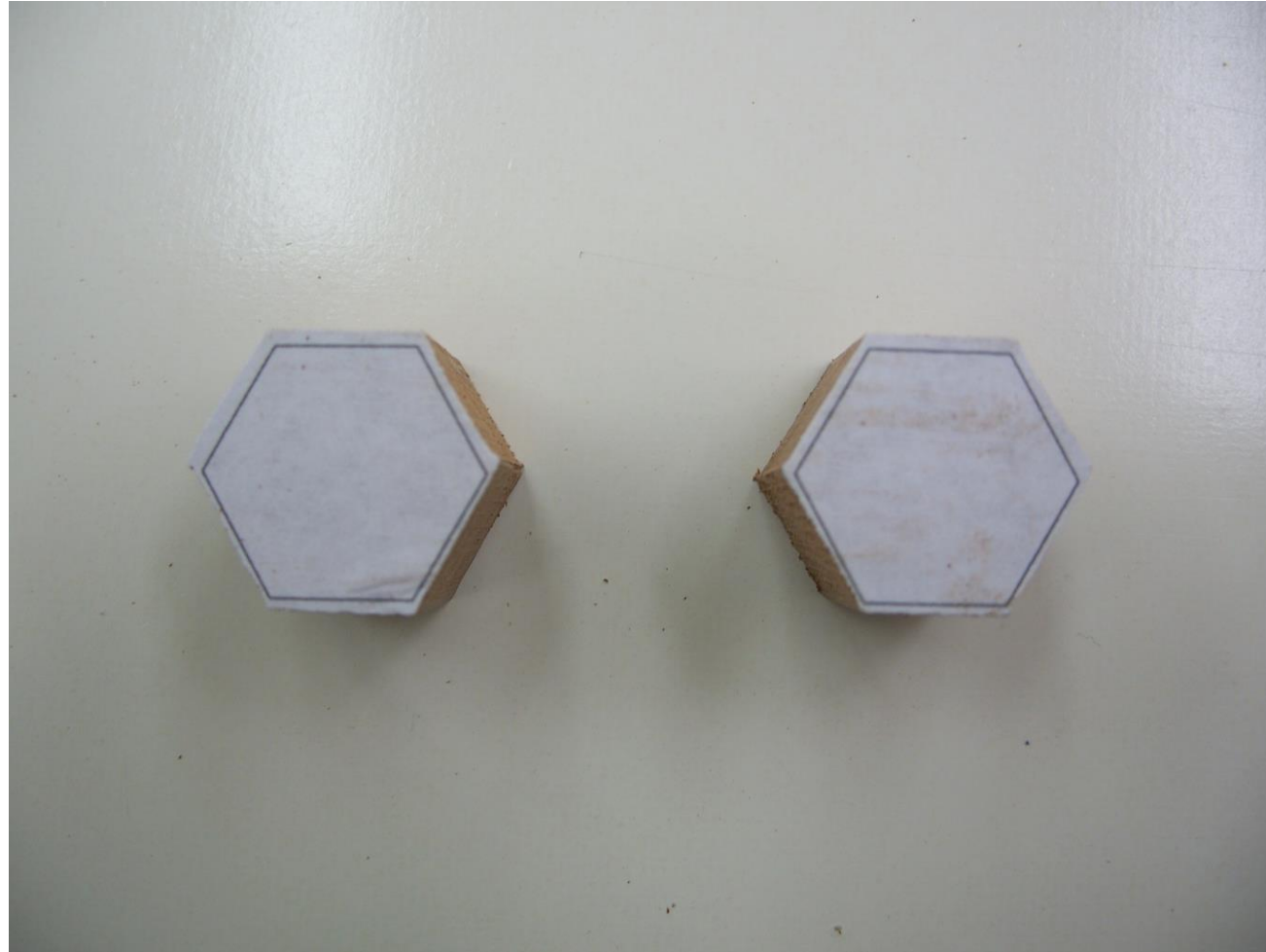
Be certain to remove any excess glue during assembly



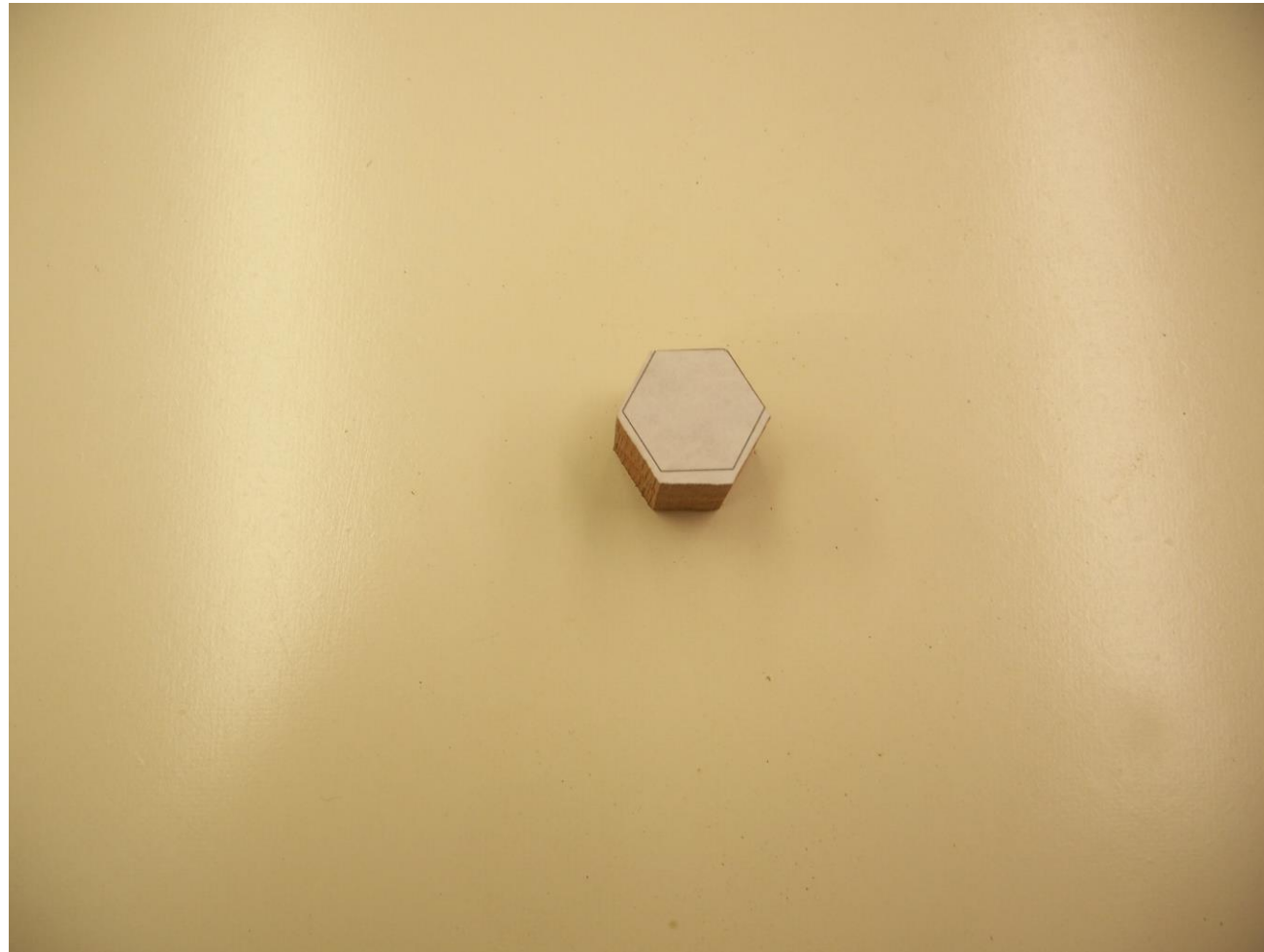
Below is a template for some of the star centers
glued to sapele.



Using a band saw cut the centers slightly oversize. This allows “sanding to the line” later

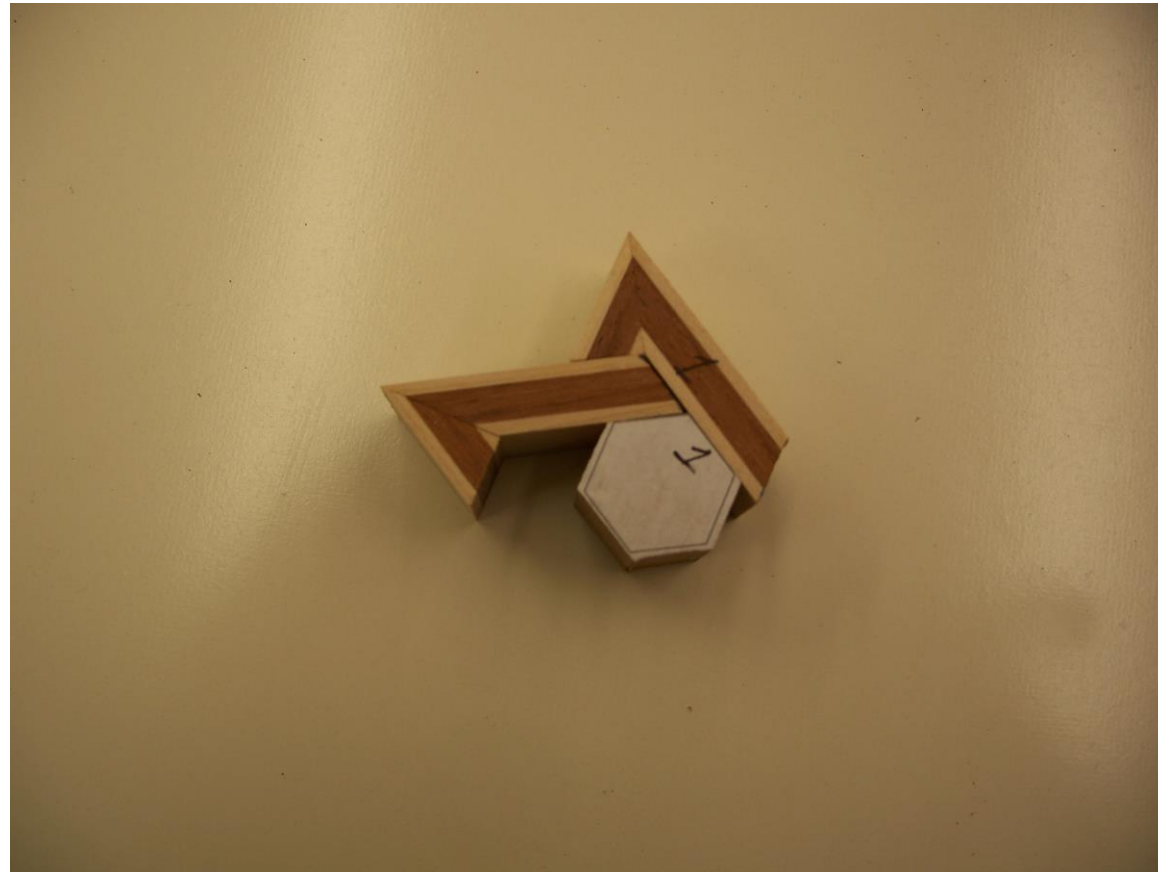


Sand to the line on two sides only. I do this sanding freehand

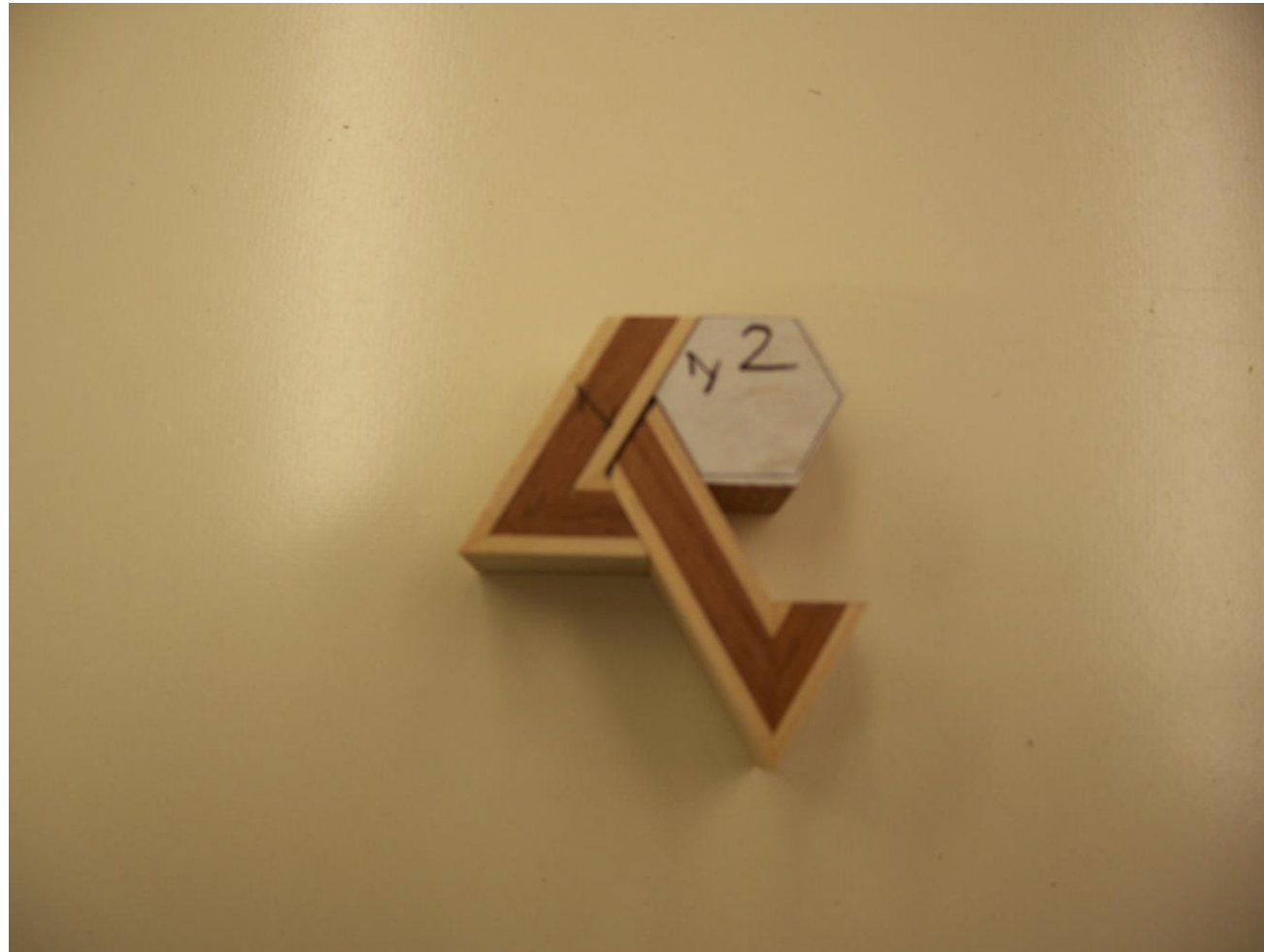


Place one L on one side that has been sanded to the line as a “filler”.

Place another L on the other sanded side and # the L and center #1.



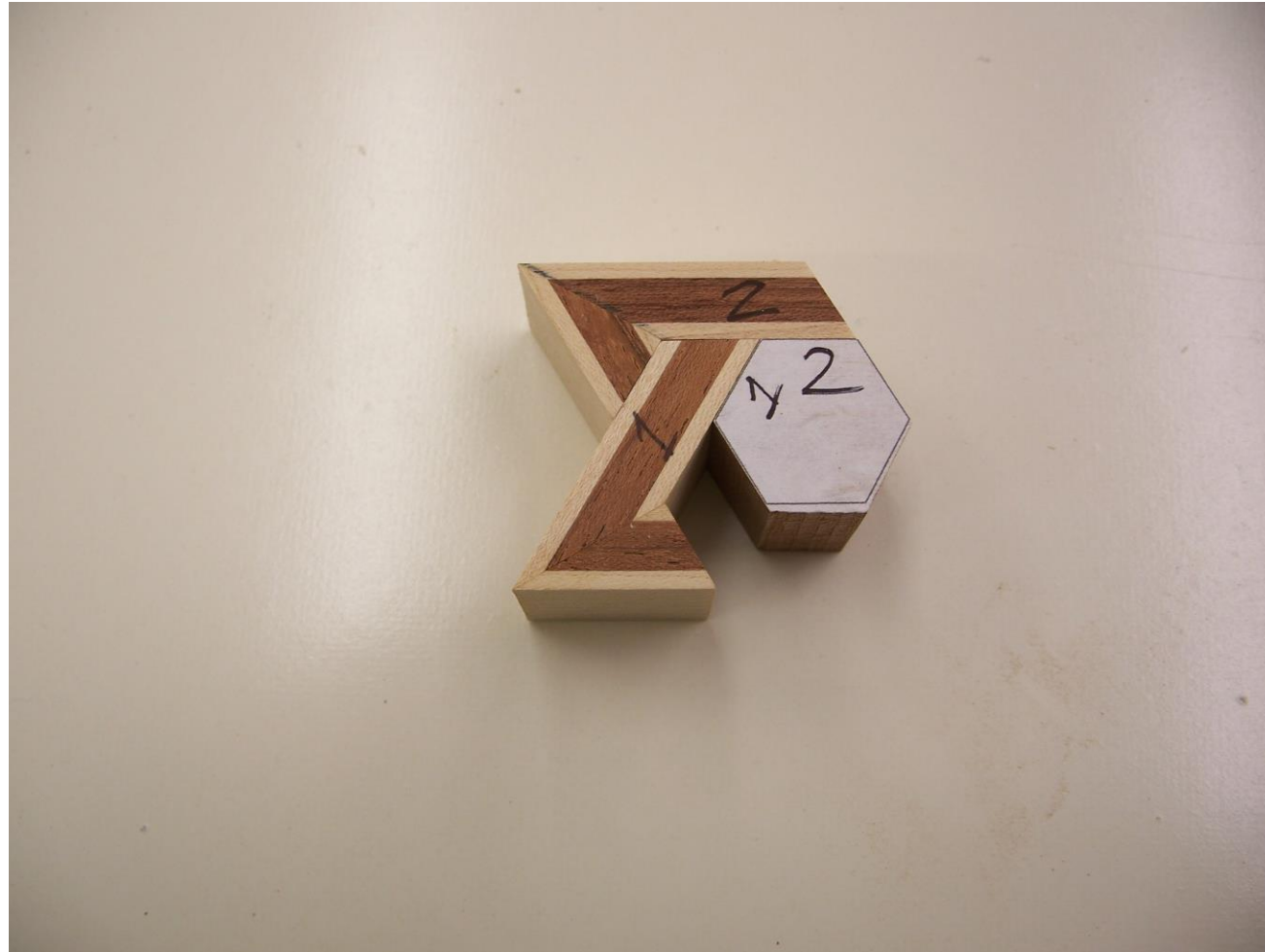
Sand both the L and center to the line @ #2. Again, I do this freehand while holding the pieces tightly together.



Place another L and mark #2.



Sand to the line and repeat until all six L's have been sanded and fitted.

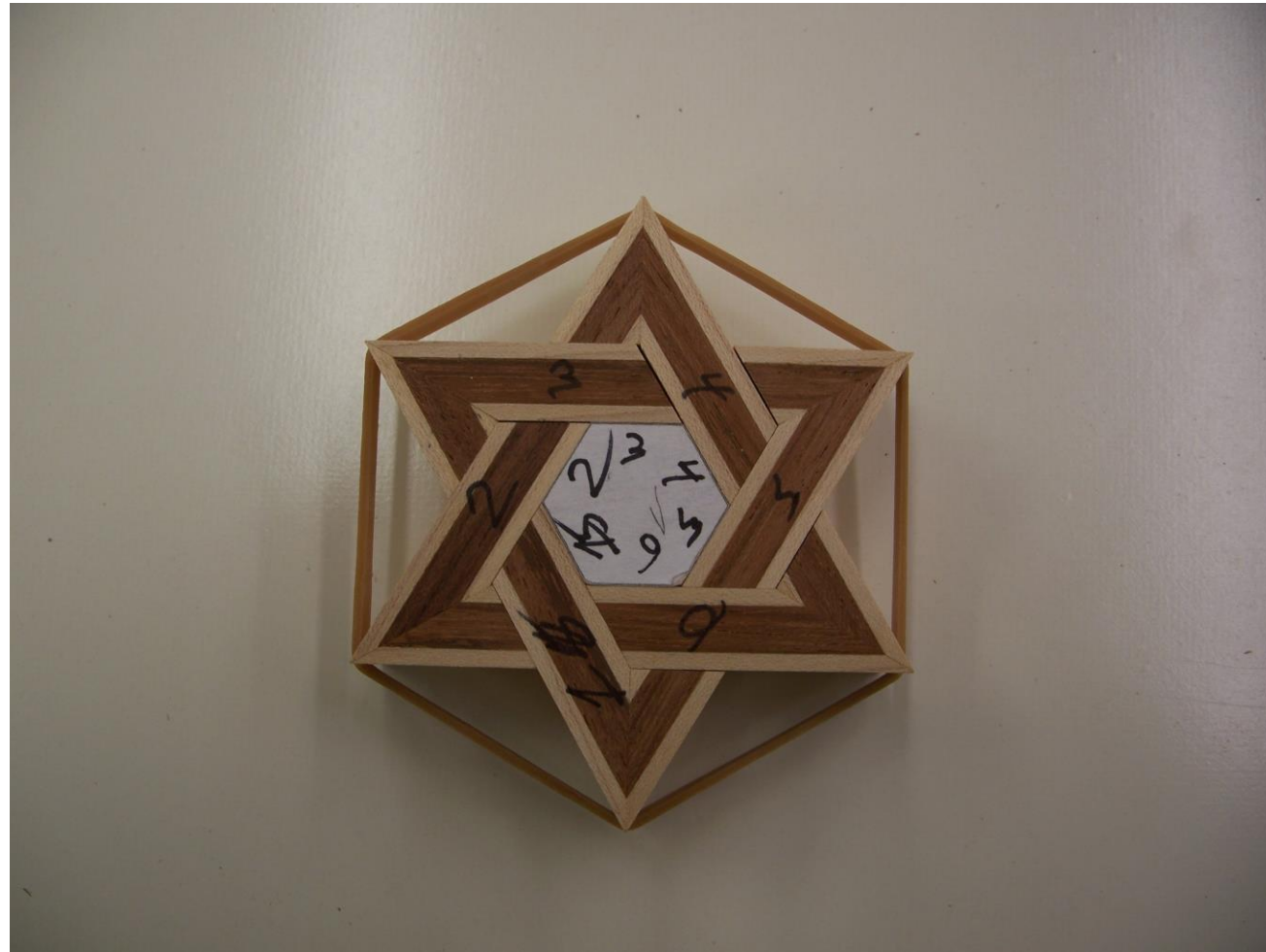


Completed unit has been sanded and fitted.

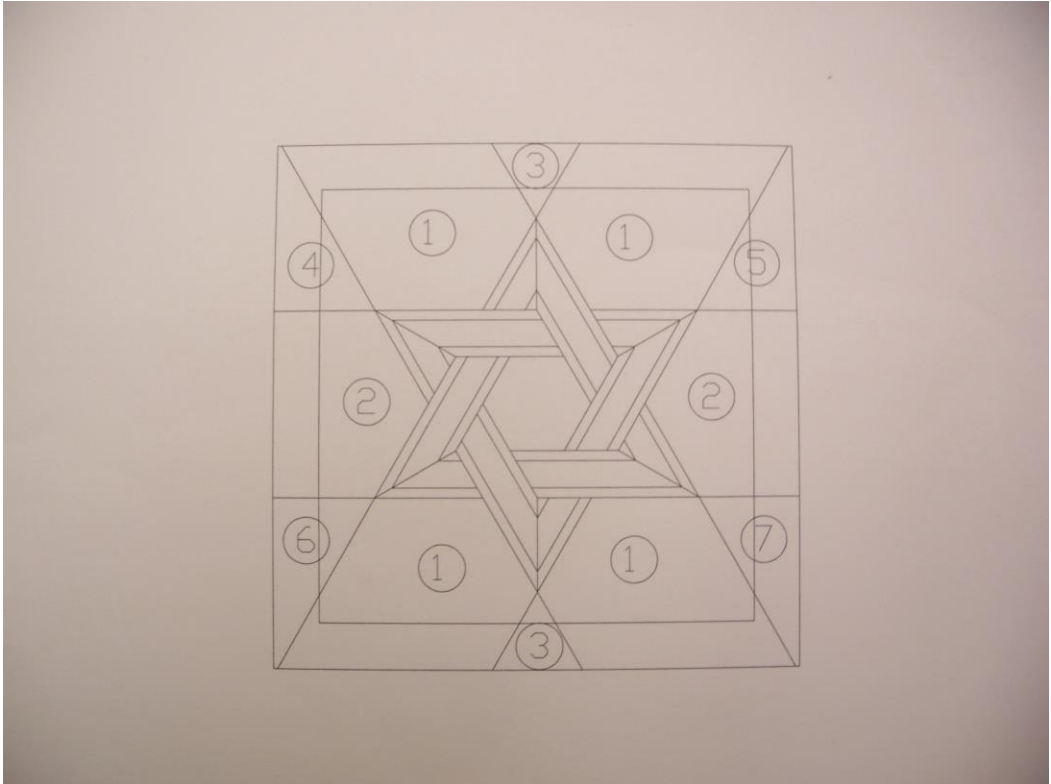
Glue up as a complete unit. Unfortunately glue up cannot be done in steps because each L is a “filler” for the next L.

Once all pieces are glued and in place, keep squeezing and working around the unit until all joints are tight. Apply a rubber band around the unit and check for any open joints. (This is why I made 10 complete units). Remove all excess glue before it cures. I remove as I go.

Completed Star



This is the layout for the star surround area.
Going away from the golden rule that all wood grain must go in the same direction, I designed this so the surround has a star burst effect.

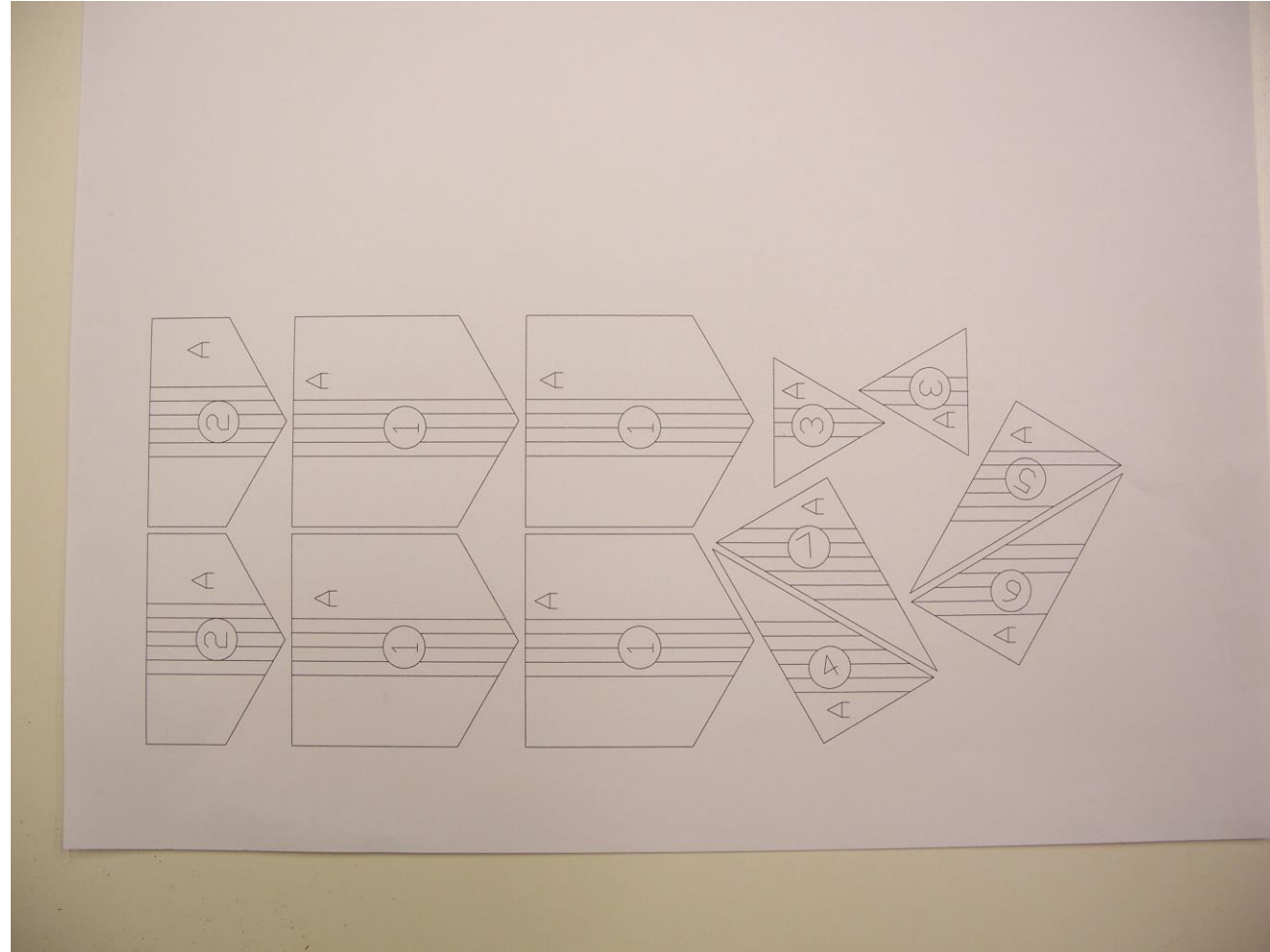


Below are the templates for the surround for one star unit. Note the letter A on each piece. The ten sets of templates will be marked A–K so all pieces of each surround from the same piece of wood can be kept organized. The numbers indicate the location of each piece in the unit. The lines on the templates indicate the wood grain direction.

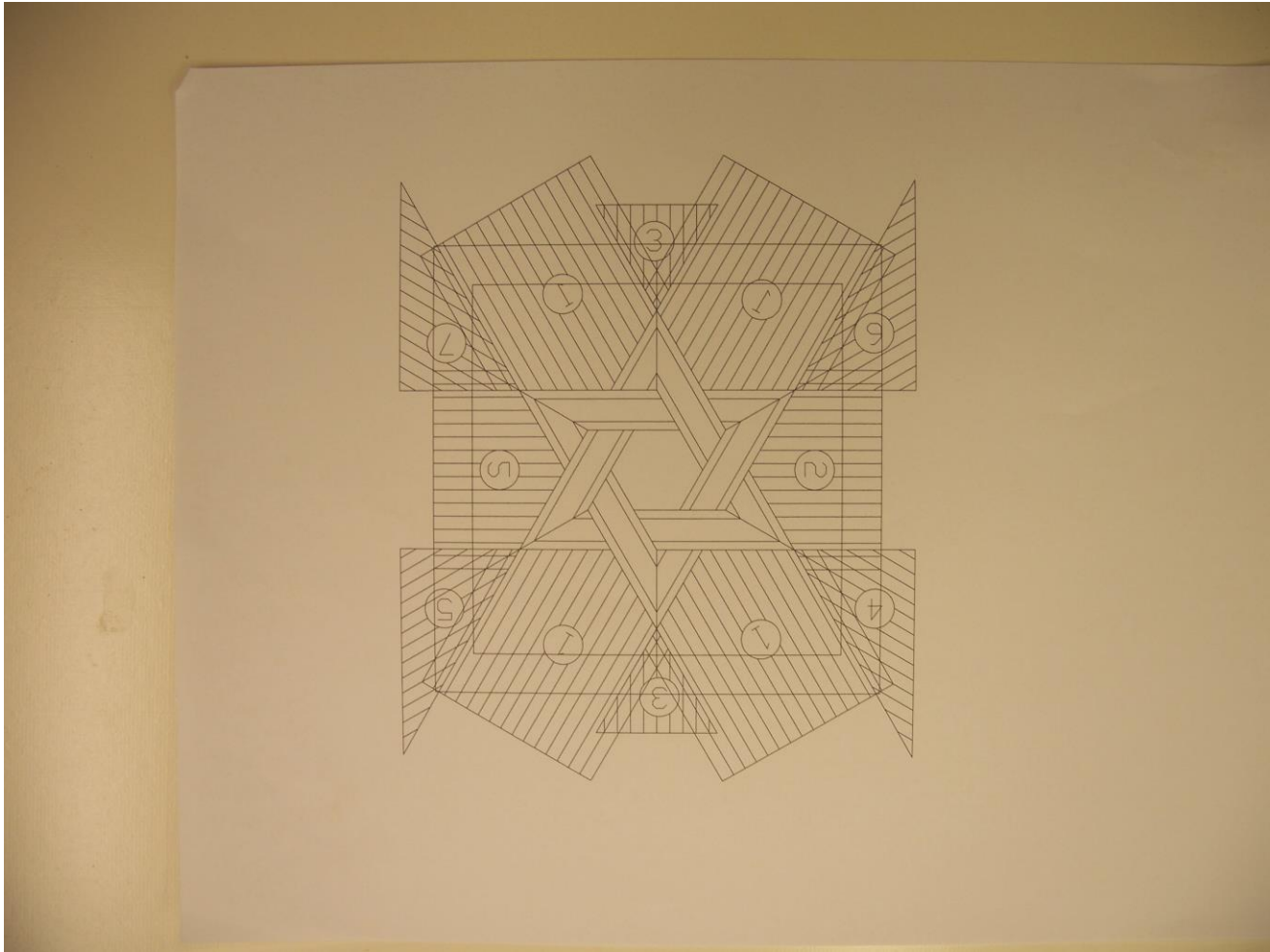
These pieces are about 1/8" over size on all sides to allow for "sanding to the line" later.

Using a band saw, cut all pieces

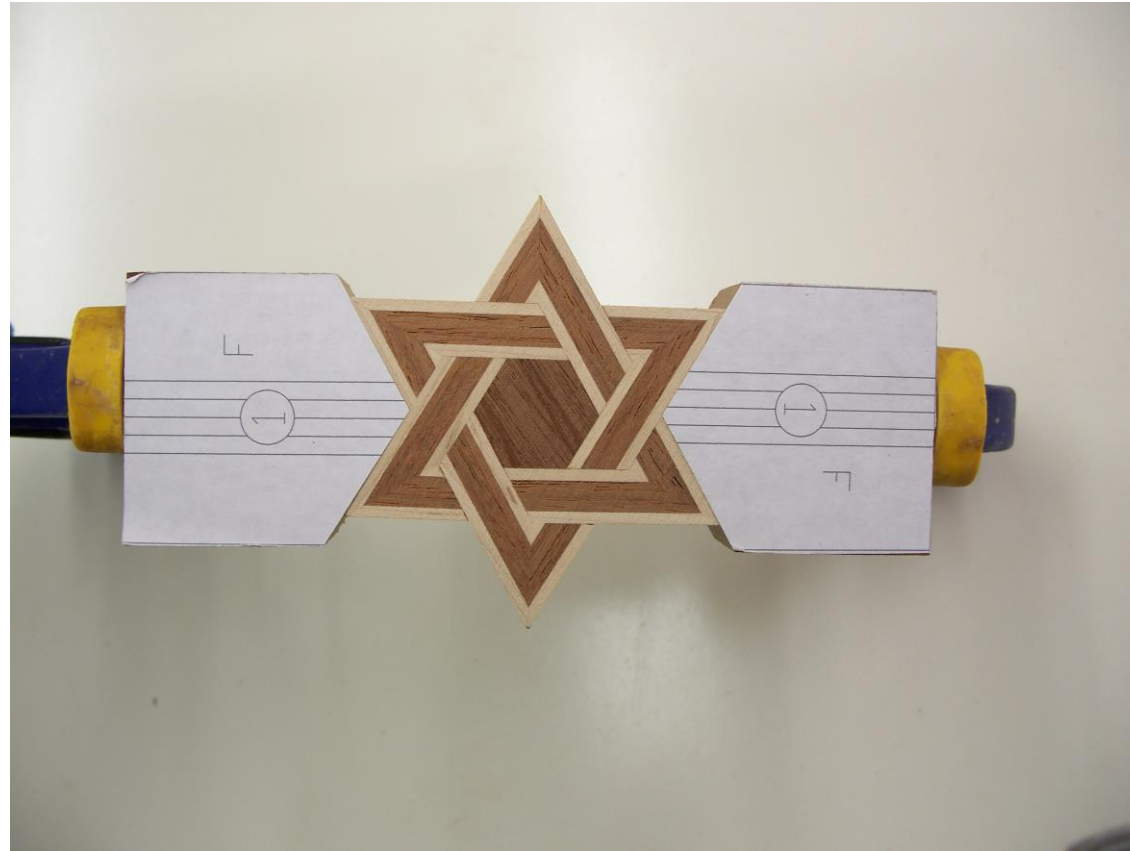
Surround Templates



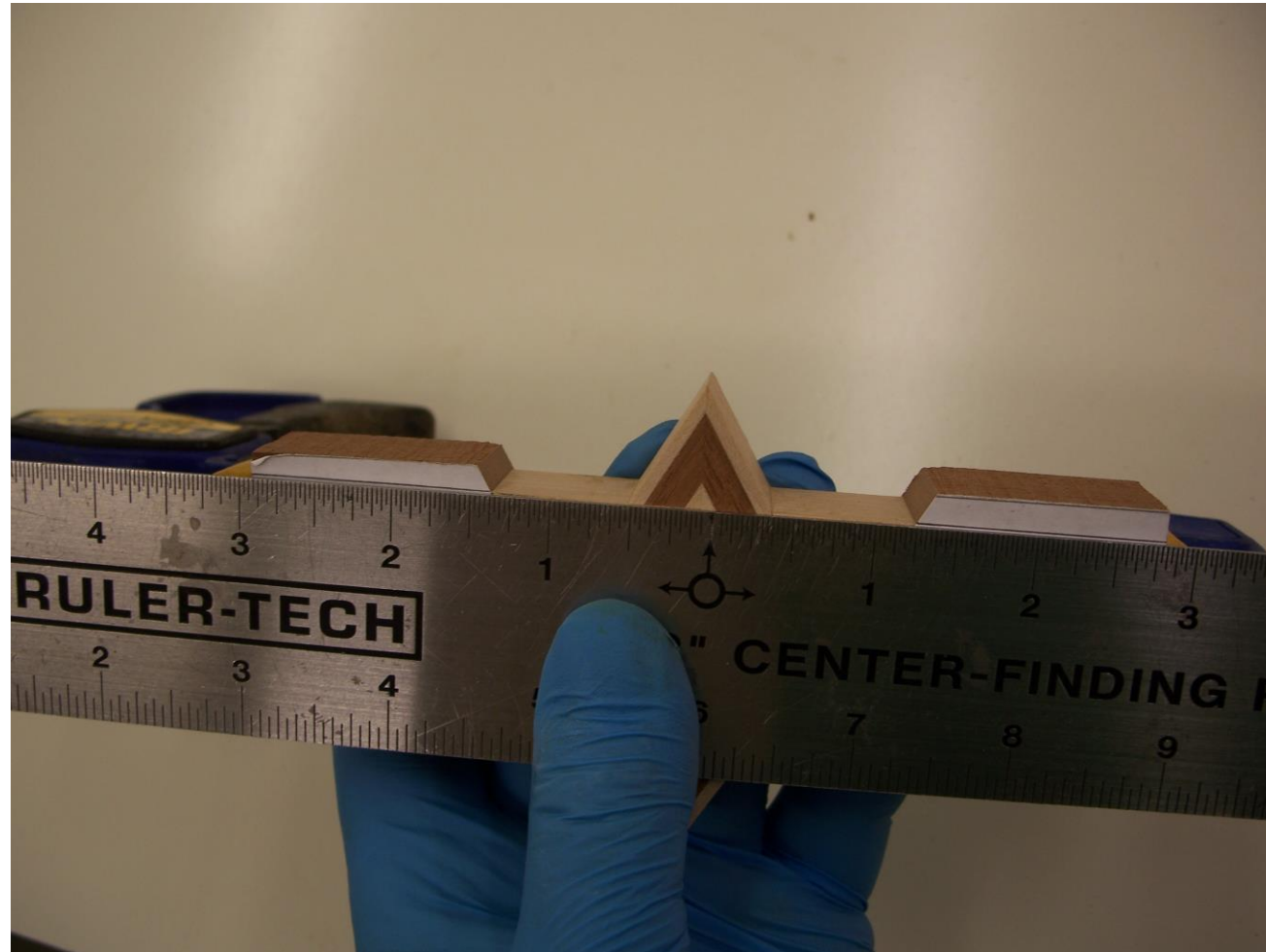
This photo shows how the individual pieces overlay each other after being cut over size



Sand two #1's to fit into opposite sides of a star assembly, leaving the sides oversize. Check for proper location so the grain in the center is properly oriented



Using a straight edge mark the two #1's where they are flush with the edges of the star. Do this on both sides



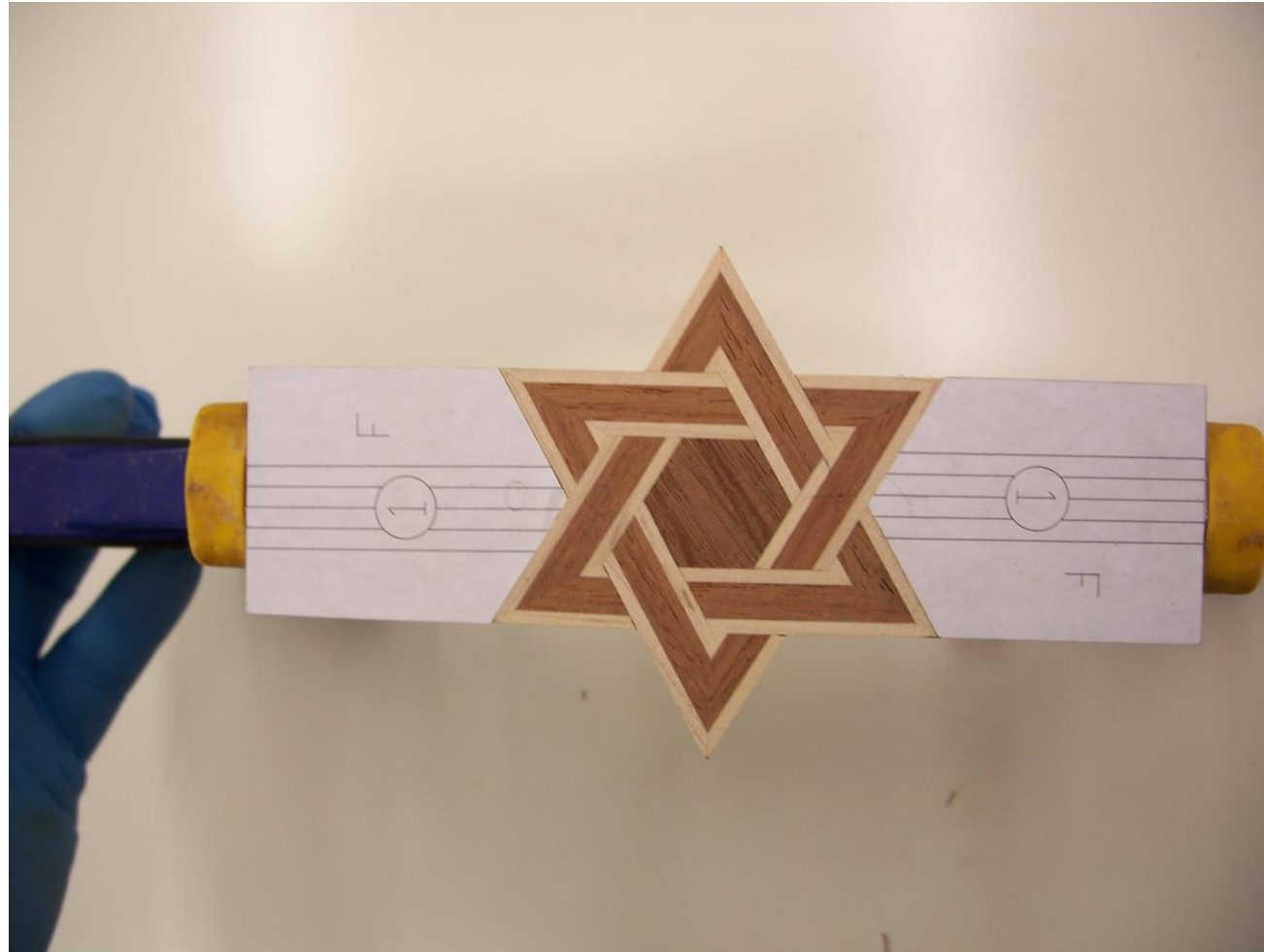
Sand each piece to the lines and check for proper fit.

Once fitting is complete, glue the two #1"s to the star unit.

Repeat the above process with all remaining surround pieces.

Again, be certain to remove all excess glue as you go.

Sanded fit and glued



A completed segment unit will look like this.



Cut the completed segment to final size, in this case $3 \frac{1}{2}'' \times 3 \frac{1}{2}''$.

Note: The edges of the units are cut at 90 deg. The “fillers” between the segments in the feature ring are cut at 22.5 deg to make the eight segment feature ring.

I hope this tutorial is helpful.

As a side note, it took me about 30-35 hours for the above process and to complete the assembly of the feature ring.

Finished Segment



Completed Project

