

Laser Cutter – Veneer Marquetry

Step 1: Find or create a vector file

- Use the Technique Tutorial “Searching for Vector Files” to find an SVG file, and then open it in Inkscape.
- Or, use the Technique Tutorial “Inkscape – Image Trace” to turn other types of image file into an SVG file in Inkscape.



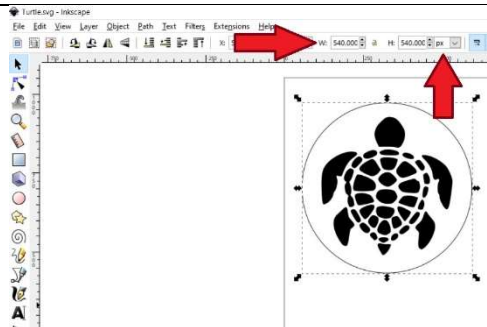
Step 2: Determine the best way to cut the pieces

- The easiest method is simply to cut the entire design in each of the pieces of veneer. This wastes a little veneer, but is by far the easiest way. This is the method demonstrated in this tutorial.
- Advanced users are welcome to explore splitting vector files into pieces and only cutting the desired pieces out of each sheet of veneer.



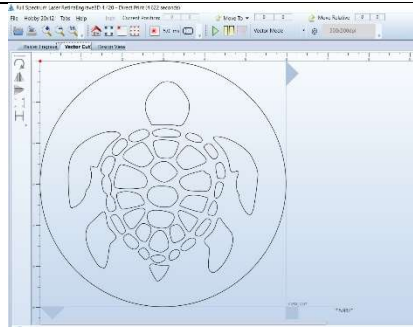
Step 3: Set the final size of the design

- Change the measurement unit to inches, mm, or cm according to preference.
- Enter the desired measurements in the “W” and “H” fields to resize the image (“W” is width, and “H” is height).



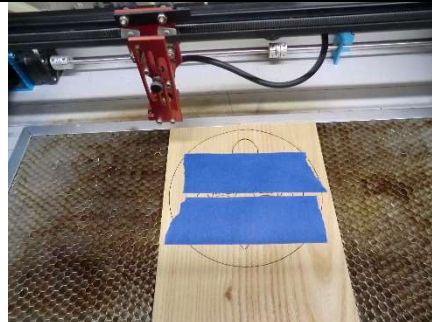
Step 4: Send the file to Retina Engrave and open the Vector Cut tab

- See the Technique Tutorial “Laser Cutter – Vector Cutting” for details.
- Do not adjust the image size in Retina Engrave
- Adjust the Vector Layers speed and power settings as needed for the material being cut



Step 5: Cut, tape, and remove the first piece of wood

- Follow the steps for turning on and preparing the laser, and cut the first piece of wood.
- Without disturbing the position of the pieces, carefully cover the cut veneer using blue painters tape to keep the pieces in their proper positions, then remove the cut veneer sheet from the laser.
- If any pieces have fallen through the hexagon tray, retrieve them and stick them in their proper places on the blue tape.



Step 6: Repeat for each piece of wood

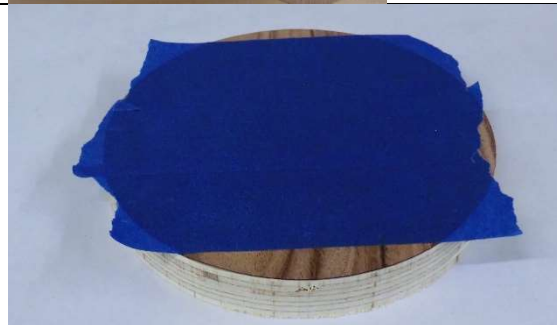
- Repeat Step 5 for each piece of wood needed for the design.

**Step 7: Assemble the final design**

- Lay out painter's tape, sticky-side up on an area large enough for the finished design.
- Gently remove pieces from the cut veneers and assemble them on the painter's tape to form the completed design.
- The design is being assembled upside down, so be sure that elements such as lettering are upside down when the design is finished.

**Step 8: Glue the design onto the desired surface**

- Following directions on the container to apply the glue, attach the veneer design tape-side-up to the desired surface.
- Once the glue is dry, remove the painter's tape.
- Note: water-based wood glues frequently cause the veneer to buckle as it dries. Better results can be obtained with various epoxies, cyanoacrylate superglues, or a contact cements.

**Step 9: If desired, sand the piece and apply any desired wood-finish**

- For best results, sand first with 120 grit sandpaper, then 220 grit.
- Use denatured alcohol on a rag to wipe all the sanding dust off the piece, then apply the desired finish according to the instructions on the container. The simplest finish to use, and one that is completely non-toxic, is mineral oil.

