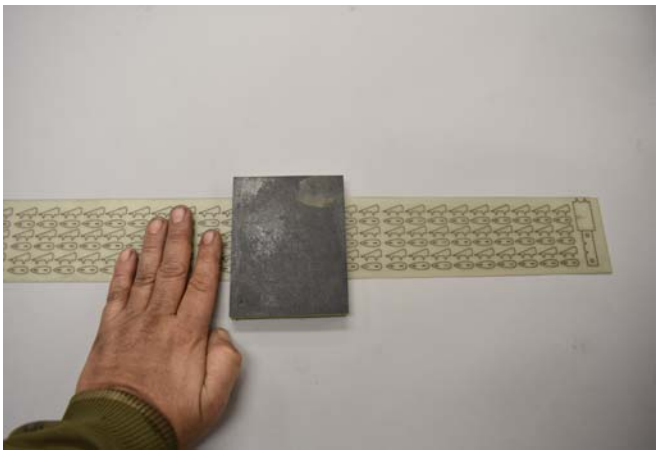
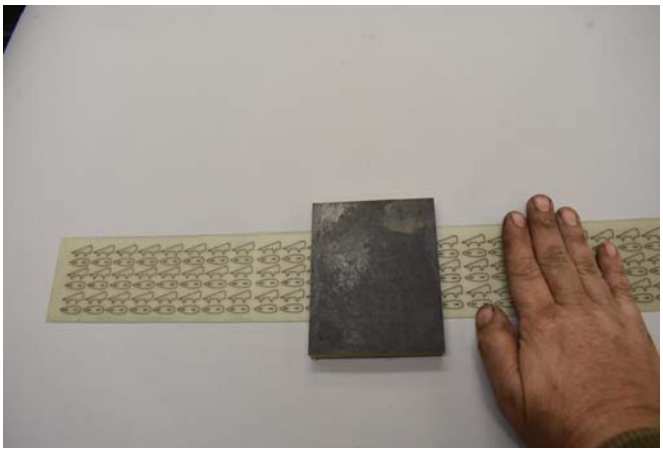
CESSNA 185 VORTEX GENERATORS:

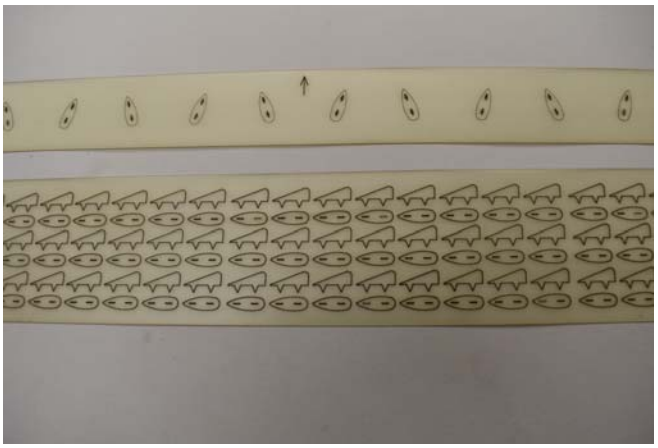
LEFT WING SHOWN

1. Hold down the center of the G-10 sheet and sand outward with a sanding sponge. Flip over and do the back side also.

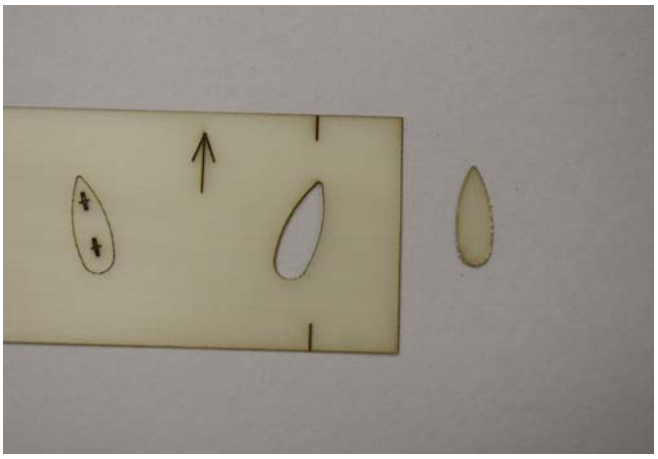




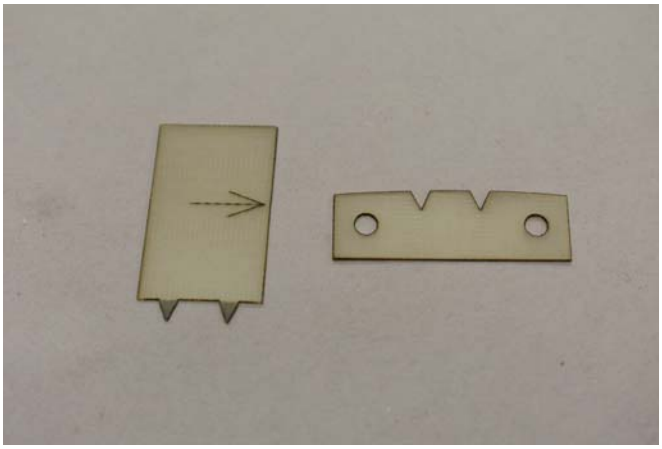
2. Wipe down with Acetone.



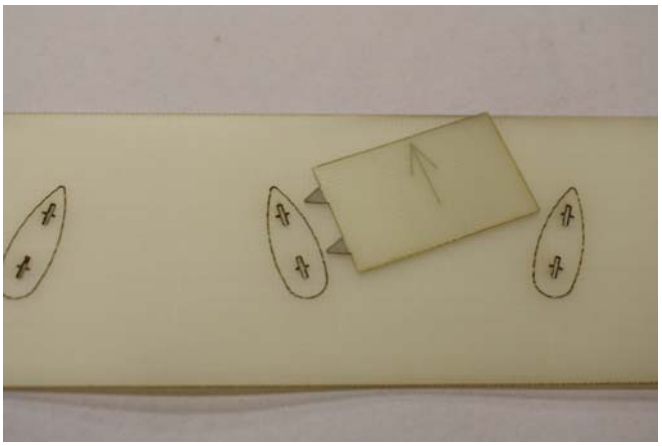
3. Remove and discard the one oval from the template.

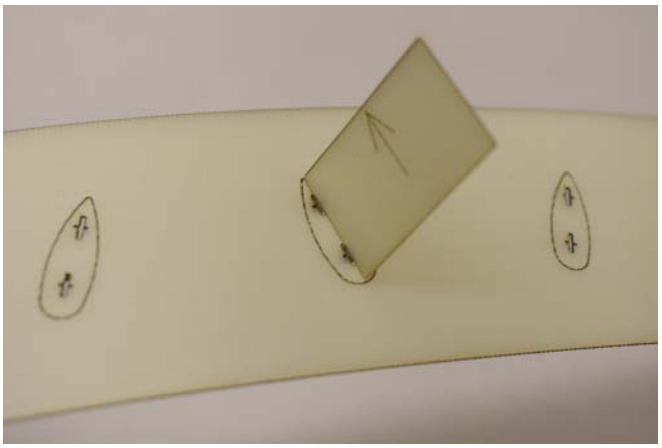


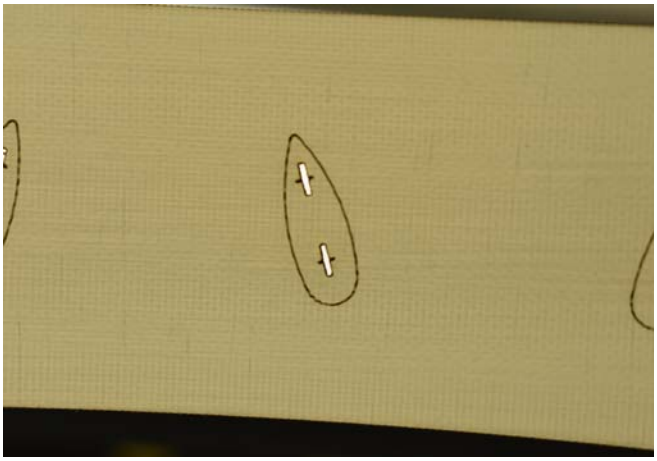
4. Remove these two parts and set aside.



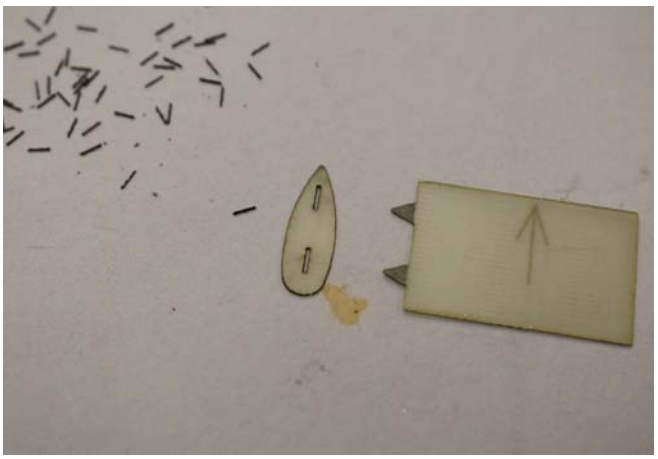
5. Use the piercing tool to push out the tiny rectangles that might be stuck in the template.

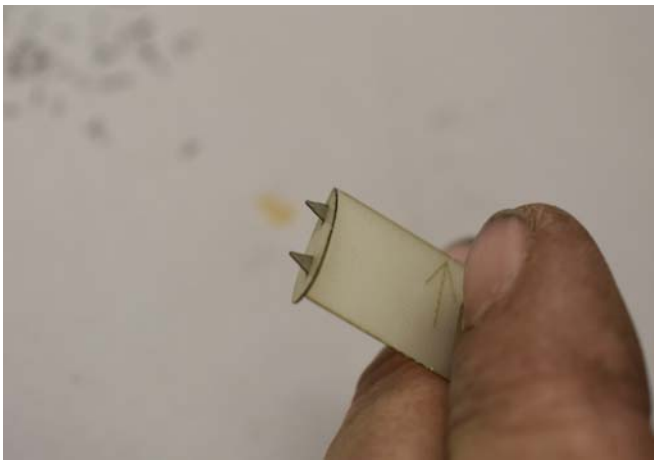






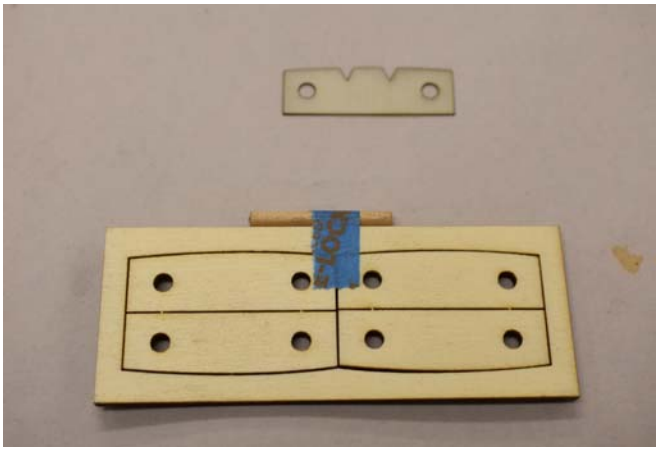
6. Do the same for all the oval pieces.



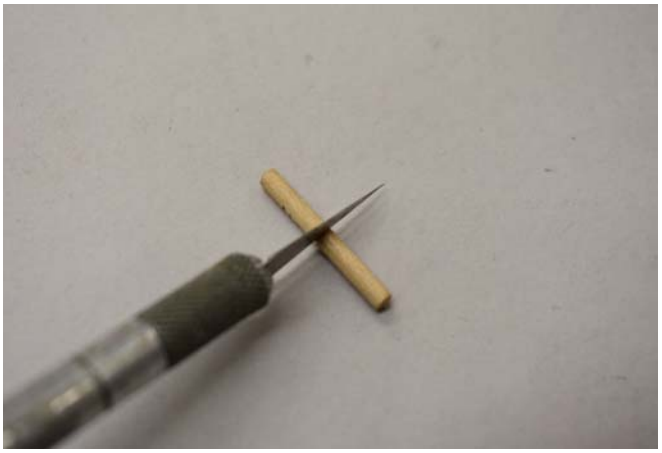


7. Place all the pieces in a small container.

8. Assemble the gluing jig by locating these parts.

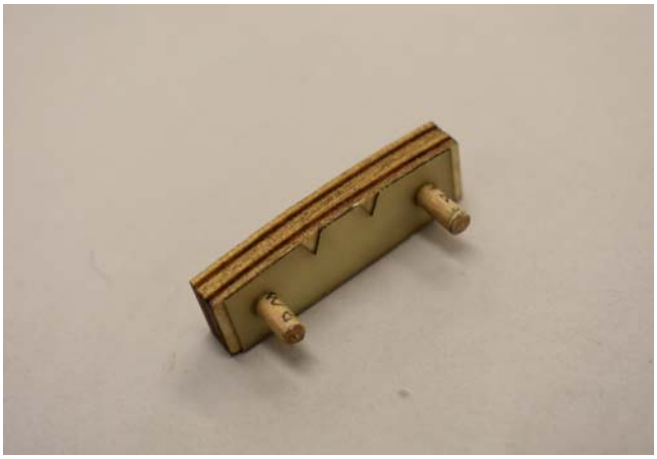


9. Cut the dowel in half.

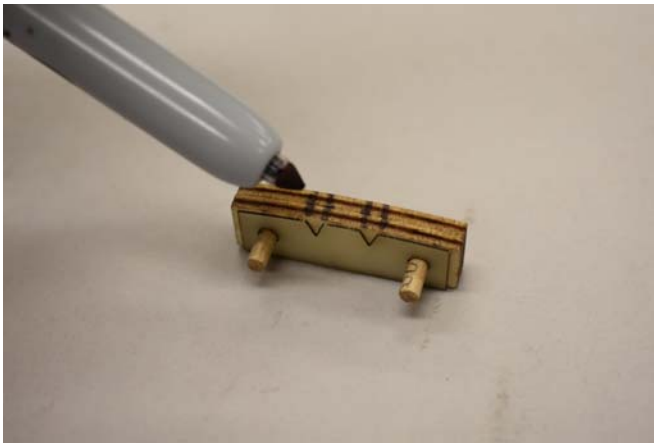


10. Cover one side of two of the lite ply pieces with packing tape. Glue doesn't stick to packaging tape.

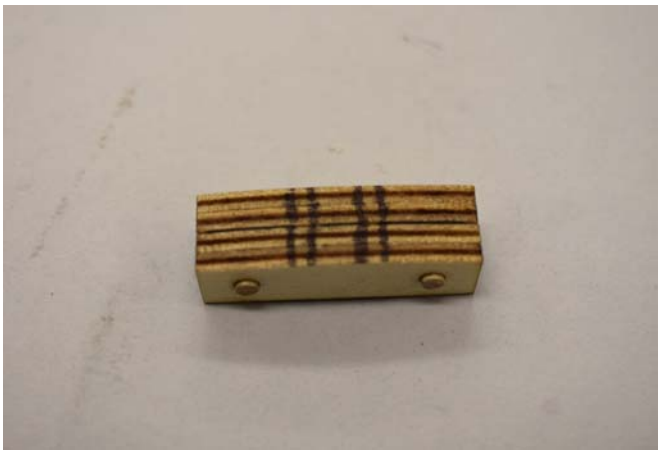
11. Do Not Glue The Jig Together! Slip the dowels through the G-10 piece followed by the packing tape lined lite ply part (tape is towards the G-10 part) followed by a non taped lite ply piece.



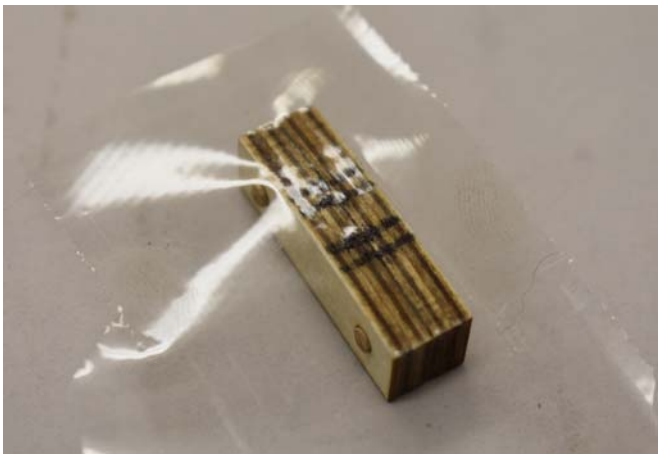
12. Mark the location of the notches as shown.

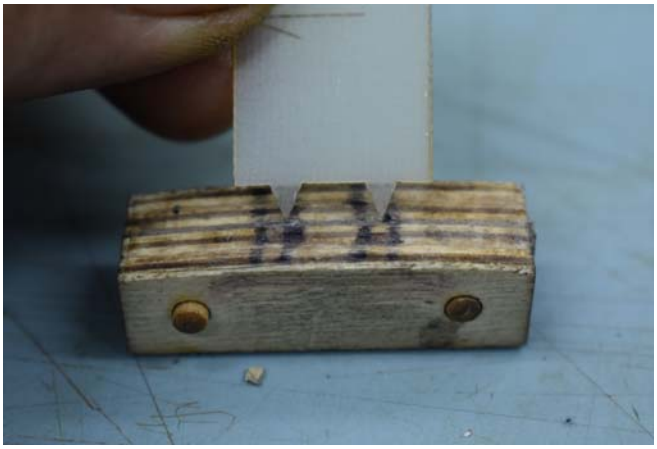


13. Assemble the other half of the gluing jig and continue the marked lines across the top.

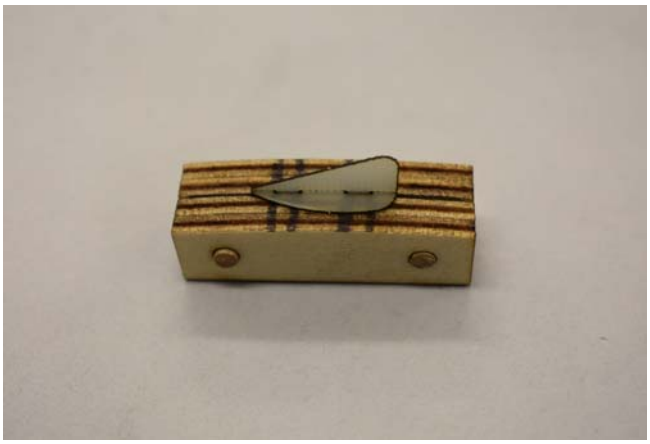


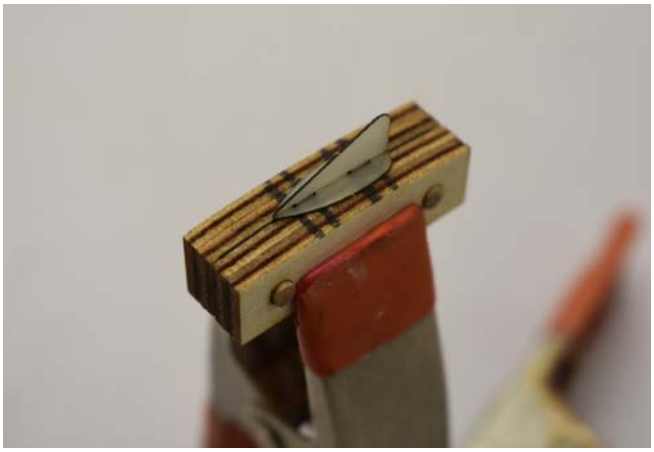
14. Cover the top with packing tape and pierce the tape with the piercing tool.



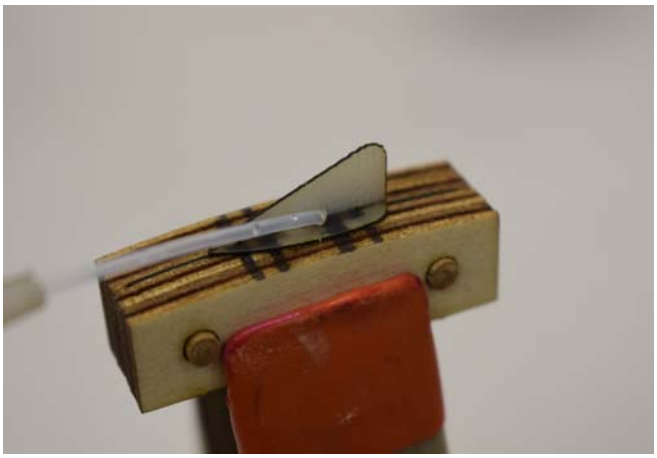


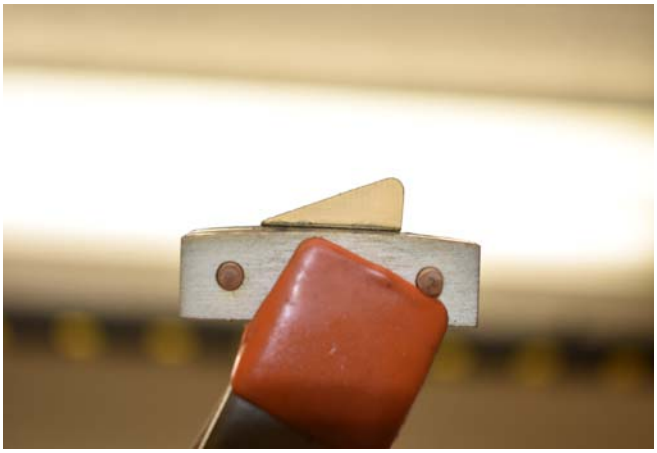
15. To glue a vortex generator. Slip the fin into the oval. Place into the jig, press down and add a clamp.



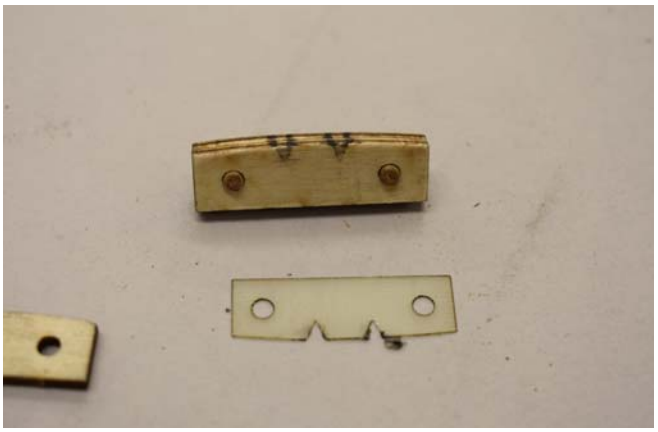


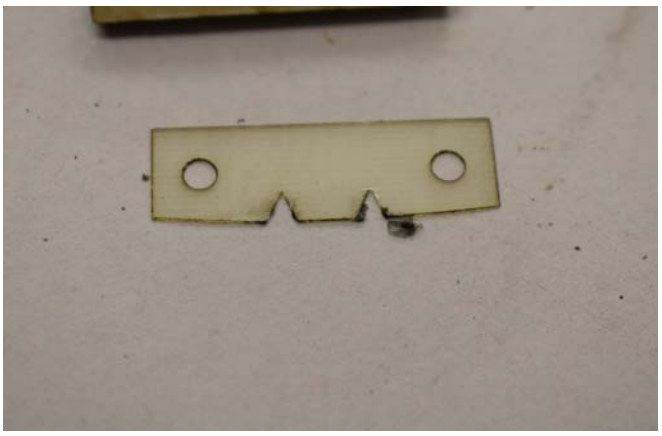
16. Using Thick or Medium CA glue with a fine applicator tip run a small bead along both sides then immediately press down on the fin so it conforms to the curvature of the jig. Hold and hit it with an accelerator.

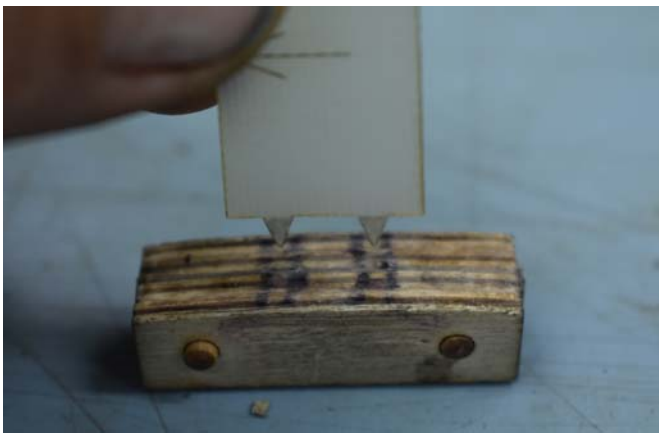




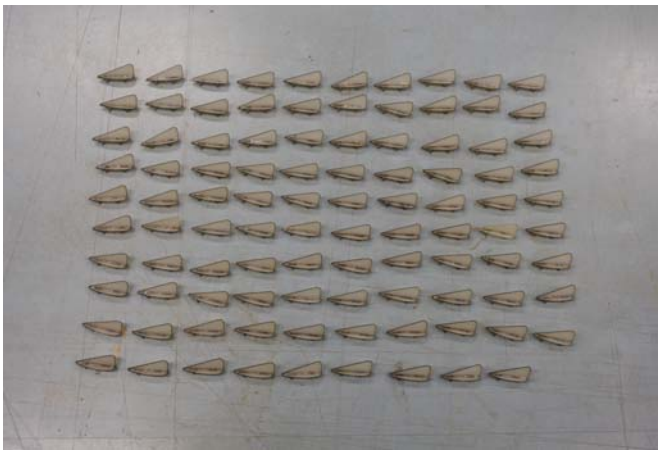
17. Somewhere between 10 to 20 units made, you may need to take apart the jig to clean it from build up of glue. Periodically use the piercing tool to check the V notch depth. Re tape the two lite ply pieces if needed.

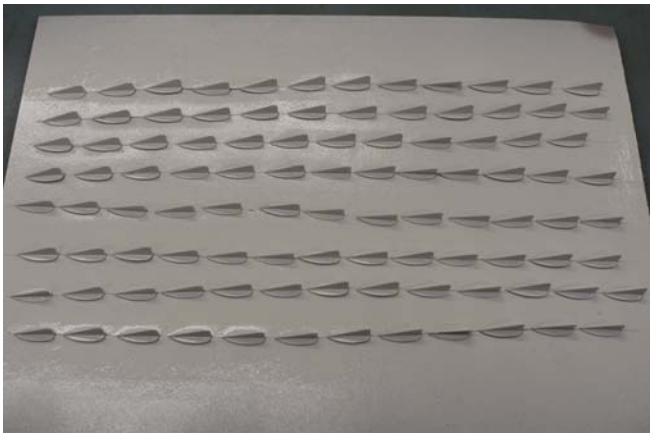




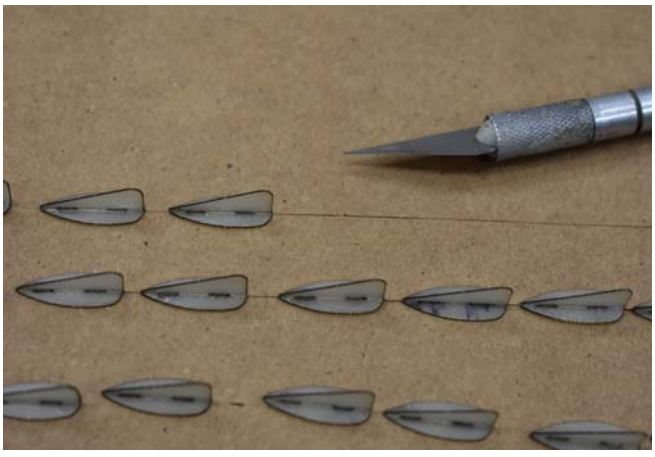


18. There are extra vortex generators supplied. Check the bottom for any excessive glue blobs and cut away.



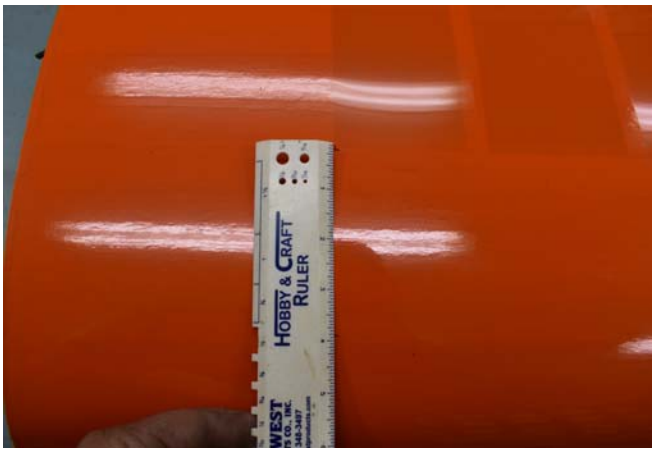


19. Cut long slices in corrugated cardboard (parallel with the corrugations) and stick them into the slices for priming and painting. **Do Not Use The Piercing Tool** for this, the tips will break off.

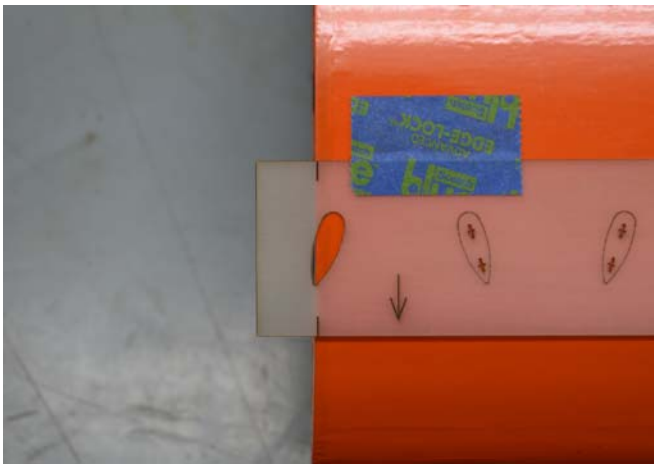


20. Clean the leading edge sheeting thoroughly I used acetone.

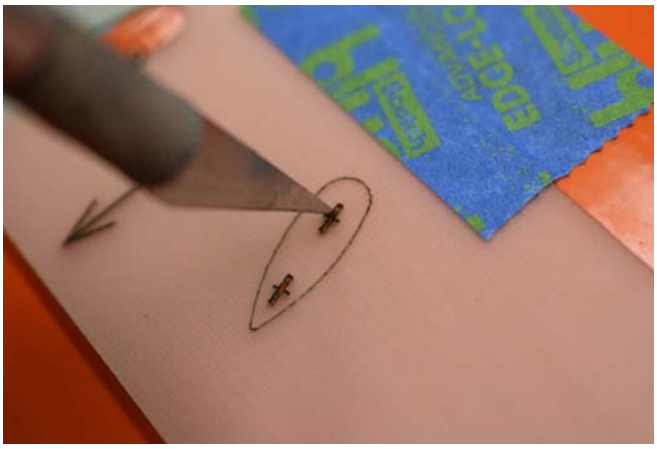
21. Using a fine tip marker, add marks onto the wing. See STEP 3 on the drawing.

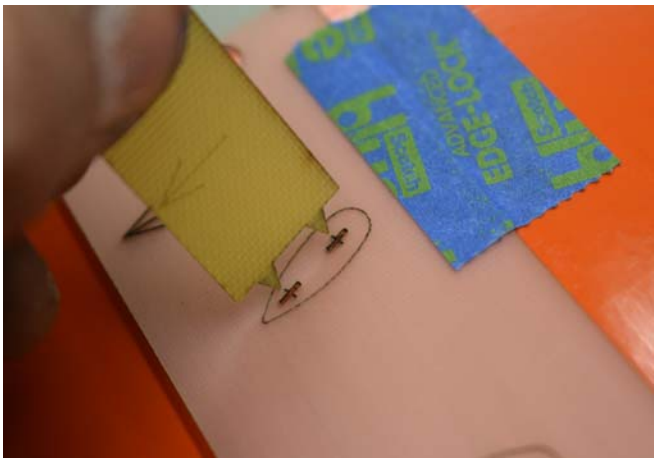


22. Tape the template to the wing as shown in STEP 4 on the drawing. The arrows on the template points towards the leading edge. The first picture shows the start of the template at the root of the wing.

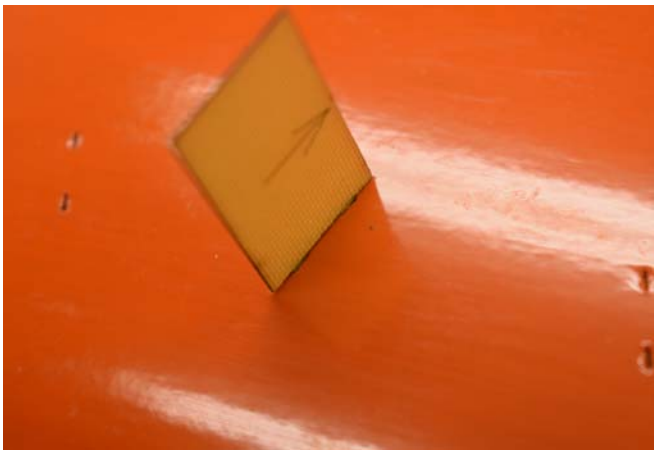


23. Use an X-Acto knife first to slice the covering and balsa sheeting down the center of the rectangular slots. Slice all the way through the thickness of the skin. Then use and insert the piercing tool. Do this for all the locations on the template.





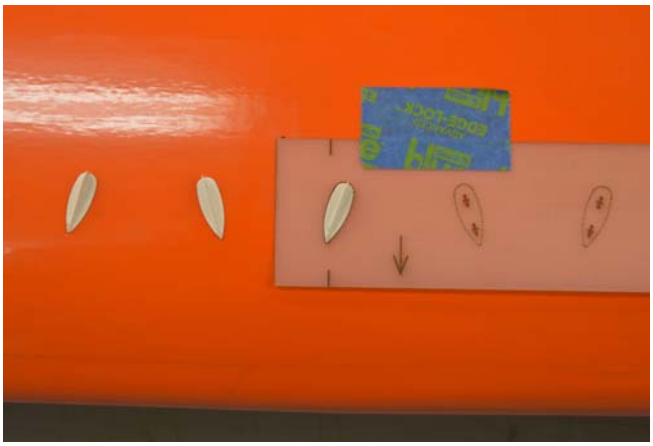
24. Remove the template and re-pierce the slots bottoming out the tool onto the sheeting.



25. Dry install the vortex generators and check that they sit properly onto the wing.

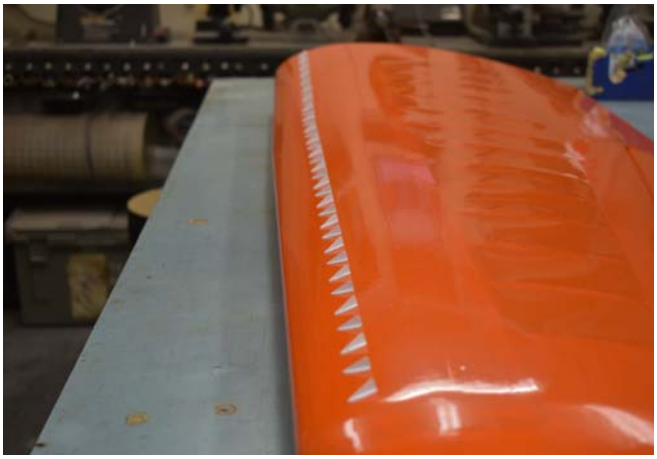
26. Glue in each vortex generator one at a time by adding a line or bead of CA glue between the slots and in both slots. Insert and hold vortex generator for a few moments. Continue with the next one. STEP 5 on dwg.

27. Move the template over as shown on STEP 6 on the drawing. The open end sits onto the last glued vortex generator. The template is not long enough so use another straight edge to line up the mark at the wing tip. Repeat steps 23 through 26 for this line of vortex generators.



28. Move the template over as shown on STEP 7 on the drawing. The open end sits onto the last glued vortex generator. Repeat steps 23 through 26 for these last five vortex generators.

29. Repeat procedure for the other wing.



30. !/4” balsa protectors are provided. Check fit and chamfer edges. Round over and taper at the wing tip. Label L & R with marker.