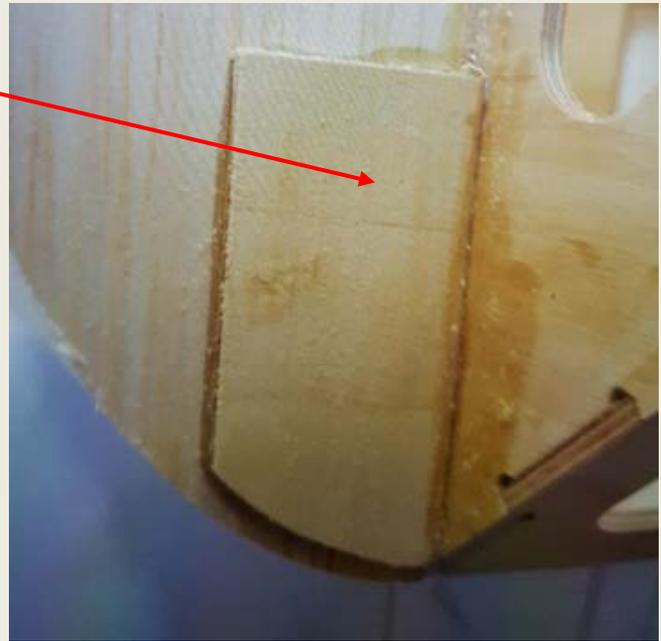


Kam-Aero 43% Extra 300.

Aircraft Assembly - Cowl:

Note: It is important to fit and mount the cowl to the airframe with the hatch in place and the engine mounted in order to ensure proper alignment. The cowl rings may need slight shaping and tailoring in order to achieve a perfect cowl fit. If you need to add material in places, use thin CA and balsa scrap to build the needed thickness.

- Use scrap 1/8 aircraft ply spacers to stand the cowl rings out slightly from F2.

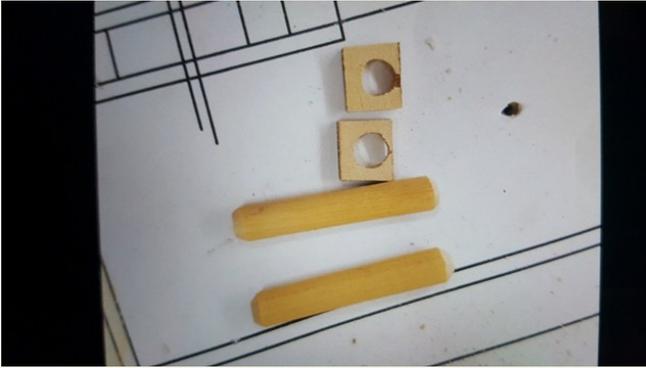


- Position the lower cowl rings against the spacer / F2. Make sure to align the cowl ring slightly inset from the fuselage sides to account for the thickness of the cowl.

- Locate the bolt location - the bolt must pass through the ply F2 former - mark, remove the cowl rings and drill for a 6-32 bolt.

- With the cowl rings repositioned and taped in place, transfer the hole location to F2. Drill F2 for a 6-32 bolt; install a 6-32 blind nut on the inside of F2.

- Using ¼" dowel sections, create hanger pins for the top of the lower cowl rings.
- Drill through the cowl ring into F2.

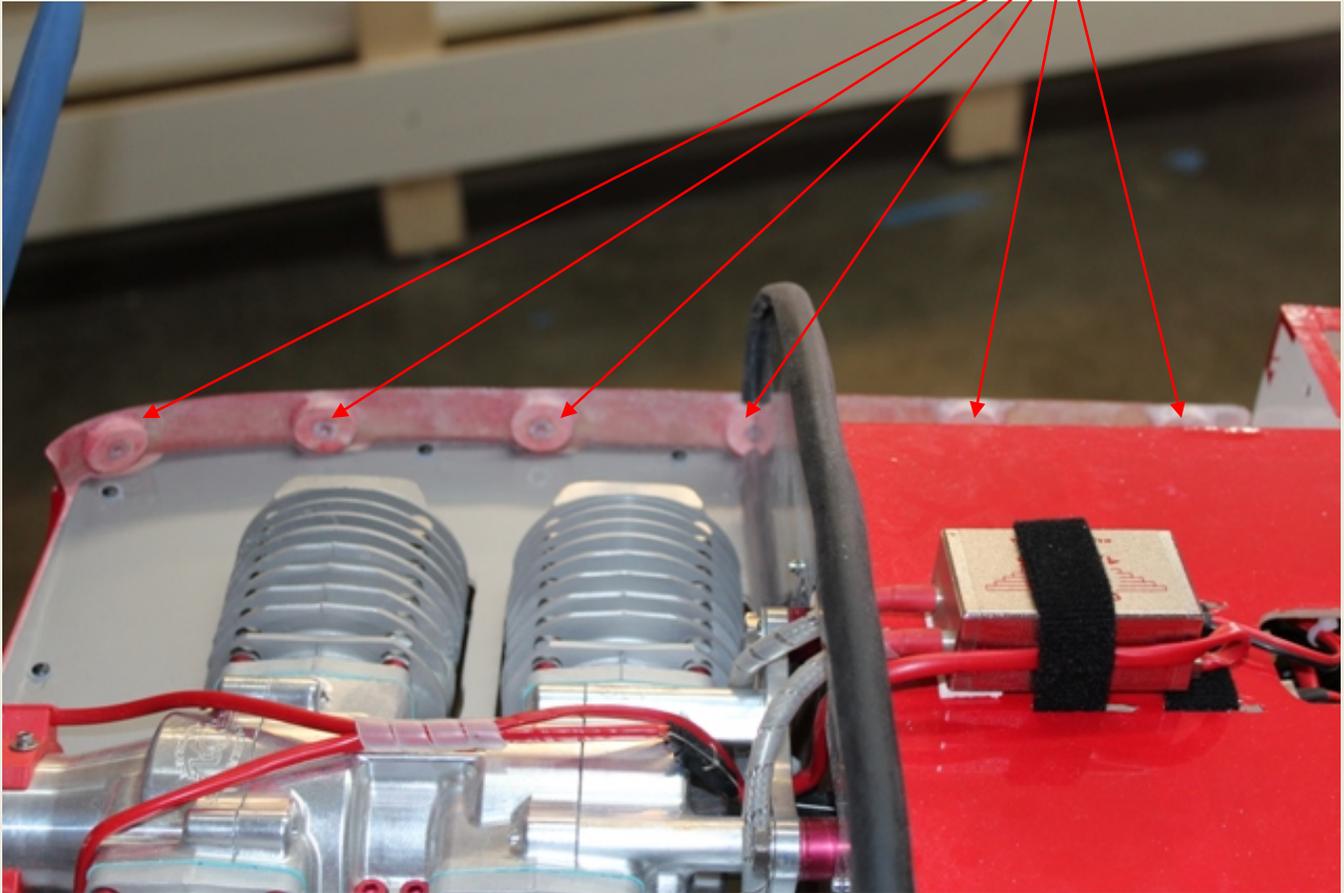


- Using scrap ply, create anchor points inside F2 and glue the pins into F2 and the anchor points. **Do not glue the pins to the cowl rings.**
- With the hatch mounted in place, position, mark, and drill the upper cowl ring. Make certain to account for the thickness of the cowl when positioning the cowl ring.



- Drill the mounting holes through the cowl ring and the bass wood F2 support rail, and install 6-32 blind nuts in the cowl ring.
- Mount the cowl halves to the cowl rings using a high quality epoxy. Note: Make sure you thoroughly clean the fiberglass cowl halves, and place waxed paper between the cowl rings and fuselage to avoid excess glue from adhering the cowl to the fuselage.

- Mount both top and bottom cowl halves to the airframe and tape them securely together along the join-line.
- Plan, mark, and drill the bolt hole locations for joining the top and bottom cowls. I use six to eight 4-40 bolts on each side of the cowl.
- Using the 1" x 1/8" strip of aircraft ply, cut and drill a blind nut anchor-pad for each of the bolt holes. Note: I used 1/4" lite-ply for my anchor-pads.



- Install the anchor pads (with blind nuts installed) to the lower half of the cowl with epoxy. I complete this step with the cowl halves still mounted to the airframe and taped together by using a bolt at each pad location to pull it snug to the cowl. Note: Do not tighten the bolt so much that you squeeze all the glue out of the joint.
Tip: Lightly coat the threads of the bolts with Vaseline, this prevents you from gluing the bolt in place in case epoxy gets into the threads.