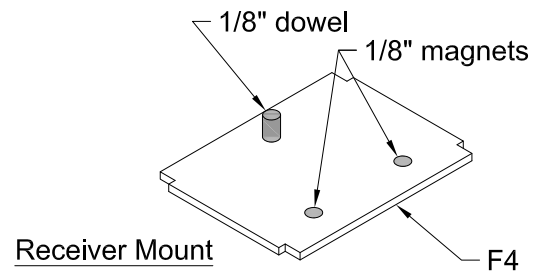
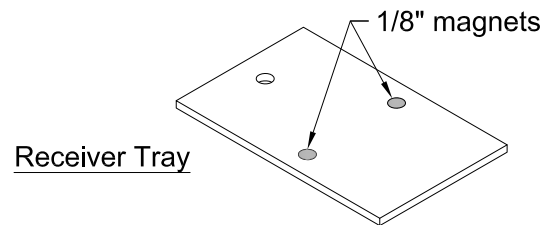
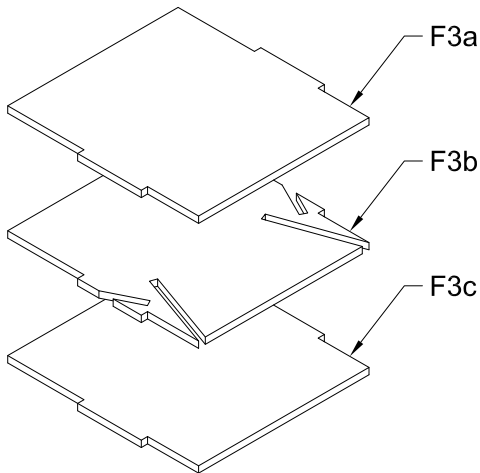
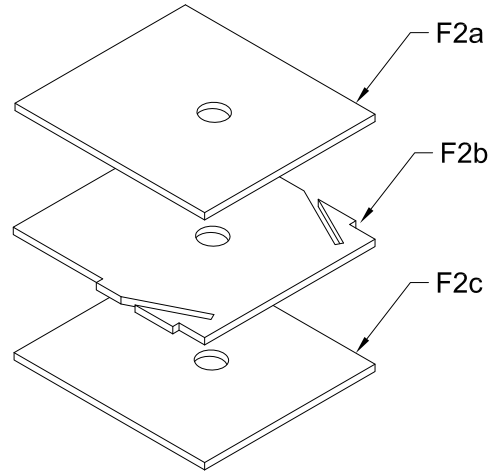
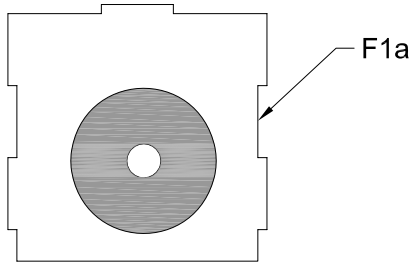
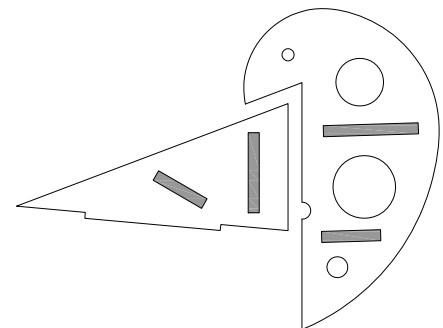
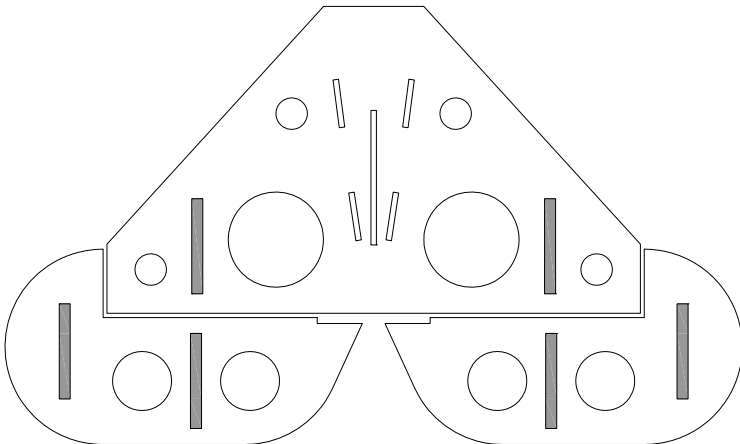


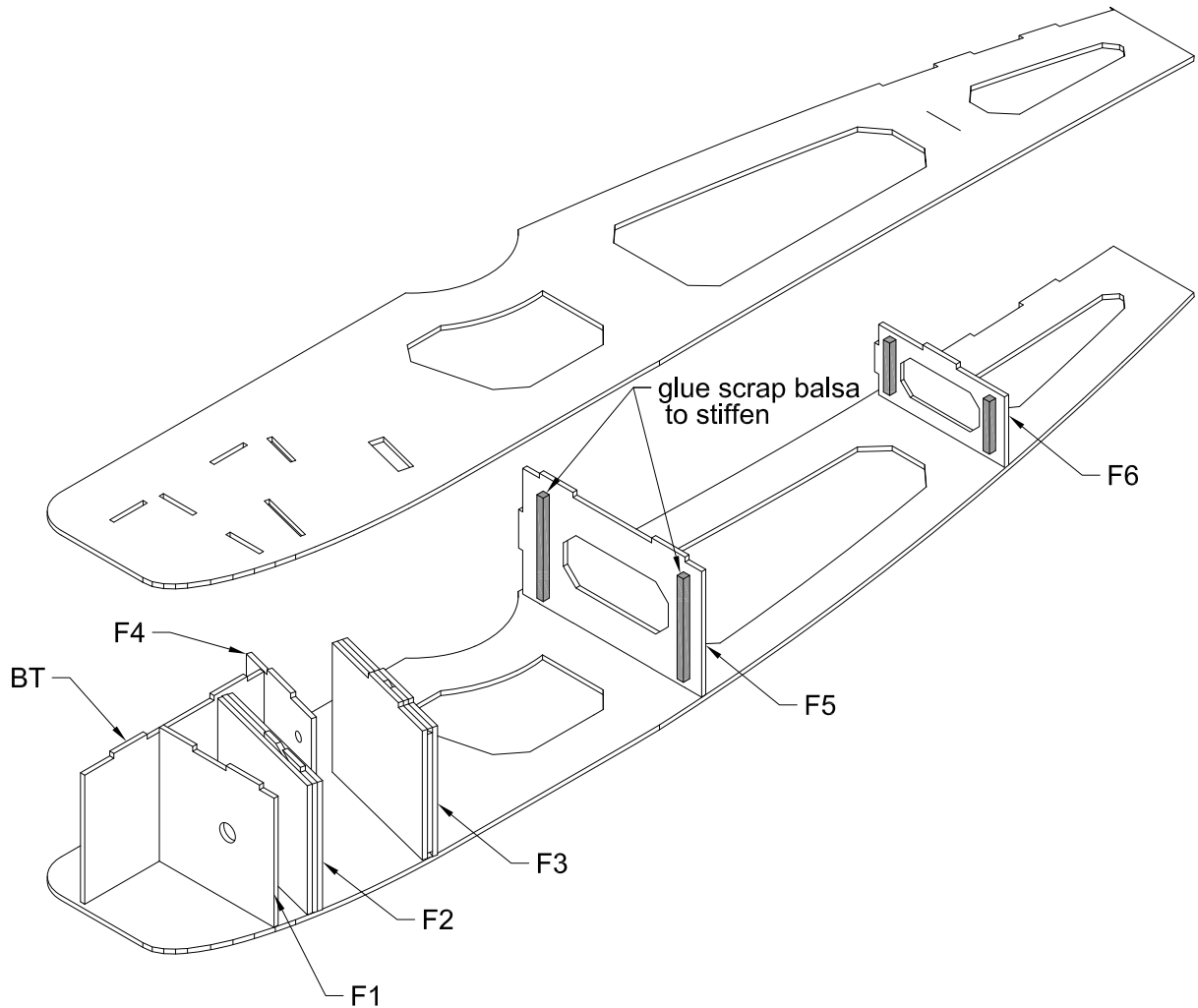
1. If you intend to use the GWS LPS or other tube mounted motor system, glue the 1/32" ply reinforcing disk to former F1. Laminate fuselage formers F2 & F3. Cut and glue 1/4" long piece of 1/8" diameter dowel into the Receiver Tray mount. Glue the included rare earth magnets into the Receiver Mount and the Receiver Tray using either epoxy or thick CA.
****IMPORTANT**** - When laminating F2 and F3, the part numbers MUST face up.



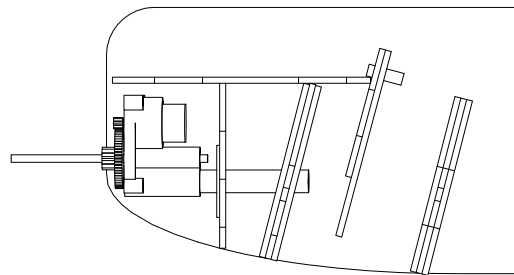
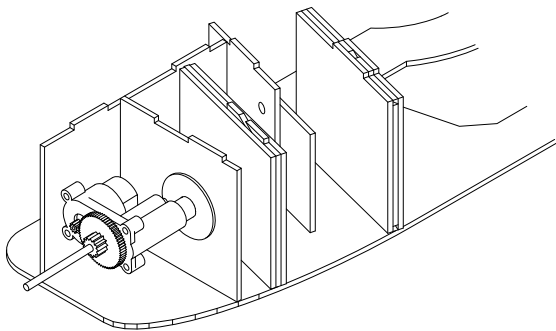
2. Glue the cross-grain reinforcement pieces into the horizontal and vertical stabilizers. The cross-grain pieces are located directly next to or contained within their respective parts.



3. Fit formers F1-F6 and BT onto one of the fuselage sides. Fit opposite fuselage side in place, make sure parts F1-F5 and BT are fully seated into both sides and that the fuselage looks square. When satisfied with the fit and alignment, glue parts F1-F5 and BT to the fuselage sides.
****IMPORTANT**** - F1 and F2 need to be installed with the part numbers towards the front of the plane.

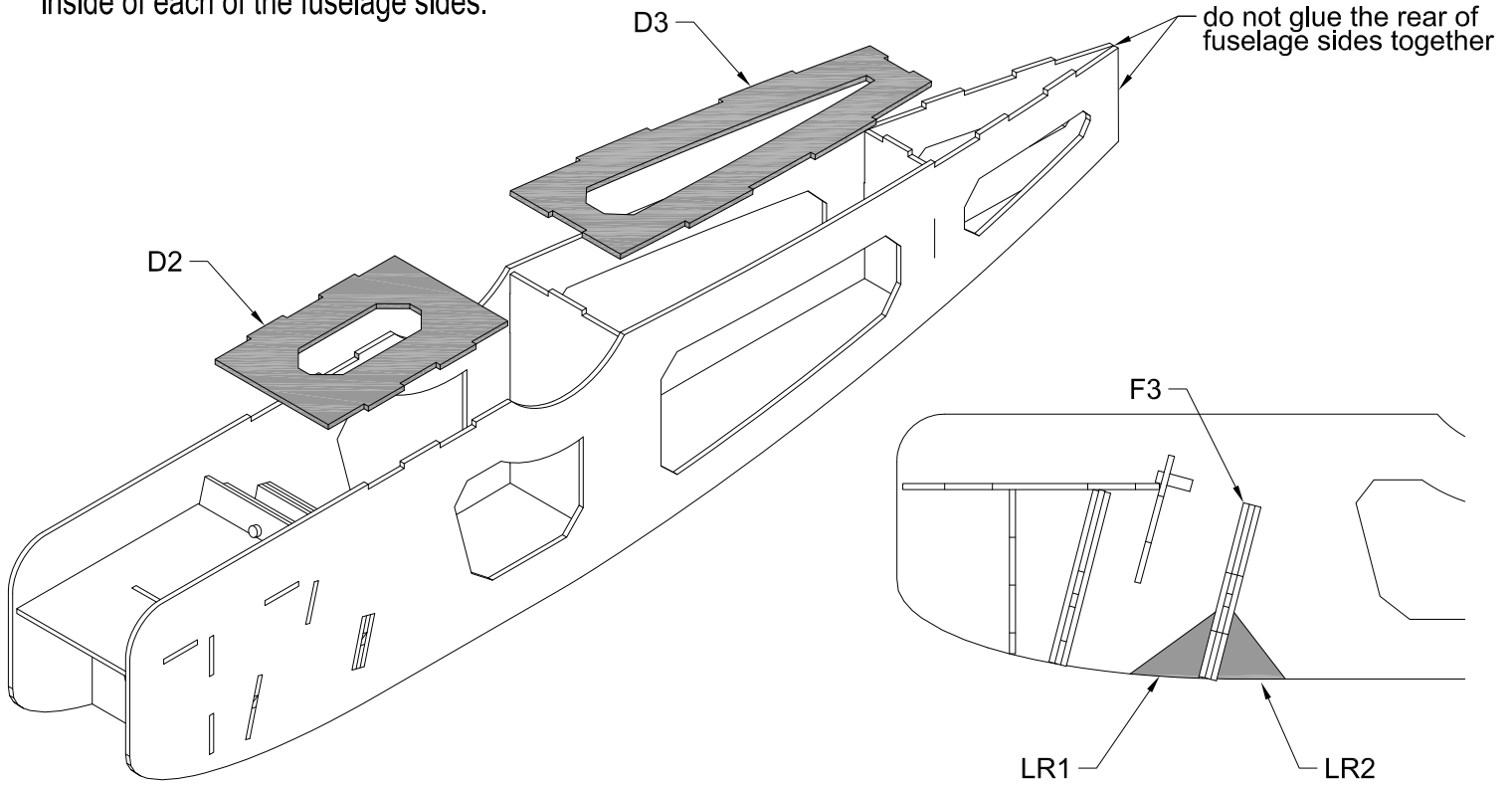


4. If you intend to use a tube mounted motor system, place motor onto the included carbon fiber mounting stick and into the holes in F1 and F2 until just the shaft of the LPS drive is sticking out of the nose. Glue mounting stick to F1 and F2. Disregard this step if you intend to use a firewall mounted brushless motor.

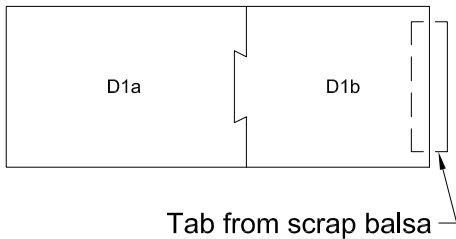


Side View

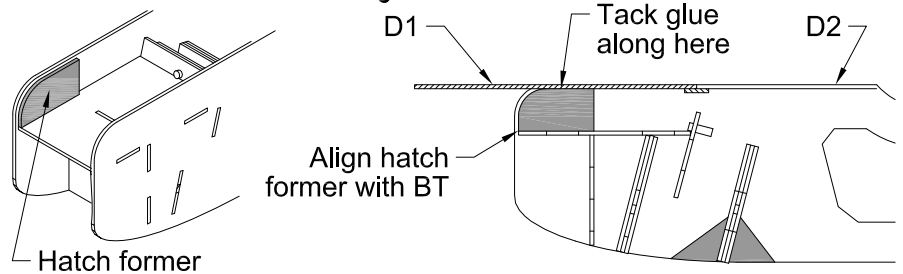
5. Bend the rear fuselage sides together and glue former F6 to the fuselage sides. Fit and glue D2 and D3 in place. Do Not glue the rear of fuselage sides together. Glue landing gear reinforcements LR1 and LR2 in place on the inside of each of the fuselage sides.



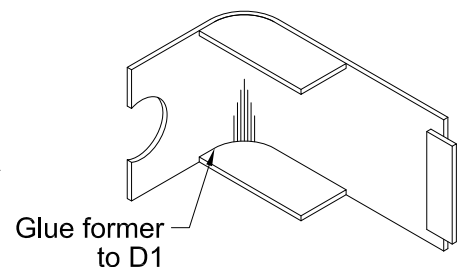
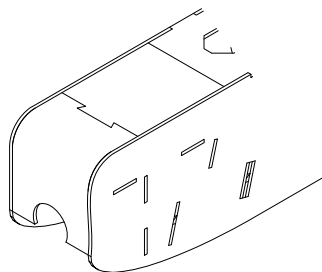
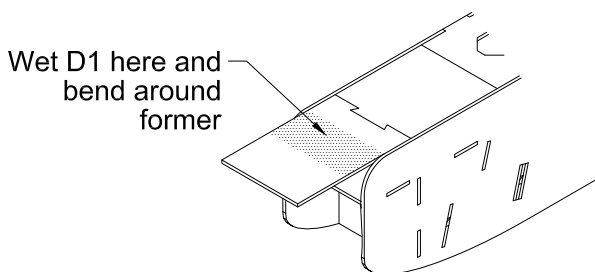
- 6a. To make the battery hatch, fit and glue D1a and D1b together. Glue a tab made from scrap balsa to D1b.



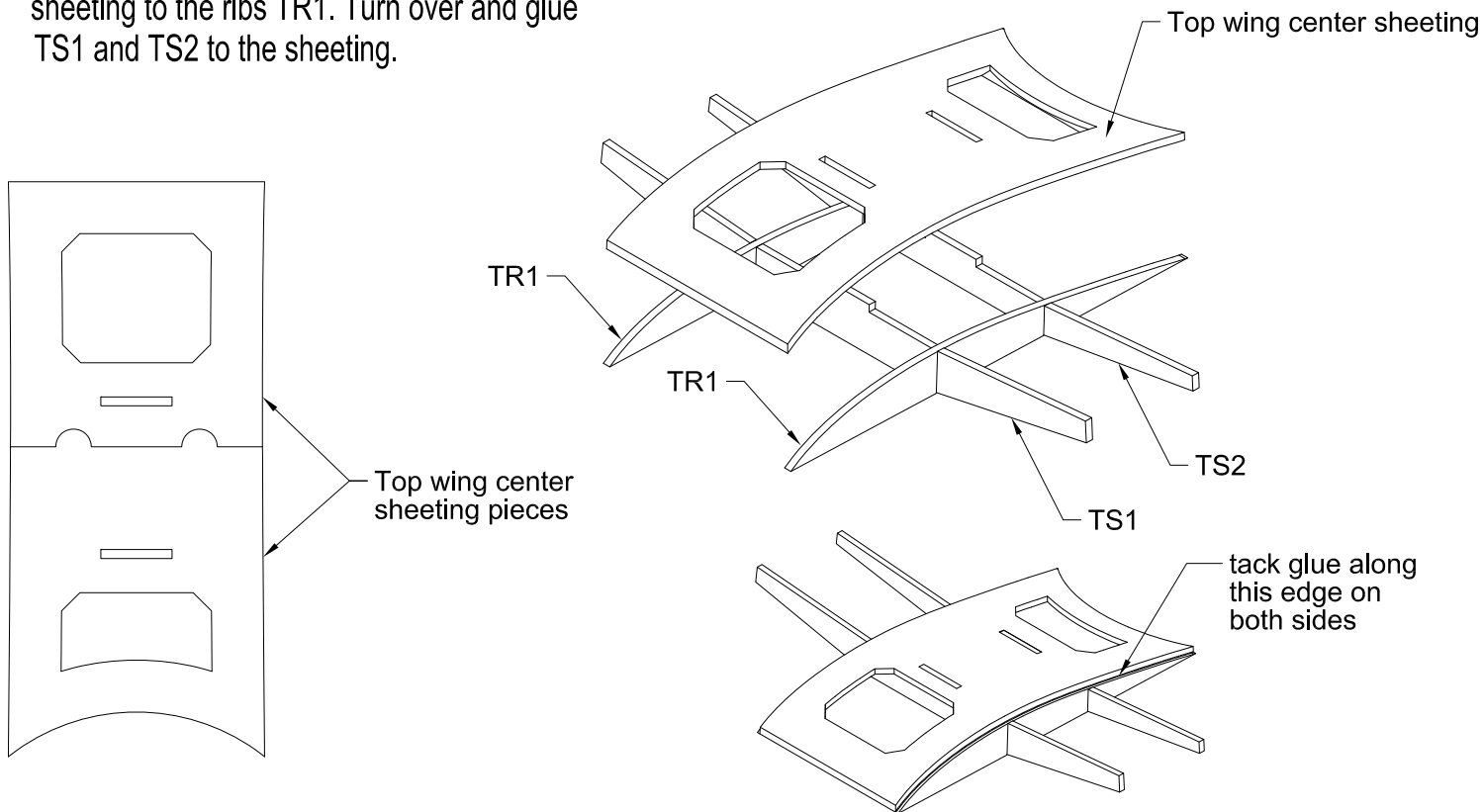
- 6b. Align hatch formers with the front of BT and hold in place with tape or magnets. Slide D1 in place and tack glue D1 to hatch formers with thick CA. ****Caution** Do Not glue D1 or hatch formers to the fuselage sides!**



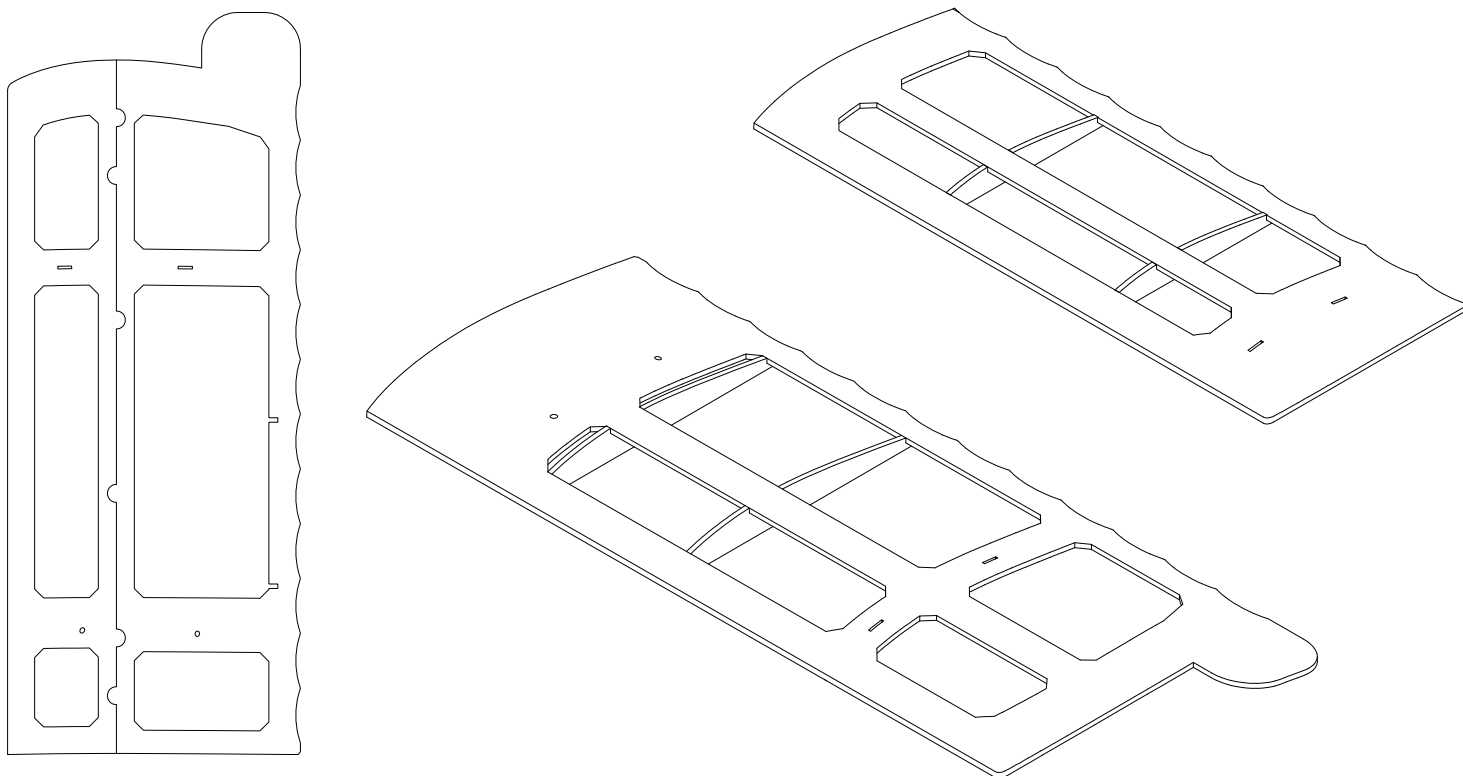
- 6c. Wet D1 and bend down around hatch formers. When dry, remove hatch and finish gluing hatch formers to D1. Trim hatch as necessary to fit around motor.

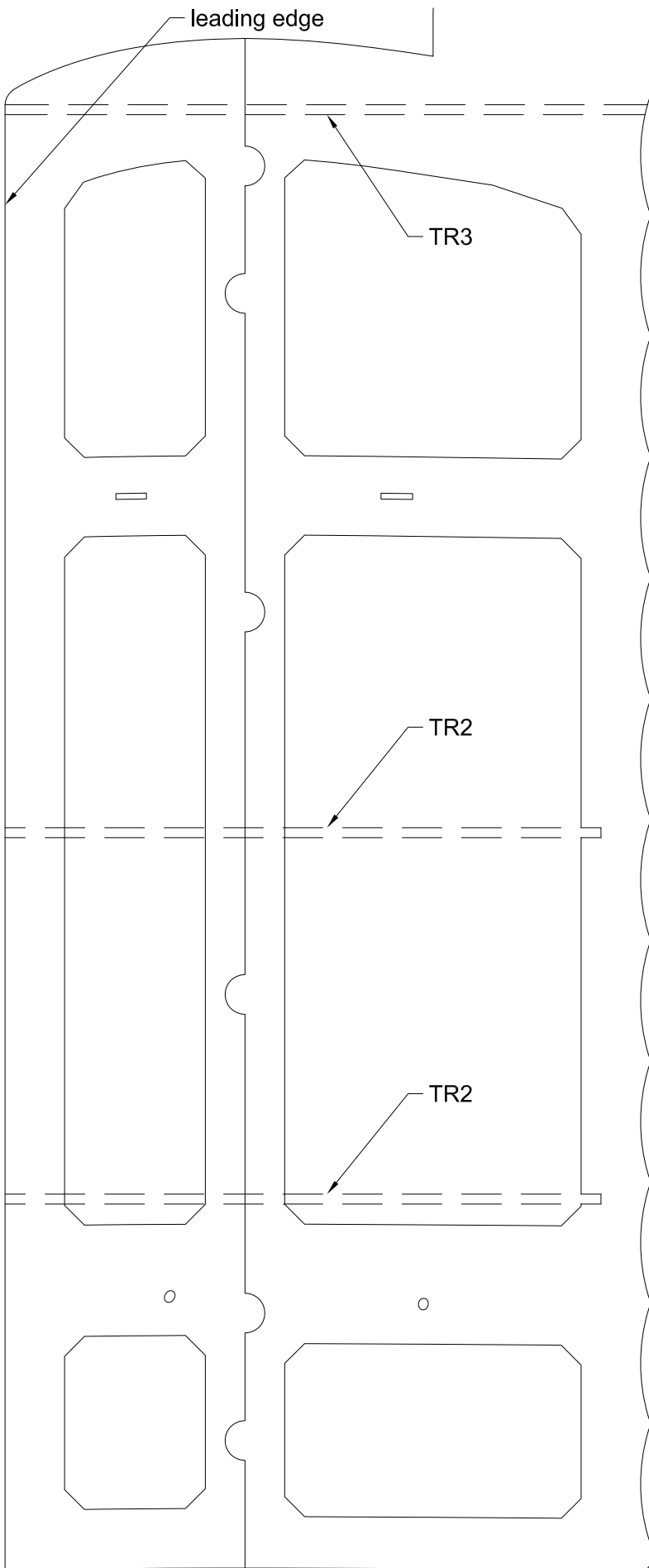


7. Glue together the two pieces that form the top wing center sheeting. Carefully fit ribs TR1 into the slots in TS1 and TS2, do not glue yet. Fit the tabs in TS1 and TS2 into the slots into the top wing center sheeting. The sides of the sheeting should align with the center of the ribs. Keep the assembly on a flat surface and carefully tack glue the sheeting to the ribs TR1. Turn over and glue TS1 and TS2 to the sheeting.



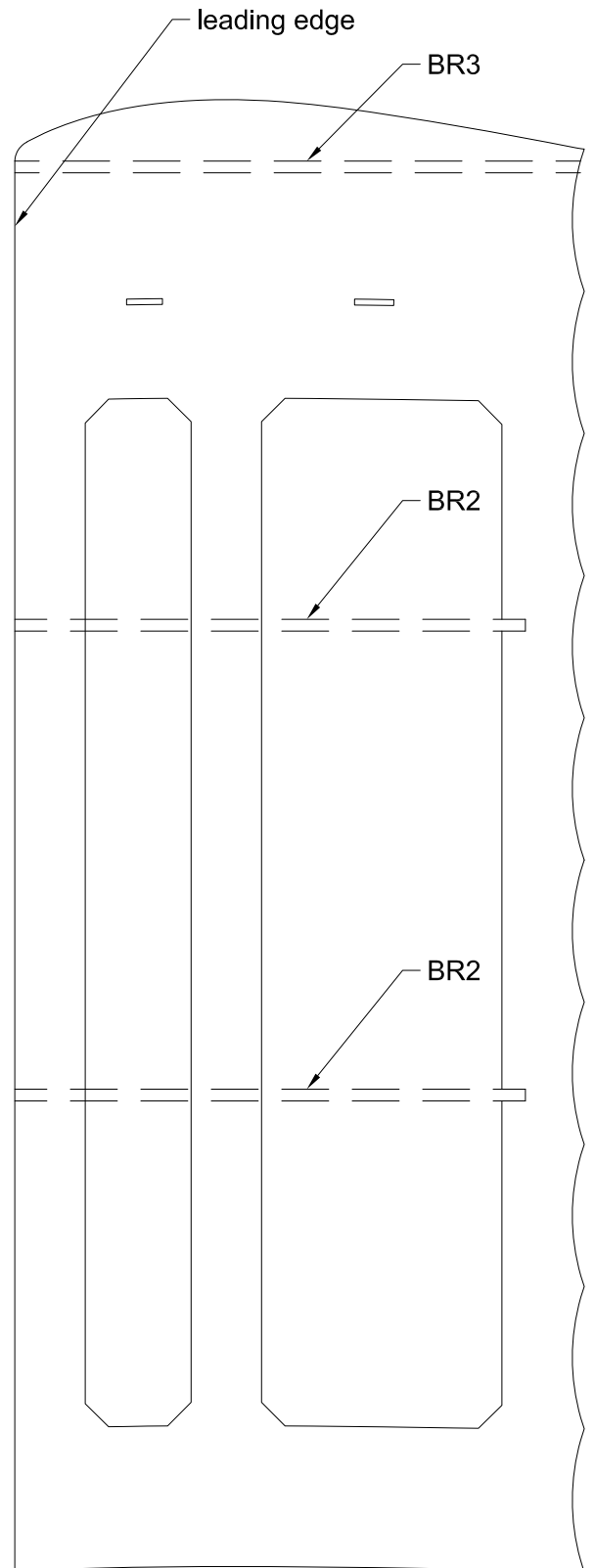
8. Glue together the two pieces that form the upper wing panel. Glue the ribs TR2 - TR3 to the upper wing panel and the ribs BR2 - BR3 to the lower wing panel (refer to plan on following page). Make sure you build a left and right wing panel for the top and bottom wings!





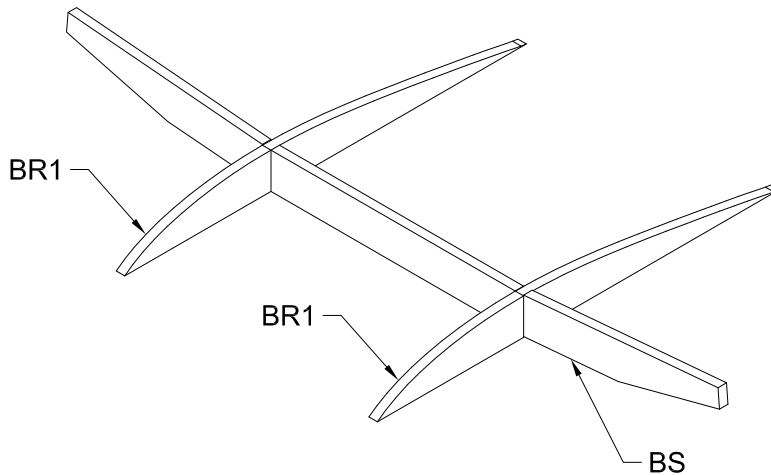
Upper Wing Rib plan

**** Be sure to make a ****
**** left and right wing ****

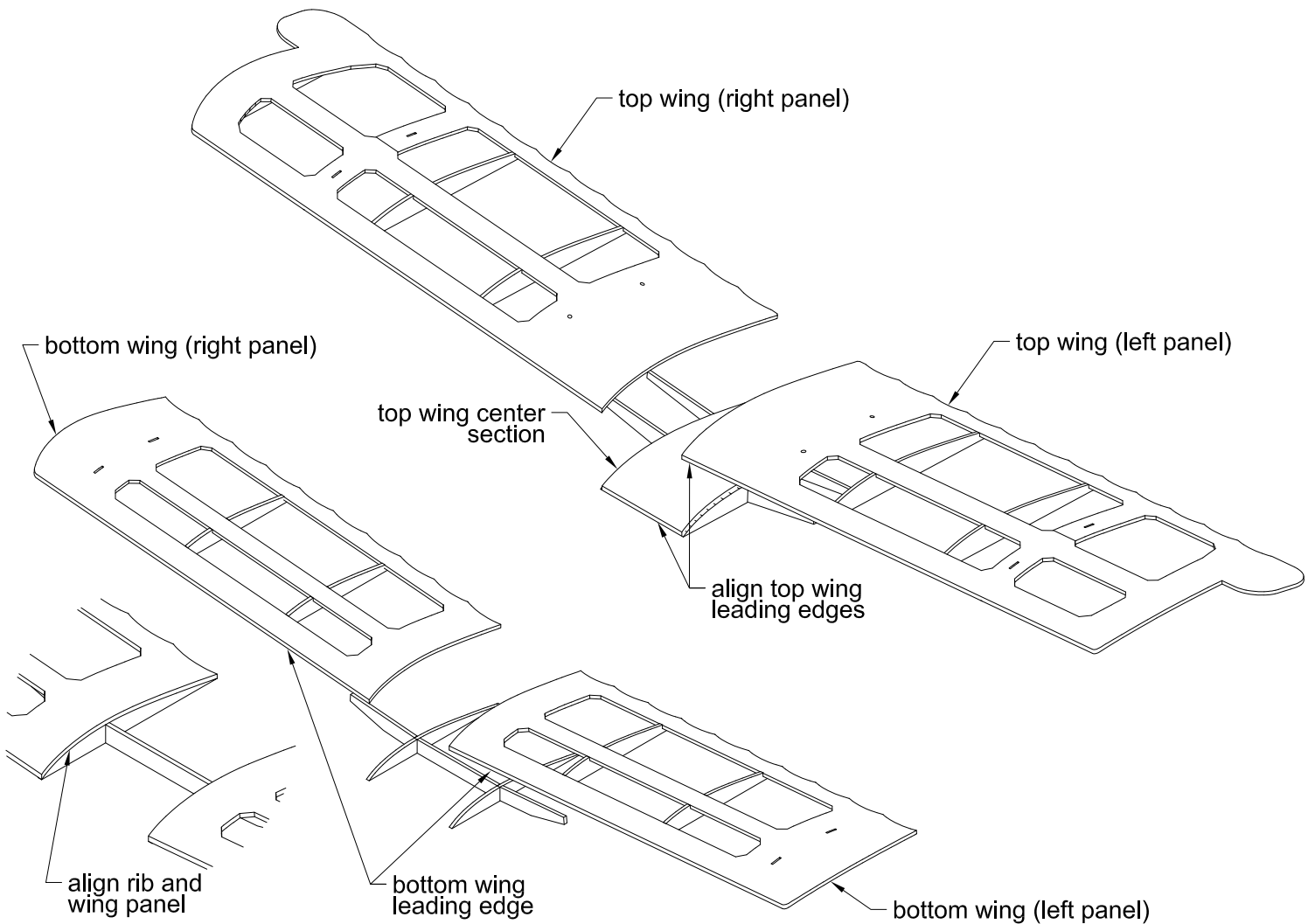


Lower Wing Rib plan

9. Carefully fit ribs BR1 into the slots in BS. Do not glue together yet!

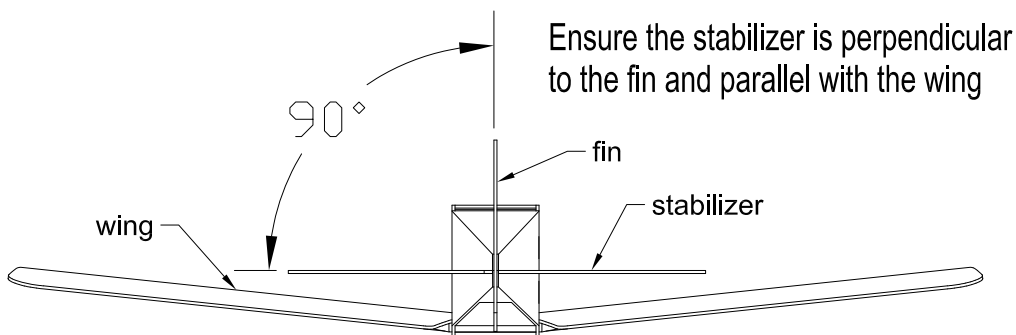
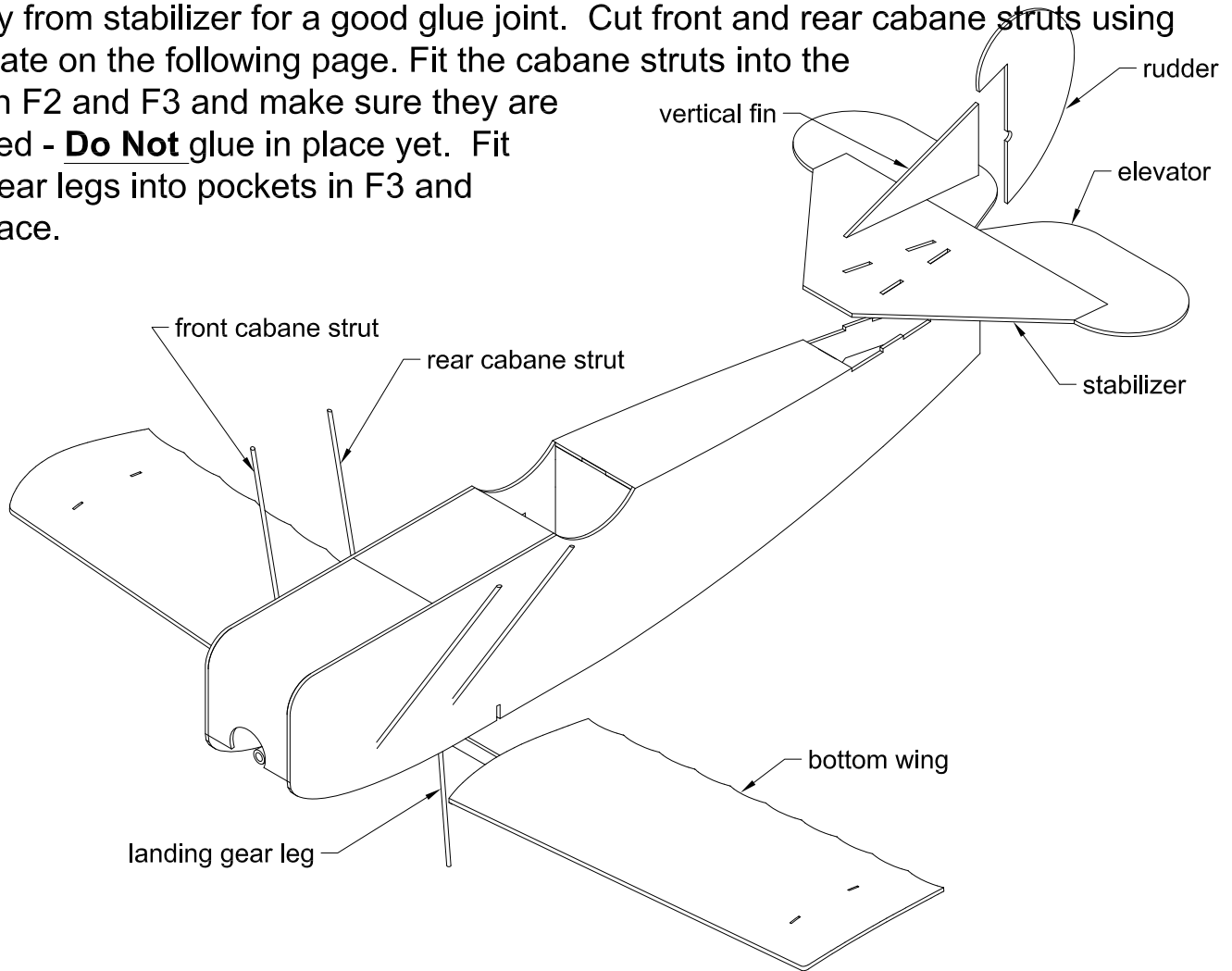


10. Assemble the top and bottom wing panels. Align the leading edge of the top wing panels with the leading edge of the top wing center section. When satisfied with the fit, glue wing panels to ribs TR1 and the wing spars. For the bottom wing, align the bottom wing panel with rib BR1 and glue to BR1, Do Not glue to bottom wing spar yet.

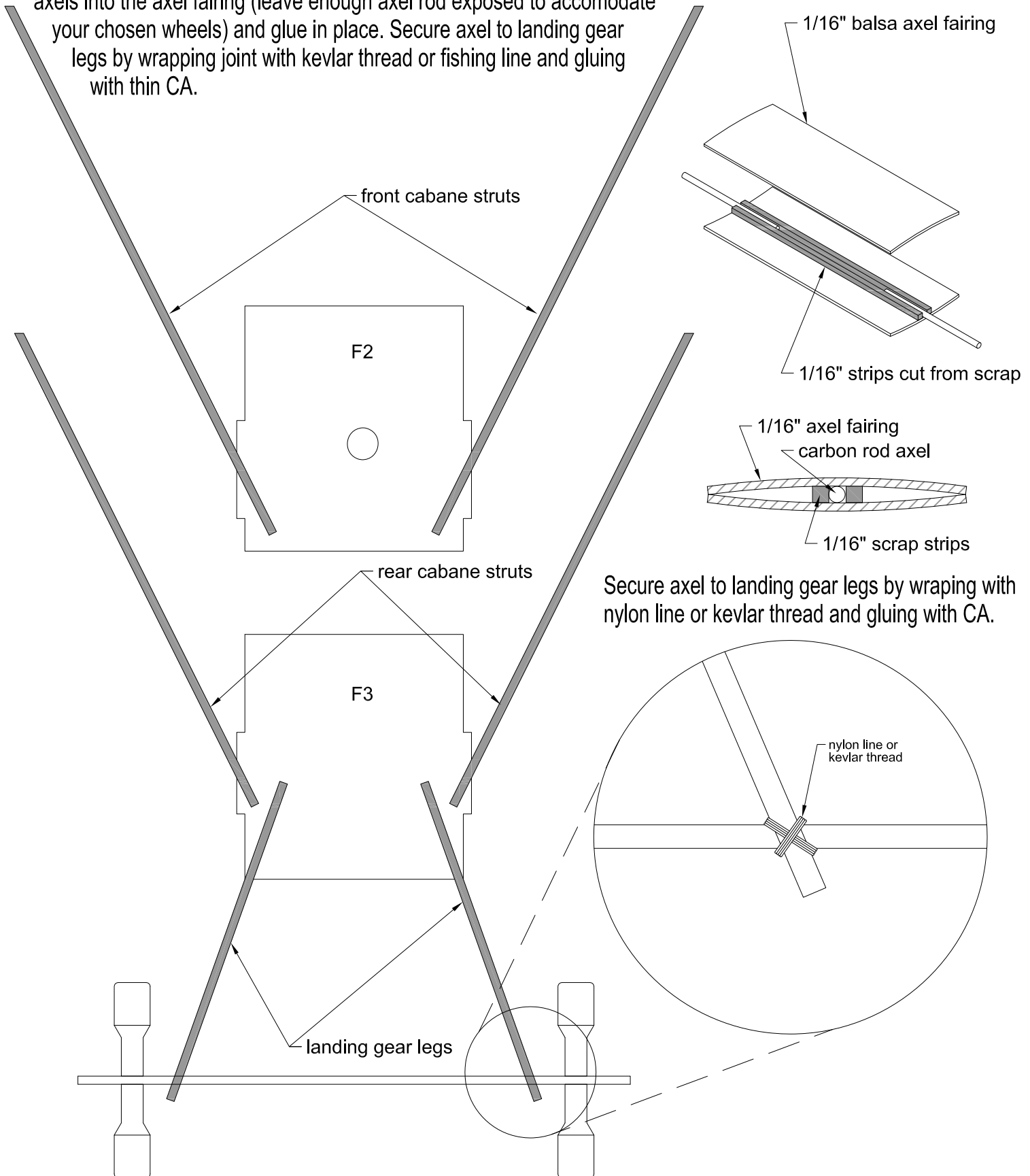


11.

It is a good idea to cover all parts before beginning final assembly. Trim covering from the slot in the fuselage side for the bottom wing spar. Fit bottom wing in place and trim away covering as necessary for a good glue joint. Ensure bottom wing is fully seated the slots in the fuselage sides and that the bottom of BR1 is aligned with the bottom of the fuselage sides and glue in place. Finish gluing bottom spar BS to the bottom wing panels. Test fit the stabilizer in place, trim away covering as necessary for a good glue joint. It may be necessary to twist the rear of the fuselage a little to align the stabilizer parallel with the wing. When satisfied with the alignment, glue the rear of the fuselage sides together and the stabilizer in place. Trim covering from slot in the stabilizer for the vertical fin. Test fit vertical fin, trim away covering as necessary from stabilizer for a good glue joint. Cut front and rear cabane struts using the template on the following page. Fit the cabane struts into the pockets in F2 and F3 and make sure they are fully seated - **Do Not** glue in place yet. Fit landing gear legs into pockets in F3 and glue in place.

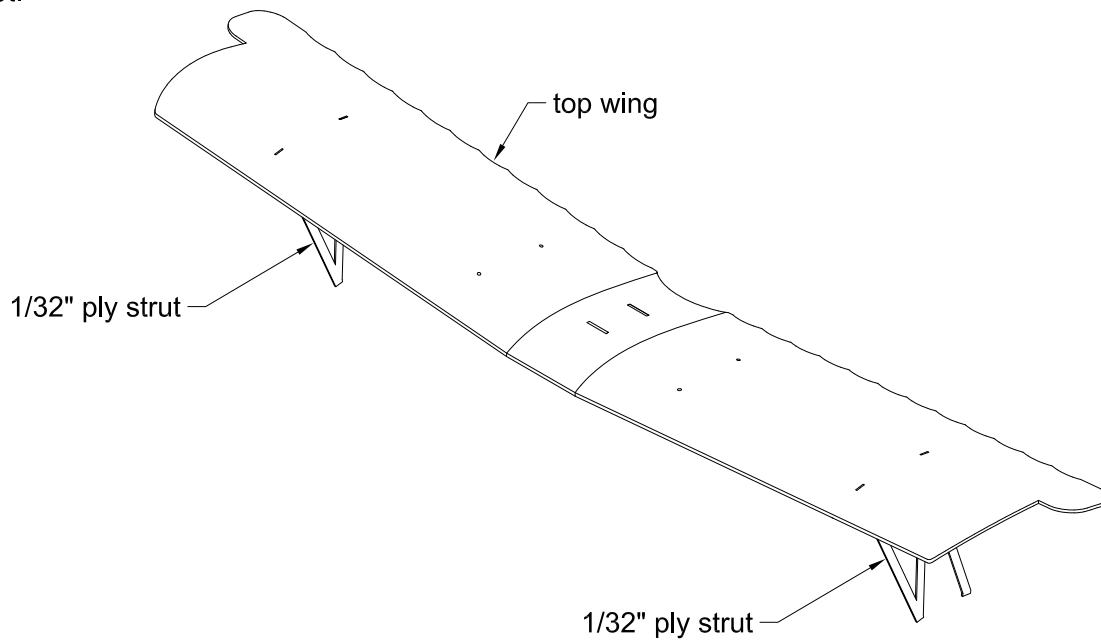


12. Cut the carbon rod to length carefully as there is only enough to cut the parts necessary. Cut the front and rear cabane struts and the landing gear legs to length. Cut the remaining length of carbon rod in half for the axel. Mark the center line of the bottom axel fairing, cut two 1/16" strips from scrap and glue to the axel fairing to form a channel for the carbon rod axel. Fit top axel fairing in place, bend edges together and glue. Insert carbon rod axels into the axel fairing (leave enough axel rod exposed to accomodate your chosen wheels) and glue in place. Secure axel to landing gear legs by wrapping joint with kevlar thread or fishing line and gluing with thin CA.

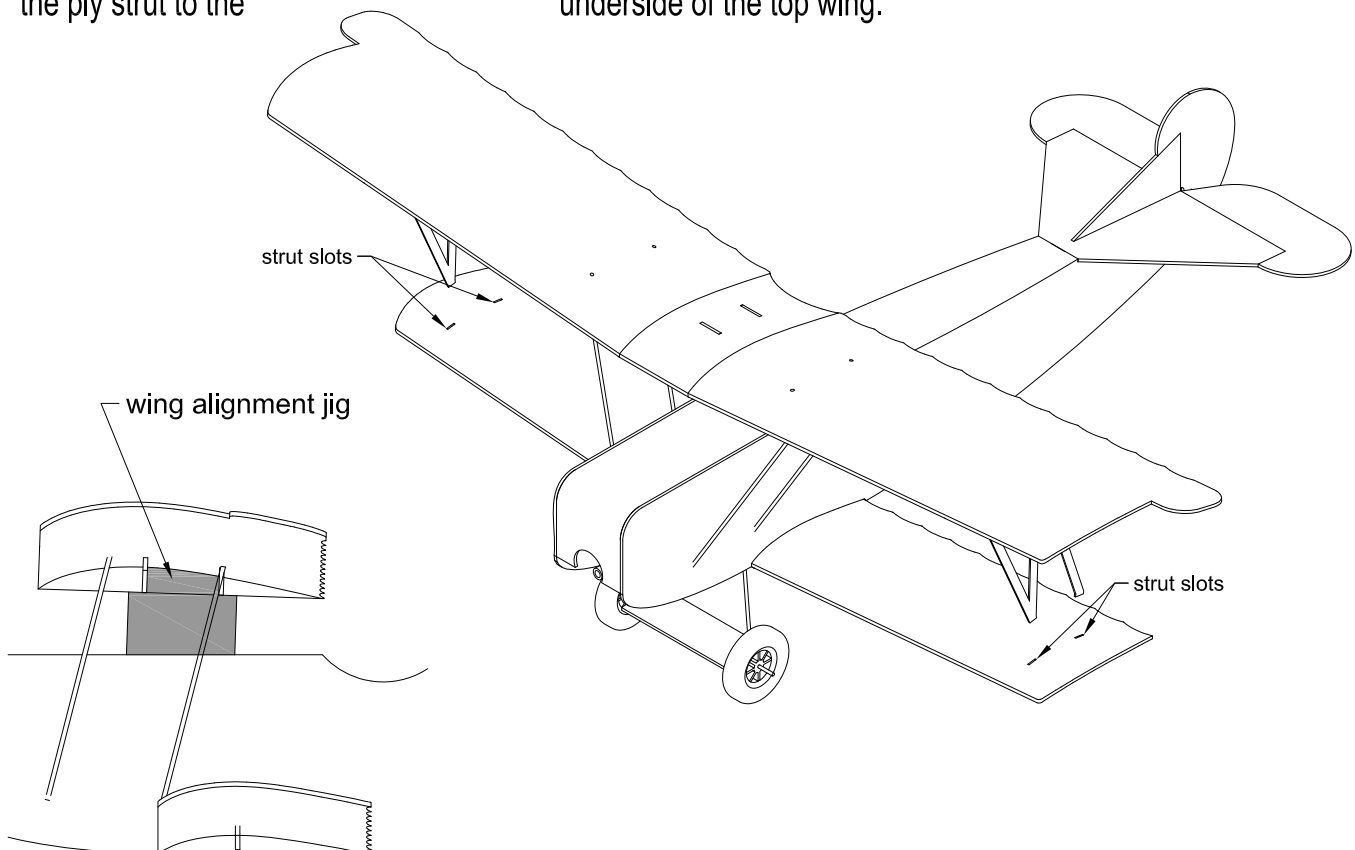


Secure axel to landing gear legs by wrapping with nylon line or kevlar thread and gluing with CA.

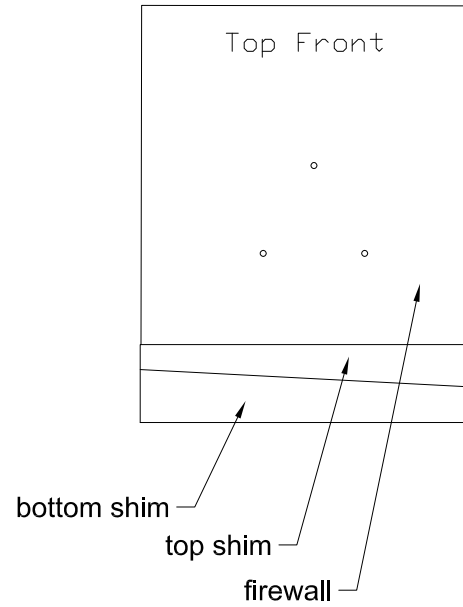
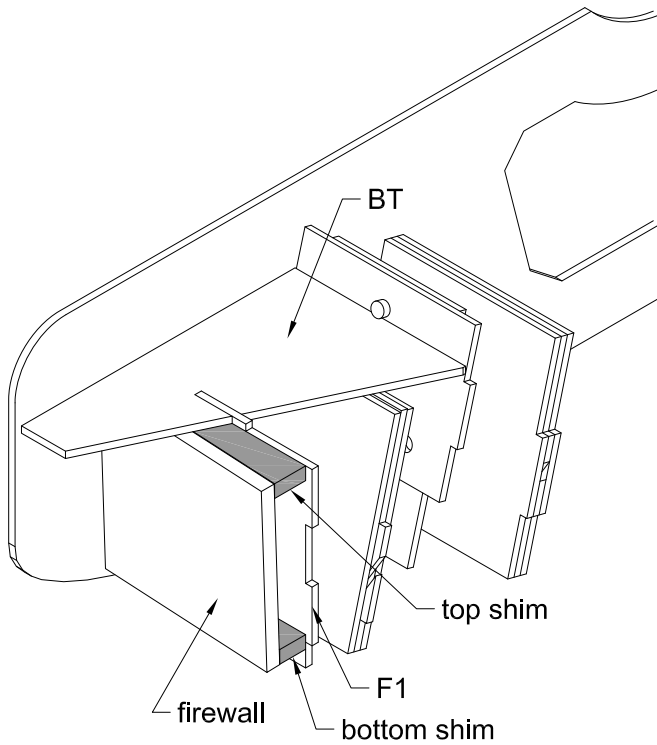
13. Fit the tabs in the 1/32" ply struts into the slots on the underside of the top wing. Tack glue the struts to the top wing at the tab locations. The struts will need to be angled in inward when the top wing is installed, so do not fully glue in place yet.



14. Trim covering away from the wing strut slots in the bottom wing. Fit top wing onto the carbon fiber cabane struts. Use the wing alignment jigs to set the proper incidence for the top wing. Fit the cabane struts into the holes in the top of the wing, trim/sand as necessary for a good fit. Glue top wing to cabane struts with epoxy or thick CA, remove alignment jig when epoxy or CA. Fit ply struts into the slots in the bottom wing and glue in place. Glue the rest of the ply strut to the underside of the top wing.



15. If you wish to use a small firewall mounted brushless outrunner motor, glue the top shim to F1 and BT and the bottom shim to F1. Glue the firewall (part ID must face the front of the plane) to the top and bottom shim and around its perimeter to the fuselage sides and BT.
- **IMPORTANT**** - the brushless motor mount is designed to have down and right thrust built into it.



Final assembly and flying

1. Secure receiver and ESC to removable Rx/ESC tray and install in the fuselage (DO NOT glue tray in place)
2. Use a little thin CA to glue LPS gearbox to CF motor mount. (if LPS system is used)
3. Install battery. Install servos so that the model balances on the front spar (TS1) of the top wing.
4. Set elevator throw to 1/4" up and down. Set rudder throw to 3/8" left and right.
5. Use light weight wheels, 1 1/8" - 1 1/4" in diameter.

