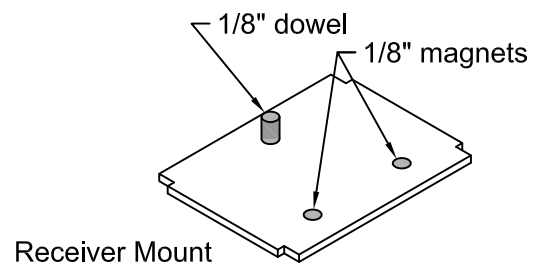
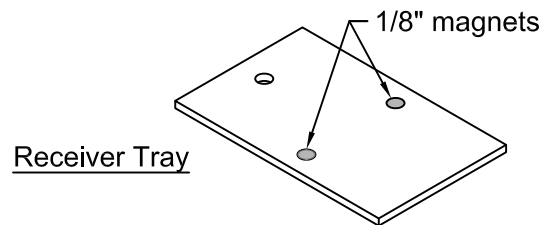
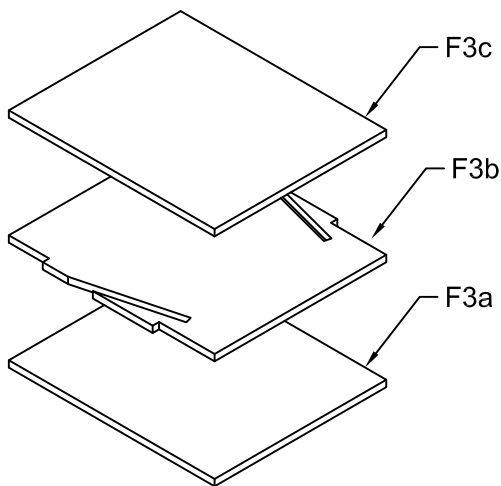
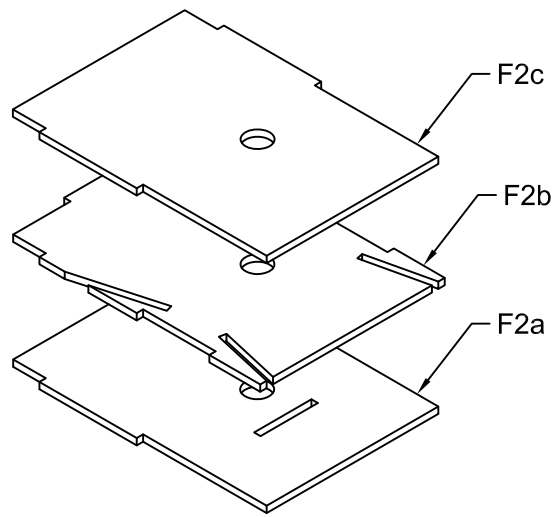
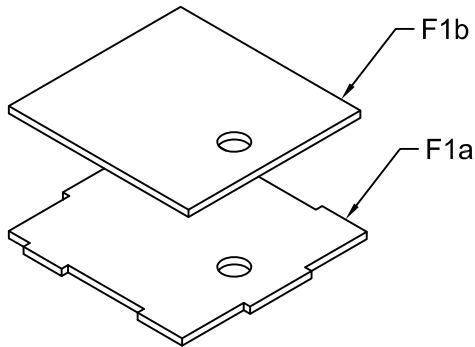
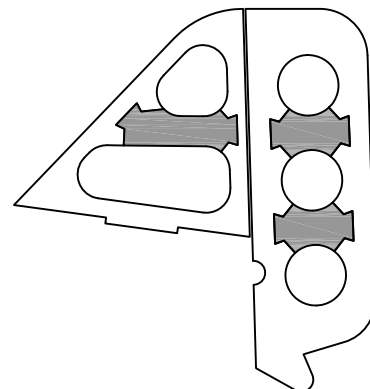
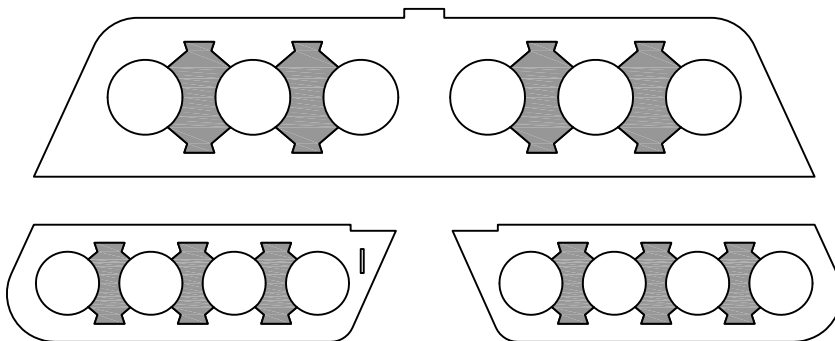


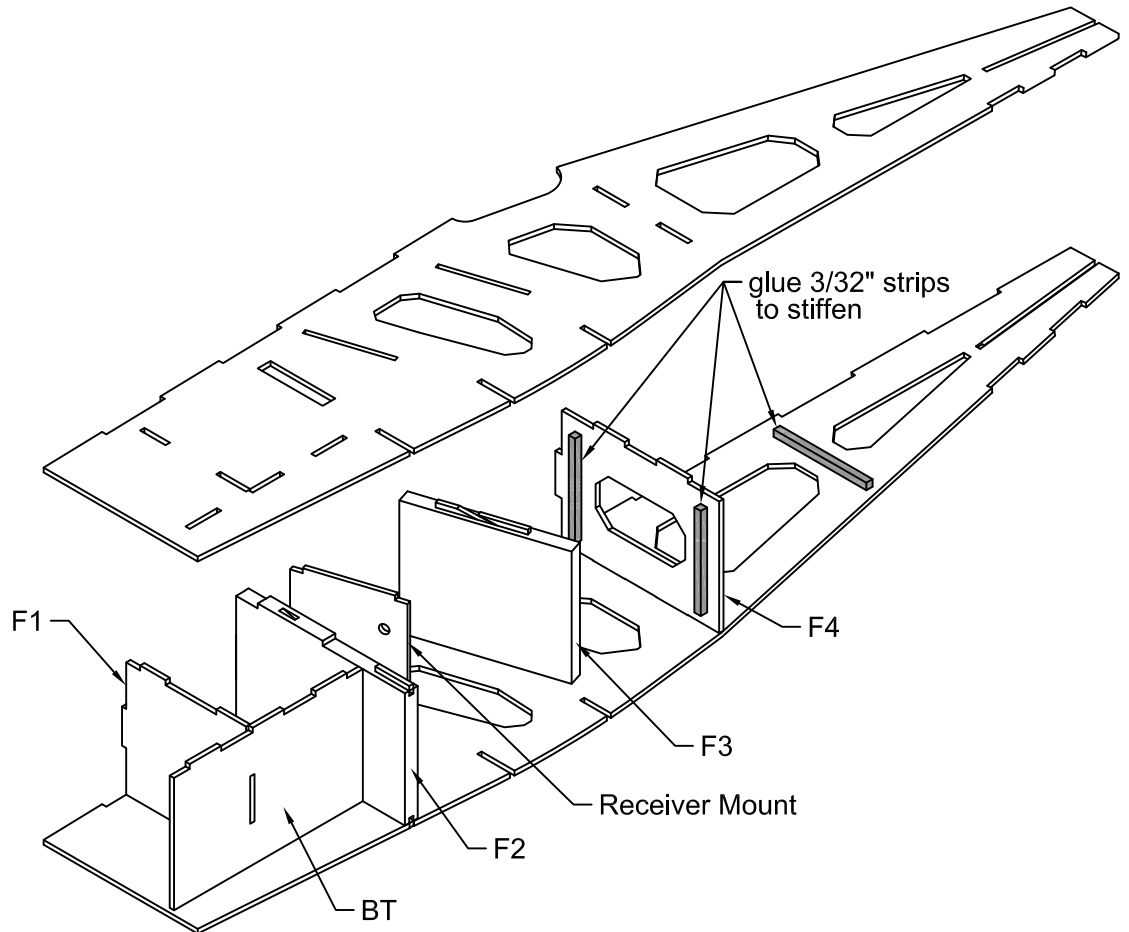
1. Laminate fuselage formers F1 - F3. Cut and glue 1/4" long piece of 1/8" diameter dowel into the Receiver Tray mount. Glue the included rare earth magnets into the Receiver Mount and the Receiver Tray using either epoxy or thick CA.  
**\*\*IMPORTANT\*\*** - When laminating F1 and F2 as shown below, the part numbers MUST be facing down!



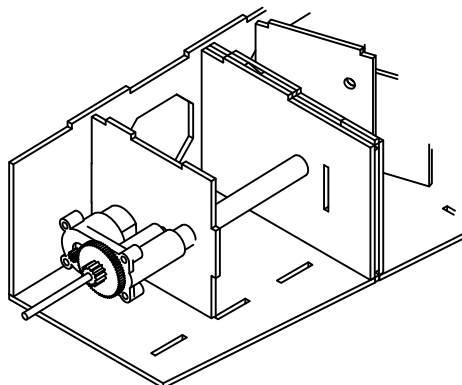
2. Glue the cross-grain reinforcement pieces into the horizontal and vertical stabilizers. The cross-grain pieces are located directly next to or contained within their respective parts.



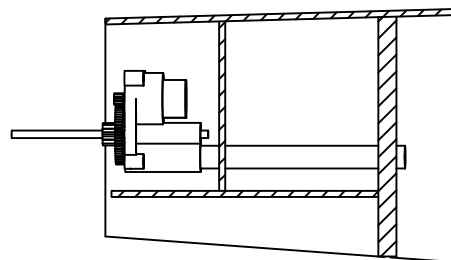
3. Fit formers F1-F4, Receiver Mount and BT onto one of the fuselage sides. Ensure that F1, F2 and BT are fully seated to the fuselage side and each other and then glue F1 and F2 to BT and then to the fuselage side. Fit opposite fuselage side in place and when satisfied with the fit, glue all formers to both 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 the LPS motor system, place motor onto the included carbon fiber mounting stick and slide into 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.

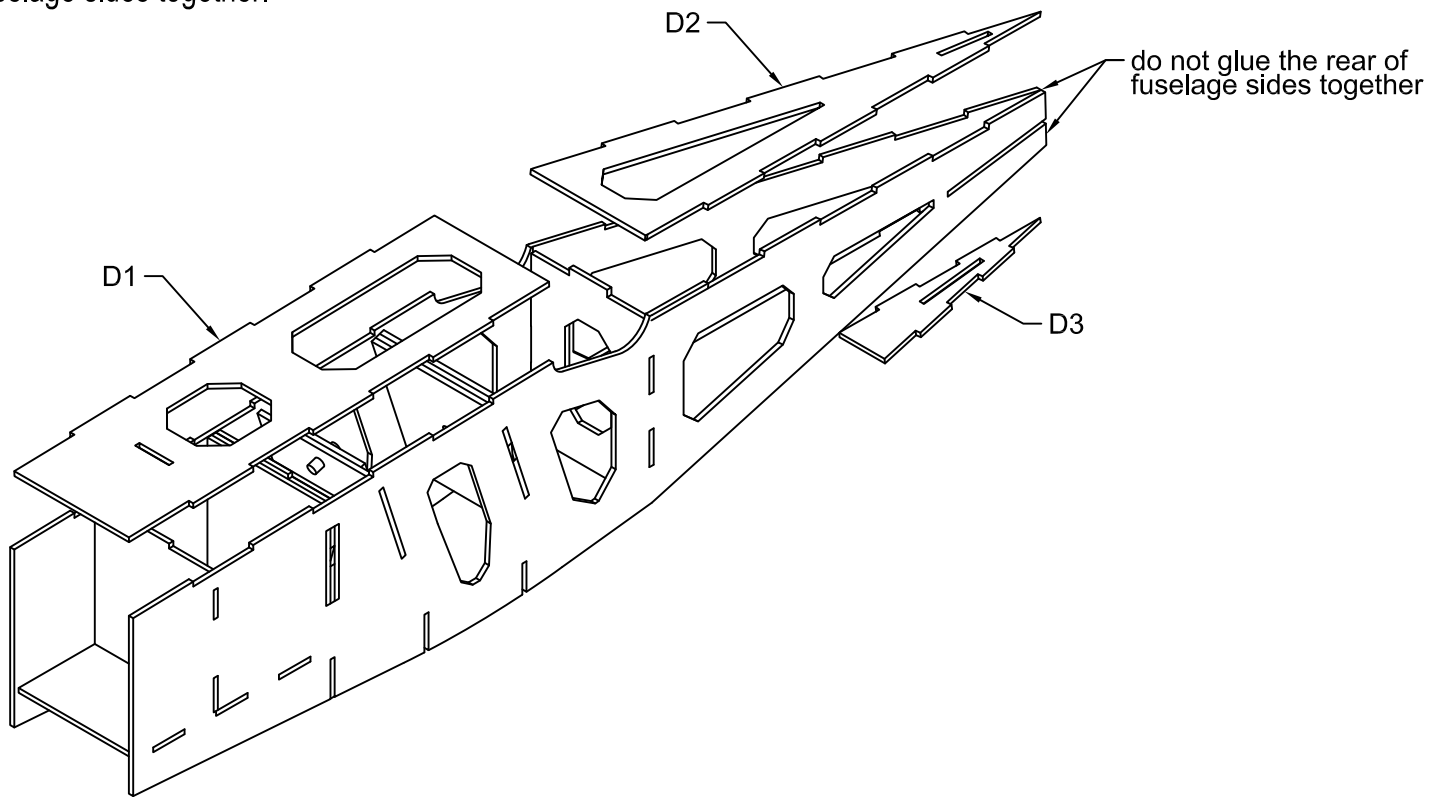


(Some parts omitted for clarity)

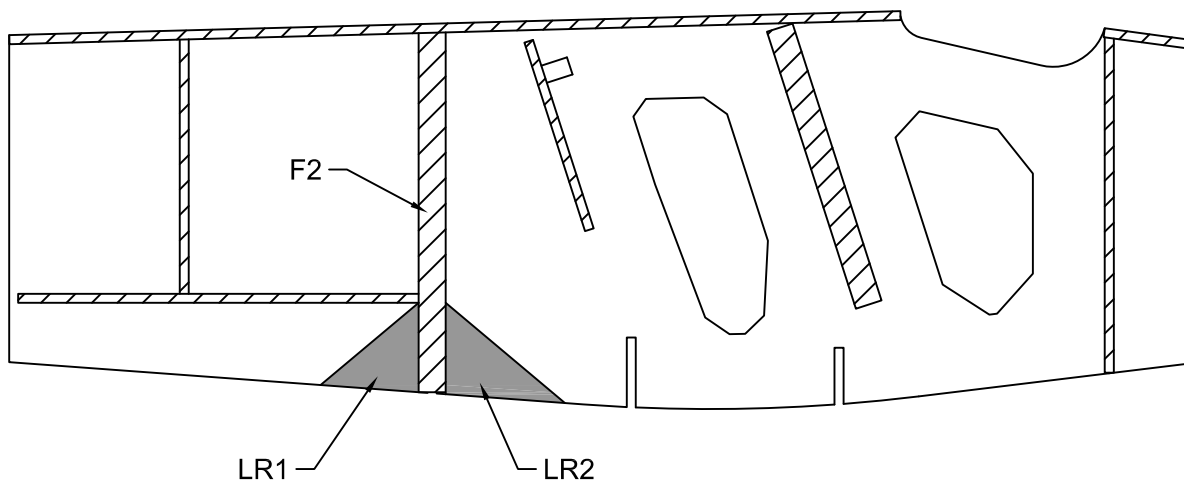


Side View

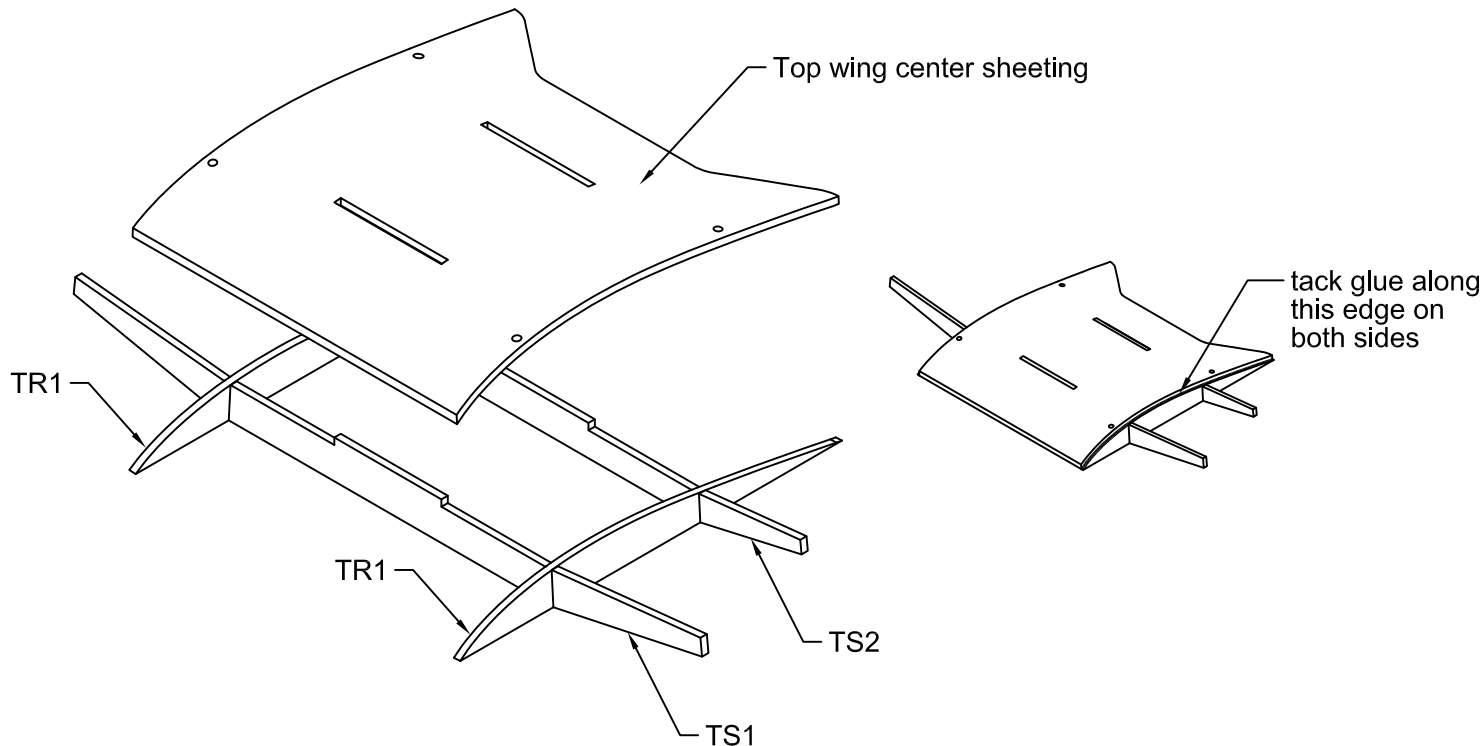
5. Fit and glue D1, D2 and D3 in place. Do Not glue the rear of fuselage sides together.



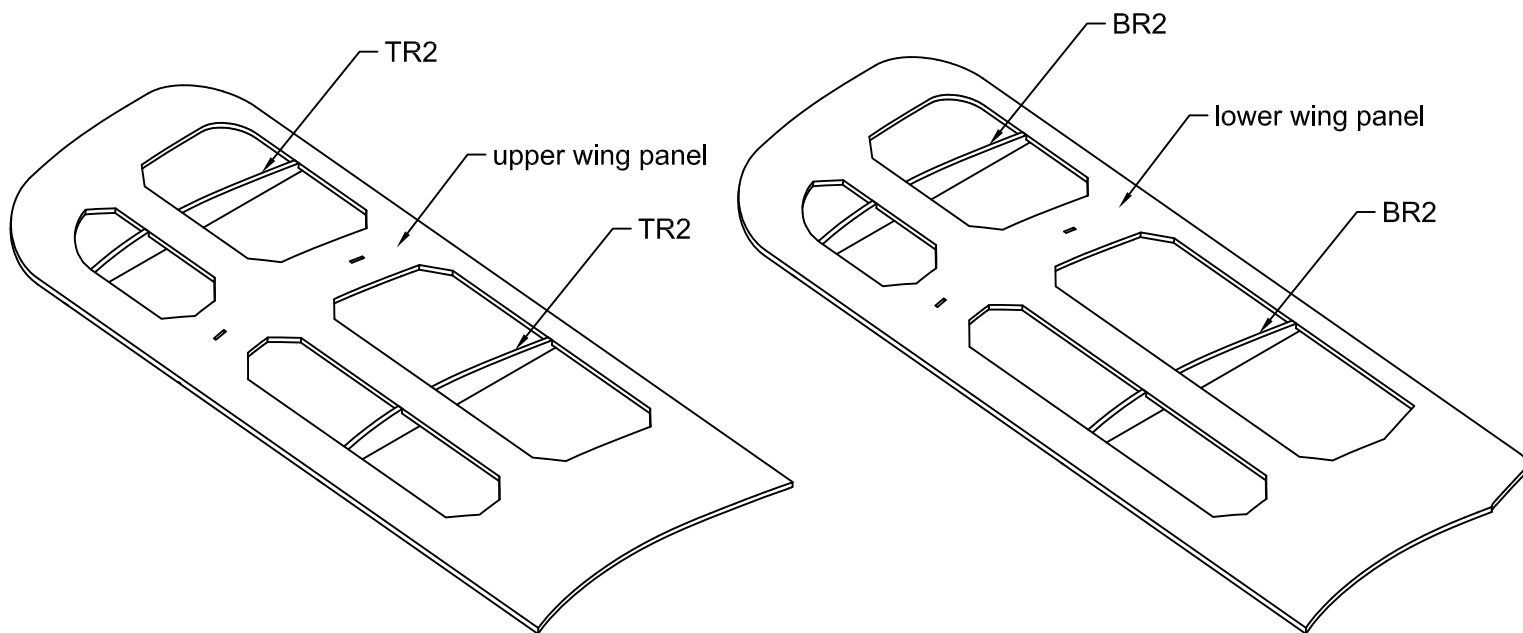
6. Glue landing gear reinforcements LR1 and LR2 in place on the inside of each of the fuselage sides

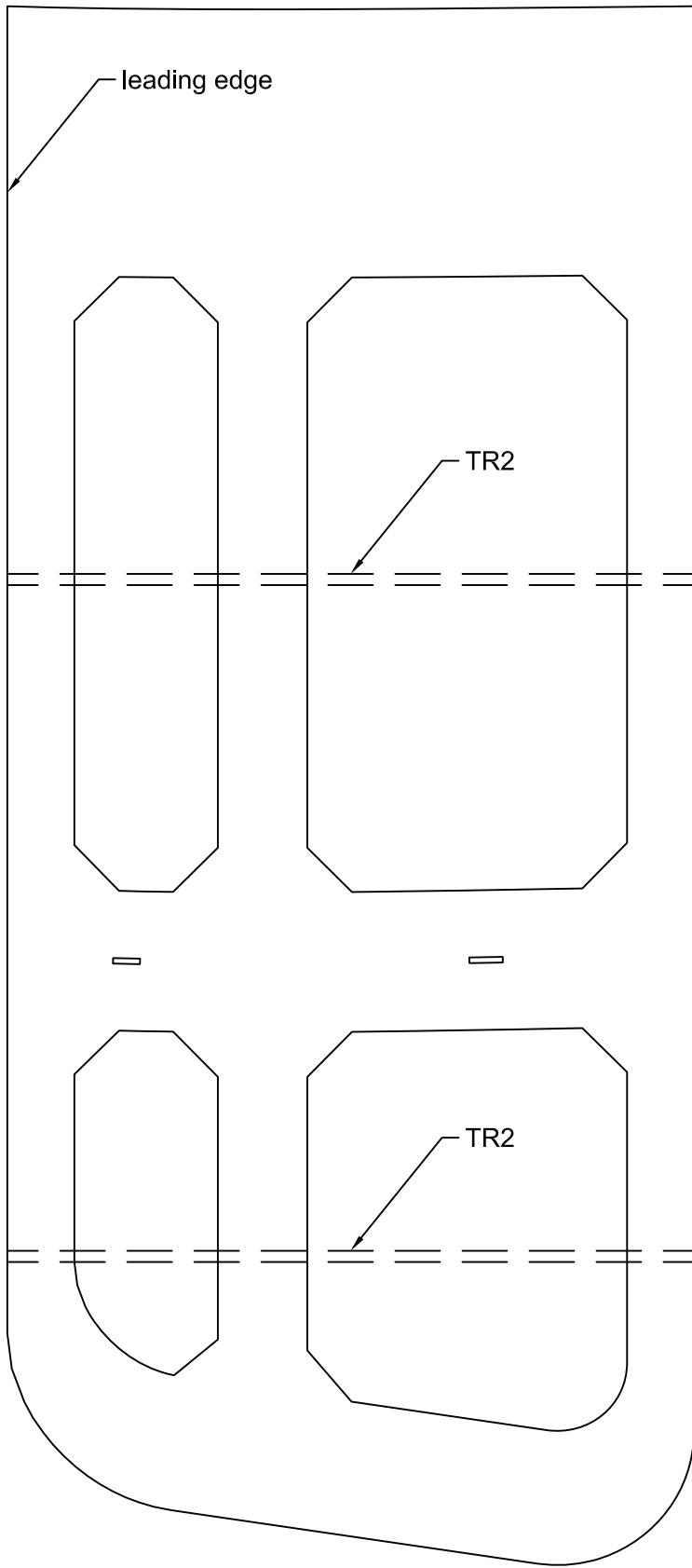


7. Carefully fit ribs TR1 into the slots in TS1 and TS2, do not glue yet. Fit the tabs in TS1 and TS2 into the slots into the top wing center sheeting. The sides of the sheeting should align with the center of the ribs. Keep the assembly on a flat surface and carefully tack glue the sheeting to the ribs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

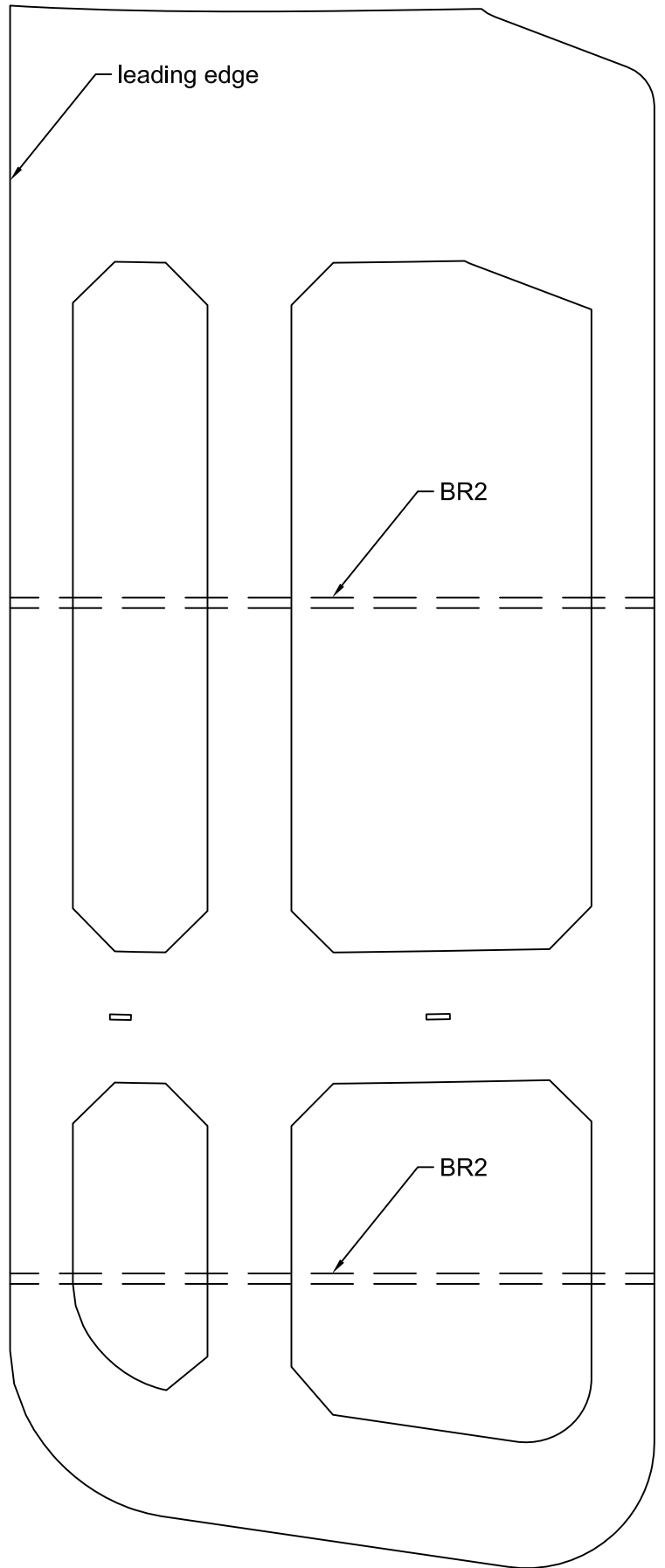


8. Glue the ribs TR2 to the upper wing panel and the ribs BR2 to the lower wing panel (refer to plan on following page). Make sure you build a left and right wing panel for the top and bottom wings!





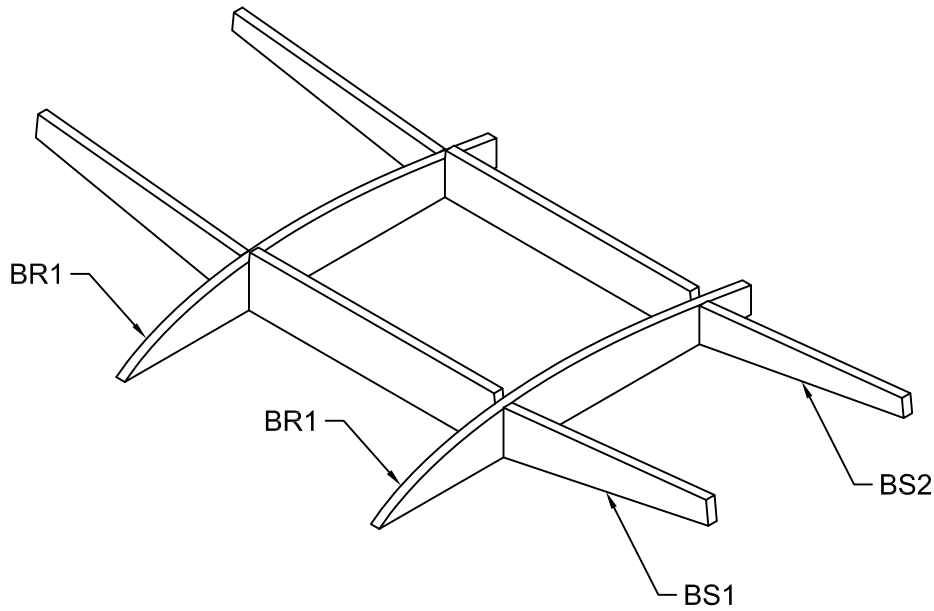
Upper Wing Rib plan



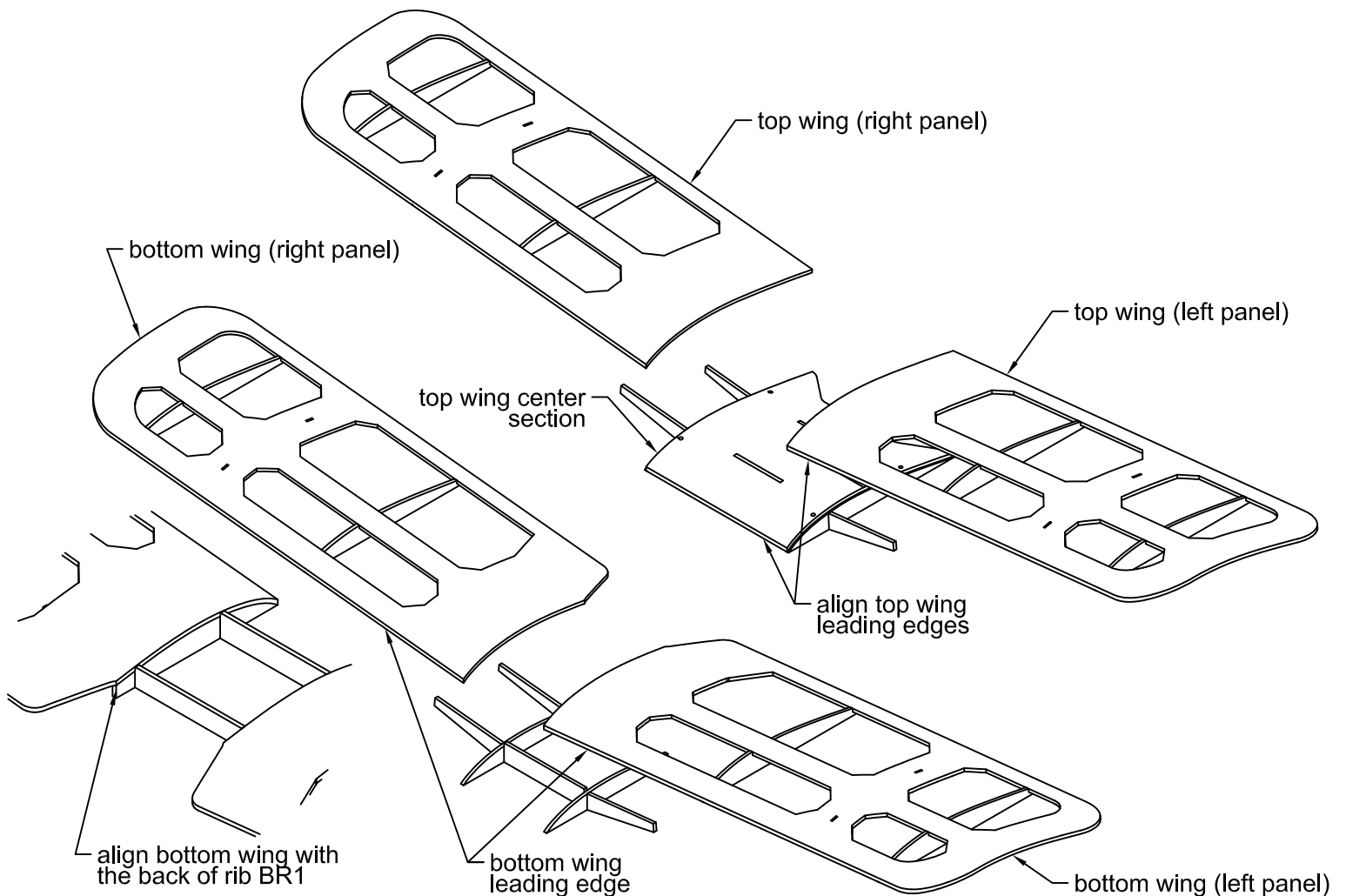
Lower Wing Rib plan

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

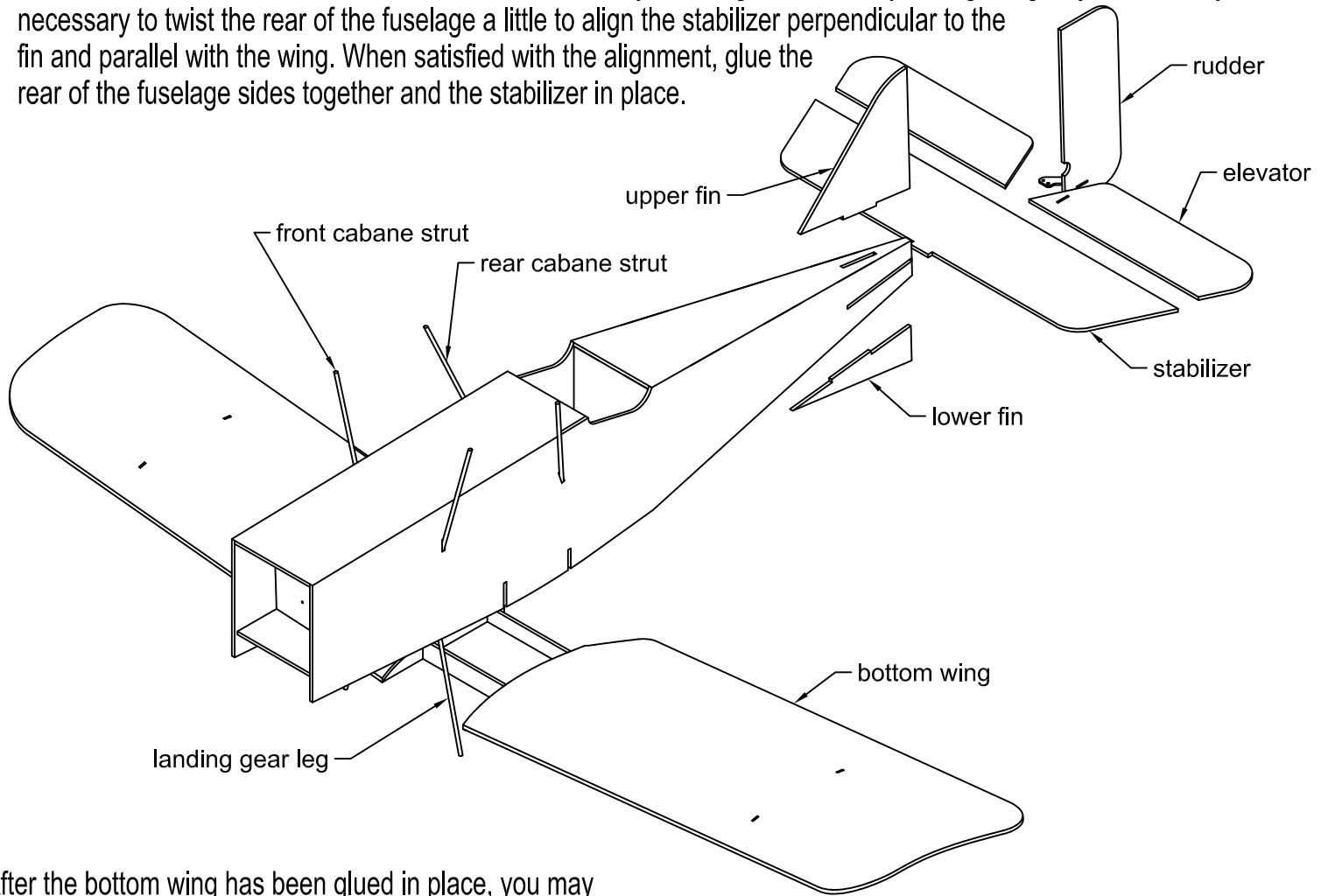
9. Carefully fit ribs BR1 into the slots in BS1 and BS2. Ensure that BR1 are square to BS1 & BS2 and glue together.



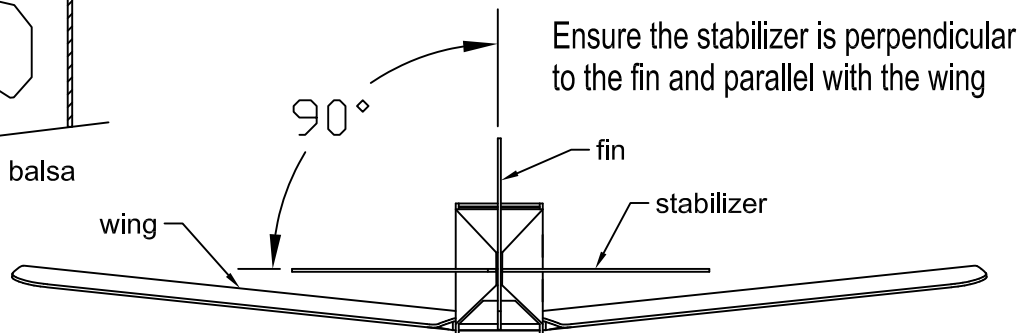
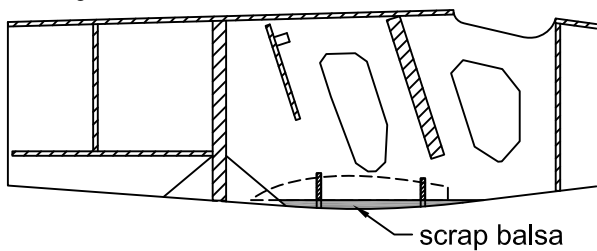
10. Assemble the top and bottom wing panels. Align the leading edge of the top wing panels with the leading edge of the top wing center section. When satisfied with the fit, glue wing panels to ribs TR1 and the wing spars. For the bottom wing, align the bottom wing panel with the back of rib BR1 and glue to BR1 and bottom wing spars.



11. It is a good idea to cover all parts before beginning final assembly. Cut front and rear cabane struts using the template on the following page. The cabane struts are about 1/16" (1.5mm) longer than necessary, you will trim them later when fitting the top wing in place. Fit the cabane struts into the pockets in F2 and F3. make sure they are fully seated - Do Not glue in place yet! Test fit top and bottom fins in place, trim away covering as necessary for a good glue joint. Ensure top and bottom fins are aligned vertically and glue in place. Trim covering from the slots in the fuselage side for the bottom wing spars. 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 side and glue in place. Trim covering from slot for the stabilizer. Test fit stabilizer and 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 perpendicular to the fin and parallel with the wing. When satisfied with the alignment, glue the rear of the fuselage sides together and the stabilizer in place.

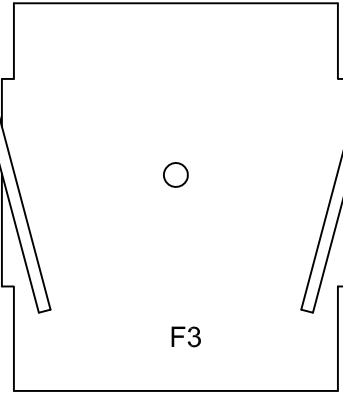
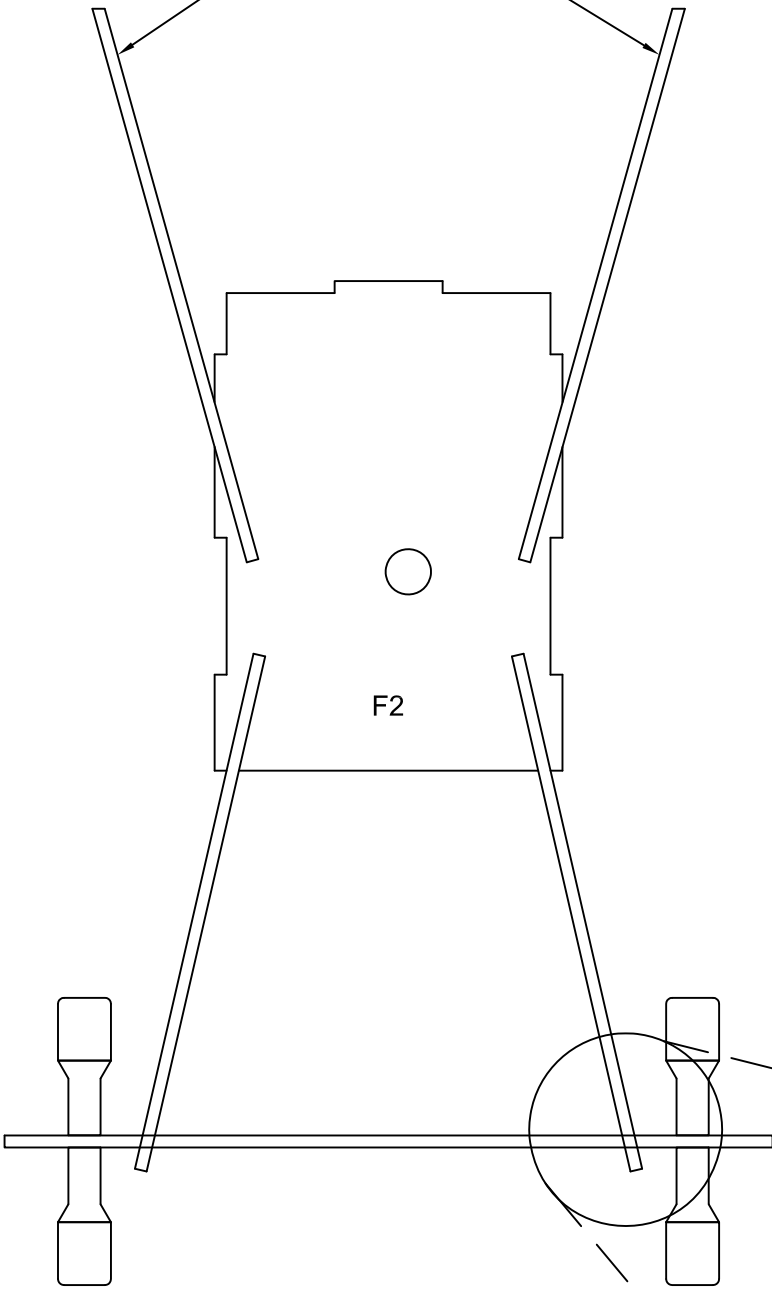


After the bottom wing has been glued in place, you may want to glue some scrap balsa on the inside of each fuselage side.

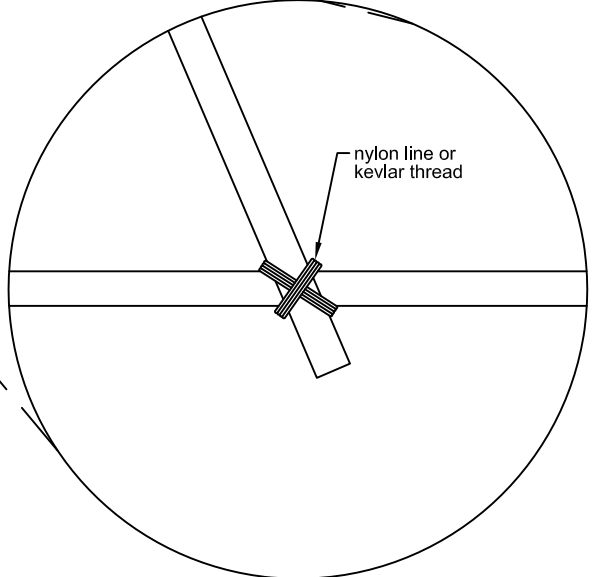


front cabane struts

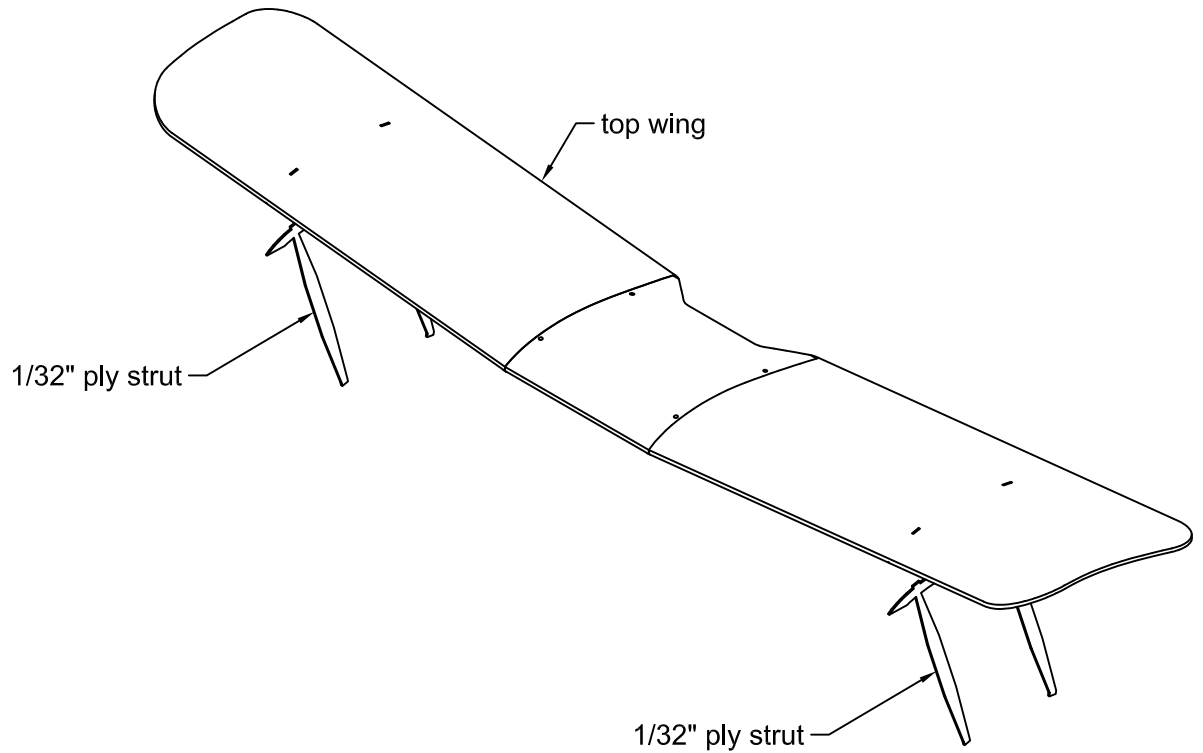
rear cabane struts



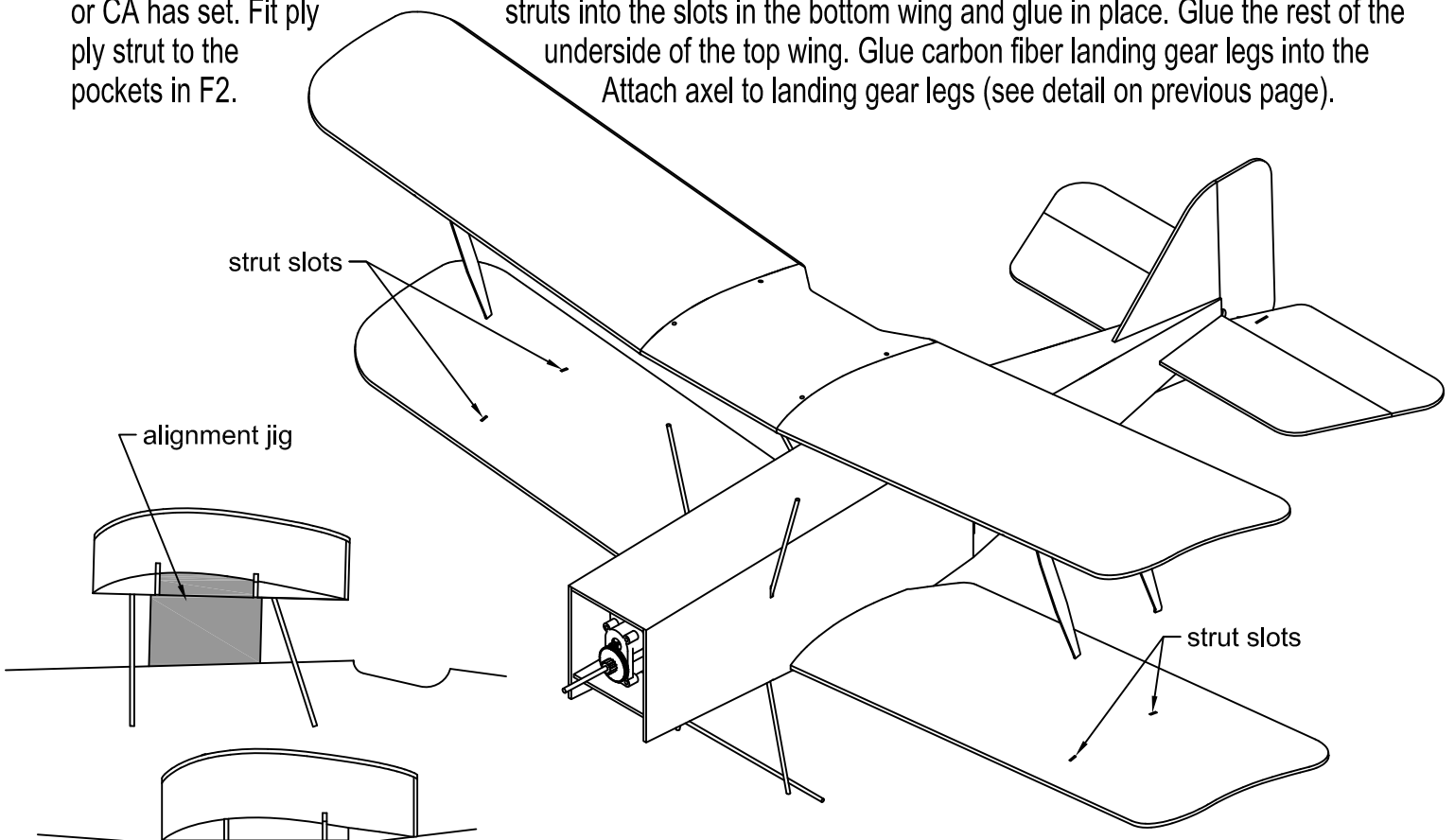
Secure axel to landing gear legs by wrapping with nylon line or kevlar thread and gluing with CA.



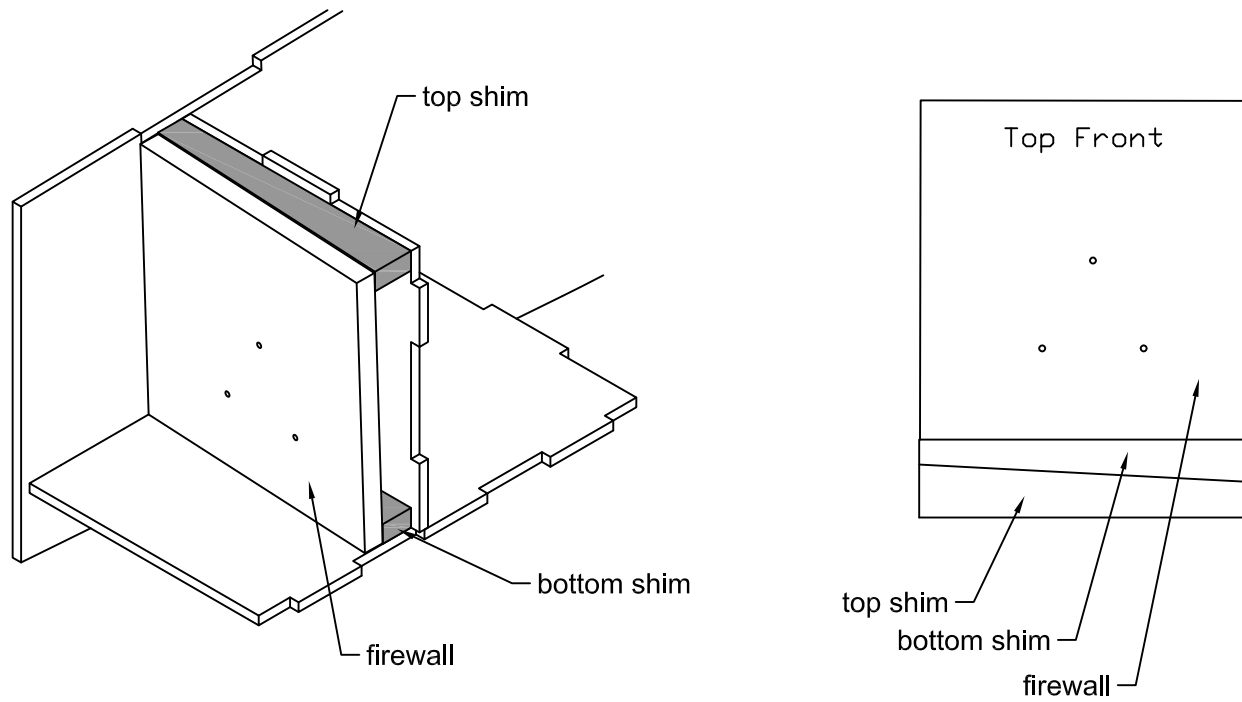
12. Fit the tabs in the 1/32" ply struts into the slots on the underside of the top wing. Tack glue the struts to the top wing at the tab locations. The struts will need to be angled in inward when the top wing is installed, so do not fully glue in place yet.



13. 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. Trim the cabane struts to fit flush with the top of the wing. Glue top wing to cabane struts with epoxy or thick CA, remove alignment jig when epoxy or CA or CA has set. 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. Glue carbon fiber landing gear legs into the pockets in F2. Attach axel to landing gear legs (see detail on previous page).



14. If you wish to use a small firewall mounted brushless outrunner motor, glue the top shim to F1 and D1 and the bottom shim to F1 and BT. 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, D1 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 and servos. Install servos so that the model balances on the leading edge of the lower 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.

