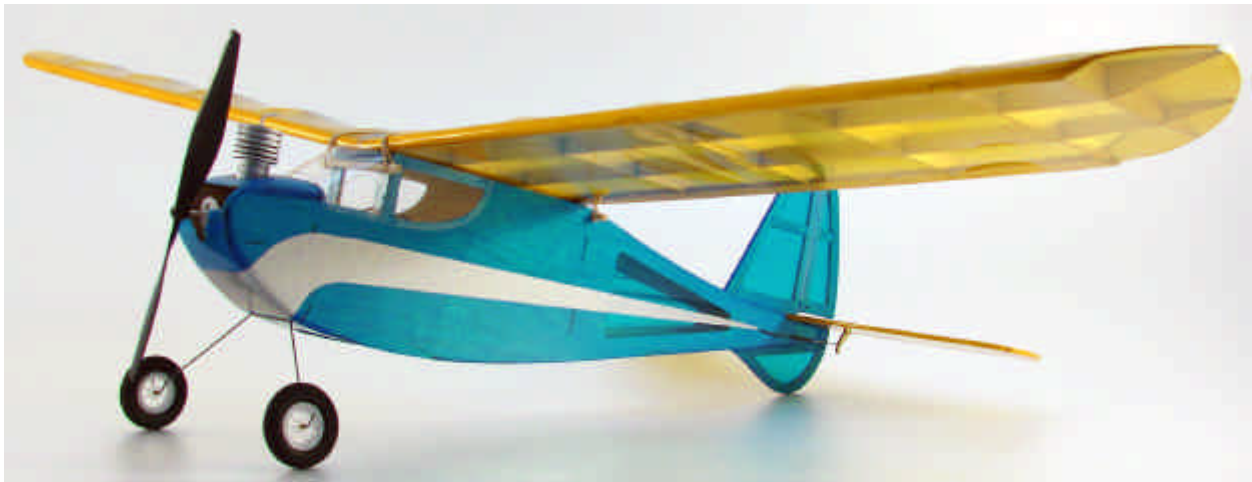




# Tom-E-Boy™ Micro

Micro Nostalgic R/C Electric Airplane



## Tom-E-Boy™ Specifications

**Wingspan:** 23.7 in.

**Length:** 18.4 in.

**Wing Area:** 100 sq. in.

**Weight (Ready to Fly):** 1.8 oz.

**Wing Loading:** 2.6 oz. / sq. ft.

Version 1.0, March 5, 2012

## WARRANTY

Mountain Models guarantees this kit to be free from any defects in both material and workmanship at the time of purchase. This warranty does not cover ANY components or parts damaged by use or modification. In no case shall Mountain Model's liability exceed the original cost of the purchased kit. Mountain Models reserves the right to modify or change this warranty without notice.

## LIABILITY RELEASE

In that Mountain Models has no control over the final assembly or material used for final assembly, no liability shall be assumed or accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return the kit immediately in new and unused condition.

**THIS PRODUCT IS NOT INTENDED FOR CHILDREN 12 YEARS OF AGE OR YOUNGER.**

**WARNING:** This product may contain chemicals known to the State of California to cause cancer and or birth defects or other reproductive harm.

## PRODUCT SUPPORT

This product has been designed to function properly and perform as advertised with the SUGGESTED power system, speed control, and servos, as described in advertisements and in this manual. We do NOT support, nor can Mountain Models assist in determining the suitability or use with any other electronics or hardware not recommended by Mountain Models.

For the proper electronics to complete this model, replacement parts, and product assembly questions, please contact Mountain Models online at [www.MountainModels.com](http://www.MountainModels.com)

Thank you for purchasing the Mountain Models Tom-E-Boy™ Micro. The Tom-E-Boy™ Micro is a micro model designed with influence from the famous Vic Smeed Tomboy, to bring back that nostalgic feeling of yesteryear, in an indoor electric package. The 23.7 inch Tom-E-Boy™ Micro is a super easy to build and easy enough for a beginner to learn how to fly, with some friendly help.

The Tom-E-Boy™ was designed using a state of the art 3D CAD package, to allow for exceptional interlocking parts design and fit. 3D design also allows us to provide clearer assembly images, without having to use photos.

The Tom-E-Boy™ is built from self-jigging interlocking laser cut balsa and plywood parts. It's like a 3D jigsaw puzzle with instructions. Although not needed for building, full size plans are included for reference. If the instructions are read before hand and followed during the build, the Tom-E-Boy™ can be built up and ready to fly in only a few evenings.

We think you'll like the Tom-E-Boy™ and look forward to any feedback you might have.

Thank you,  
Brian Eberwein

**Mountain Models**  
2935 N Lynndale Drive  
Appleton, WI 54914  
[www.mountainmodels.com](http://www.mountainmodels.com)

Phone: 920.840.6036

## Before You Begin

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Check to make sure that all of your parts are there and in good shape.

### Parts List

Number in Kit	Description of Part
<b>Bundled Parts</b>	
1	Laser Cut Parts Sheets (6 Sheets)
2	Plan Sheets (11" x 17")
1	These instructions of course!
<b>Metal (on the back of the wood bundle)</b>	
2	0.020" x 12" Wire
1	1/32" x 12" landing gear wire
<b>Bagged Parts</b>	
3	Wheels
1	1/16" Aluminum Tube
1	1/16" x 1" Shrink Tube
2	1/8" x 2" Dowel
6	#16 Rubber Bands

### Building Materials and Tools You Will Need

- Smooth and FLAT work surface
- Wax paper or clear plastic wrap to protect the work surface
- Thin Cyanoacrylate (CA) glue
- Hobby knife with #11 blades
- Needle nose pliers
- Wire cutters
- Sanding block, 320 to 400 grit sandpaper
- Covering Iron

### Finishing Materials You Will Need

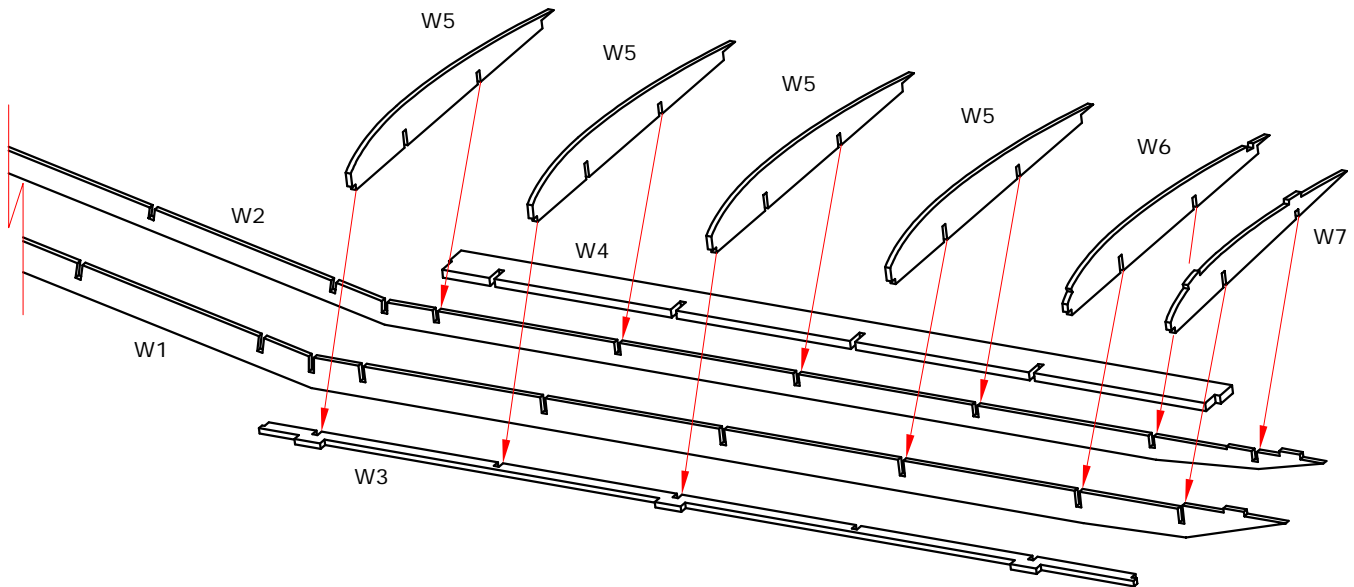
- SoLite Covering (Do NOT use heavier covering!!!!!!!!!!!!!!)  
(You can use a light weight tissue covering instead of SoLite)
- Double-Sided Foam Tape
- Hinge Tape (DuBro or Similar)
- Velcro to Mount Battery

### Electronics You Will Need

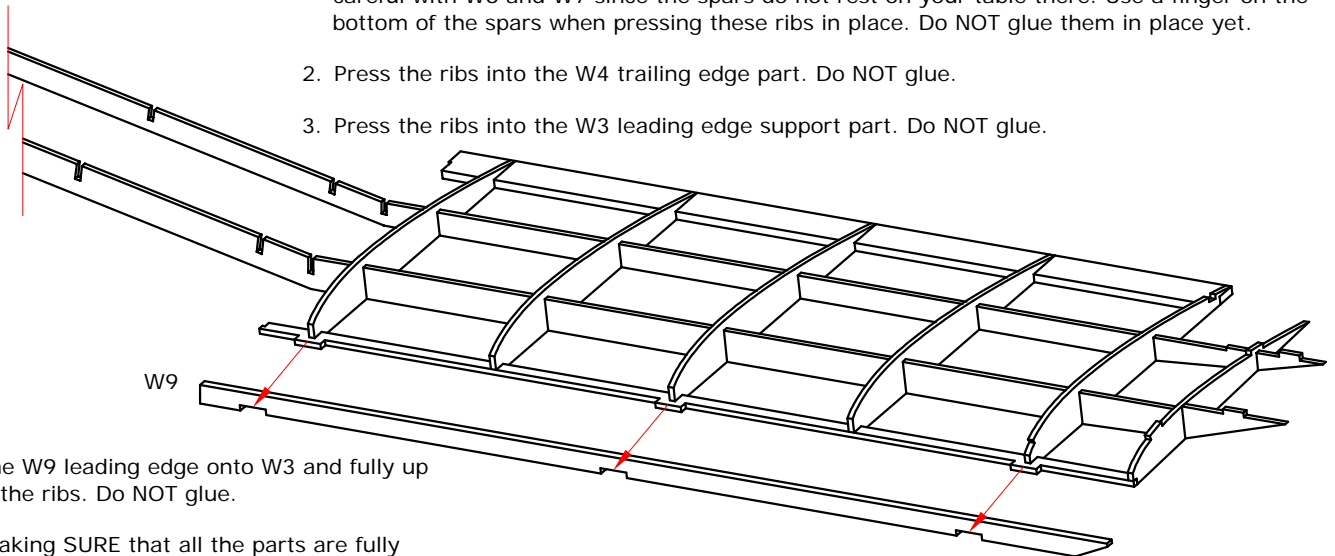
- Power: ParkZone Motor/Gearbox (PKZ3624) for UM P-51/Sukhoi
- Prop: EFL9051 Ultra Micro 130mm x 70mm
- RX/ESC/Servo: ParkZone 'Vapor' PKZ3351 or Spektrum AR6400
- 1S-130 mAh LiPo

## General Building Tips

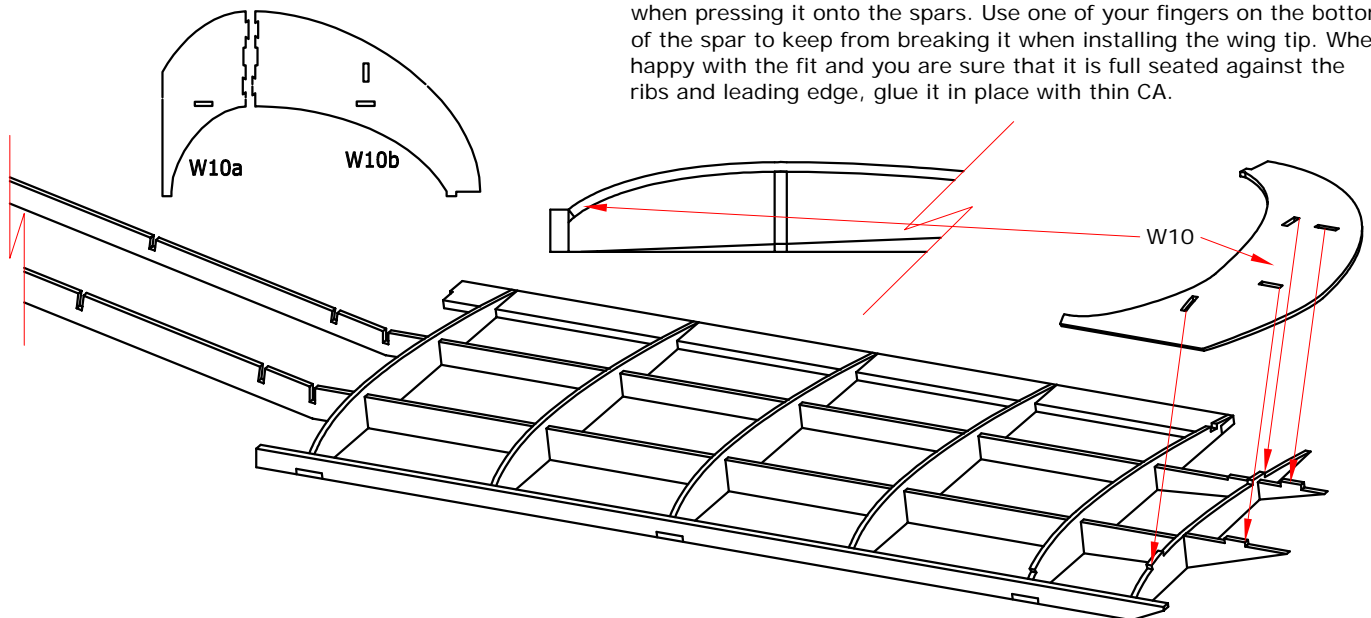
- **READ THE INSTRUCTIONS** all the way through and study the plans **BEFORE** starting any work on the model.
- **PRE-SANDING: BEFORE** removing any parts from the balsa sheets, use a sanding block with 320 grit sandpaper and lightly sand the back of the balsa sheets. Our balsa suppliers have been sending us wood that is over sized, so sanding the backs of the balsa sheets reduces the thickness just slightly and removes any charring from the laser cutting process.
- Tape the plans to your nice clean work surface and cover it with wax paper or plastic wrap. You want to keep your work surface clean and not glue the parts to the plans, right?
- Balsa is a lightweight and fragile wood, so you do need to be careful with it; however, you will also need to use a little bit of force to make everything fit properly, so don't be too timid.
- Do not remove any pieces from the balsa sheets until they're ready to be used. That way, parts won't get mixed up or disappear.
- Do NOT glue anything until told to do so.
- Join all of your pieces using thin CA (Cyanoacrylate) glue, unless we tell you otherwise. In general, only a small amount of CA is necessary to glue parts together.
- Don't over force your pieces together. If they aren't fitting together properly, make sure you have the right pieces and that they are oriented correctly. If needed, you can lightly sand the part to fit after making sure it is the correct part and oriented correctly. On balsa "tabs", you can "pinch" the wood with your fingers to get them to fit in slots. (The tabs might be tighter some times, due to tolerances in wood thickness)
- If you want to remove the charred edges caused by the laser cutting process, lightly dampen a cloth with bleach and gently rub the affected areas. Removing the char will not increase the strength but will make it look better. It also keeps that dark edge from showing under the lightweight coverings. You can also remove it by LIGHTLY sanding with 400 grit sandpaper.

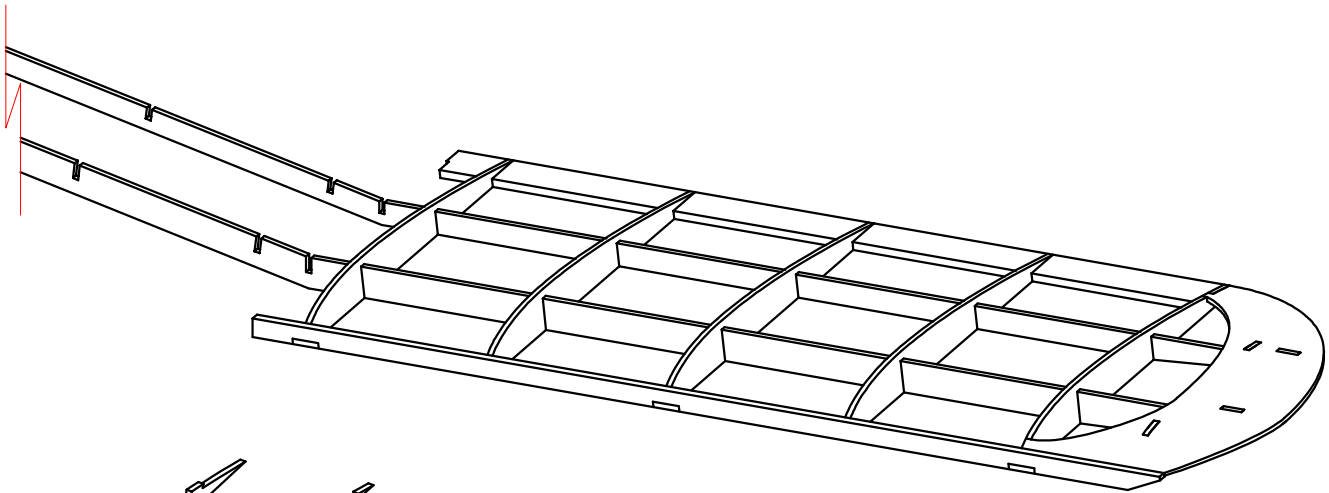


1. Slide the 4 ea. W5 ribs, W6 rib, and W7 rib onto the LEFT side of the spars, W1 and W2. Be careful with W6 and W7 since the spars do not rest on your table there. Use a finger on the bottom of the spars when pressing these ribs in place. Do NOT glue them in place yet.
2. Press the ribs into the W4 trailing edge part. Do NOT glue.
3. Press the ribs into the W3 leading edge support part. Do NOT glue.

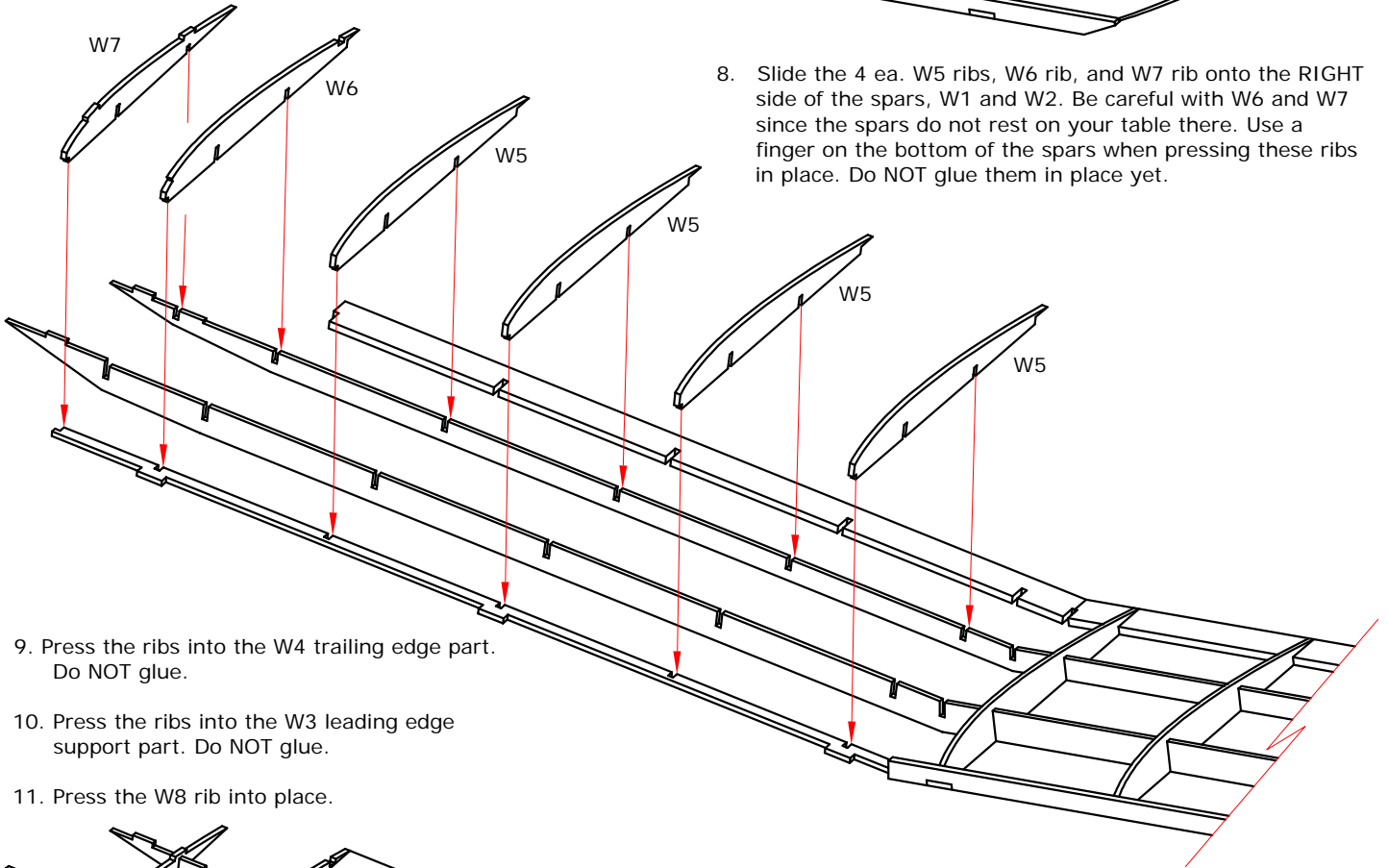


4. Press the W9 leading edge onto W3 and fully up against the ribs. Do NOT glue.
5. After making SURE that all the parts are fully seated against each other and aligned with the plans, and holding the parts down FLAT (small weights are great for this), secure all the joints with thin CA.
6. Press the wing tip W10a/W10b parts together and glue with thin CA. Do this to make 2 wing tips.
7. Press one W10 part into place on the left side of the wing. Be careful when pressing it onto the spars. Use one of your fingers on the bottom of the spar to keep from breaking it when installing the wing tip. When happy with the fit and you are sure that it is full seated against the ribs and leading edge, glue it in place with thin CA.





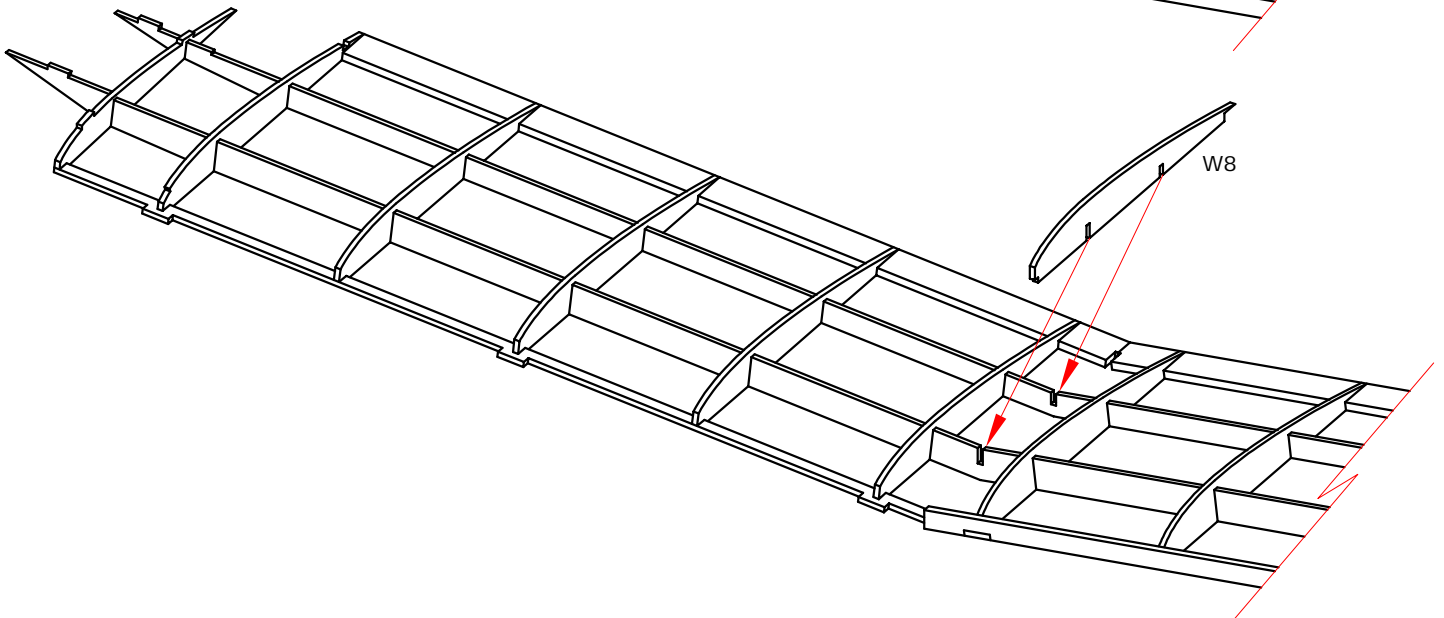
8. Slide the 4 ea. W5 ribs, W6 rib, and W7 rib onto the RIGHT side of the spars, W1 and W2. Be careful with W6 and W7 since the spars do not rest on your table there. Use a finger on the bottom of the spars when pressing these ribs in place. Do NOT glue them in place yet.



9. Press the ribs into the W4 trailing edge part. Do NOT glue.

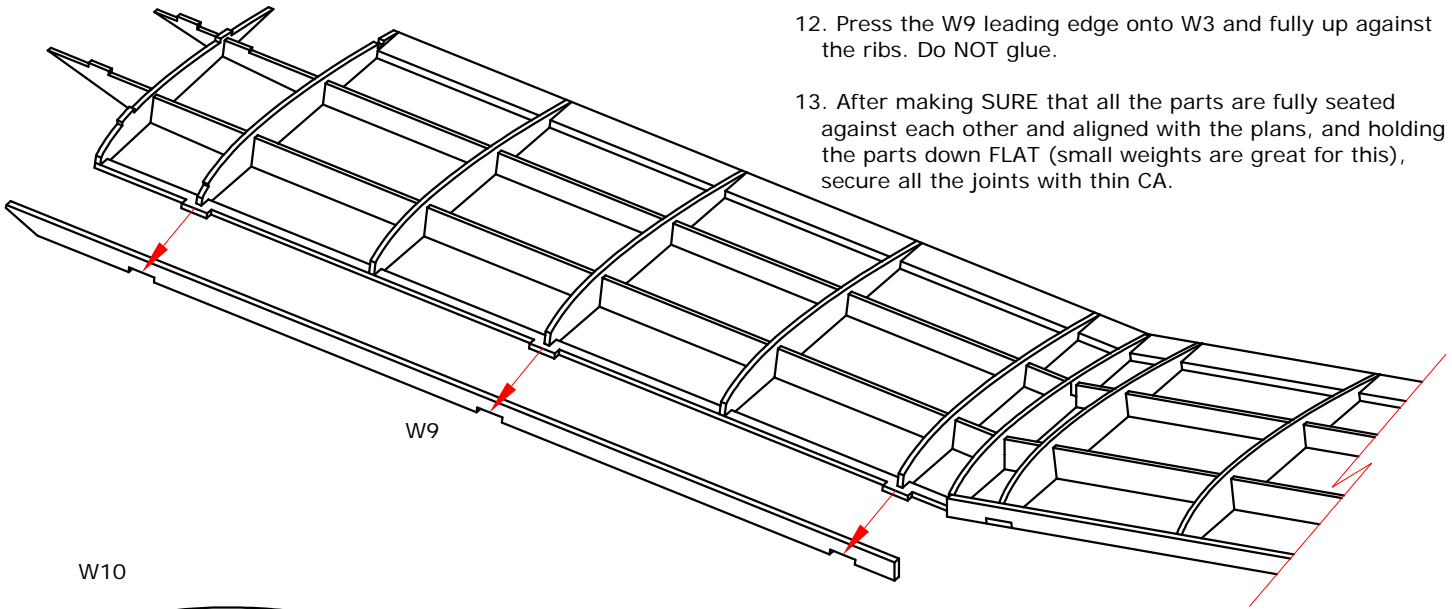
10. Press the ribs into the W3 leading edge support part. Do NOT glue.

11. Press the W8 rib into place.



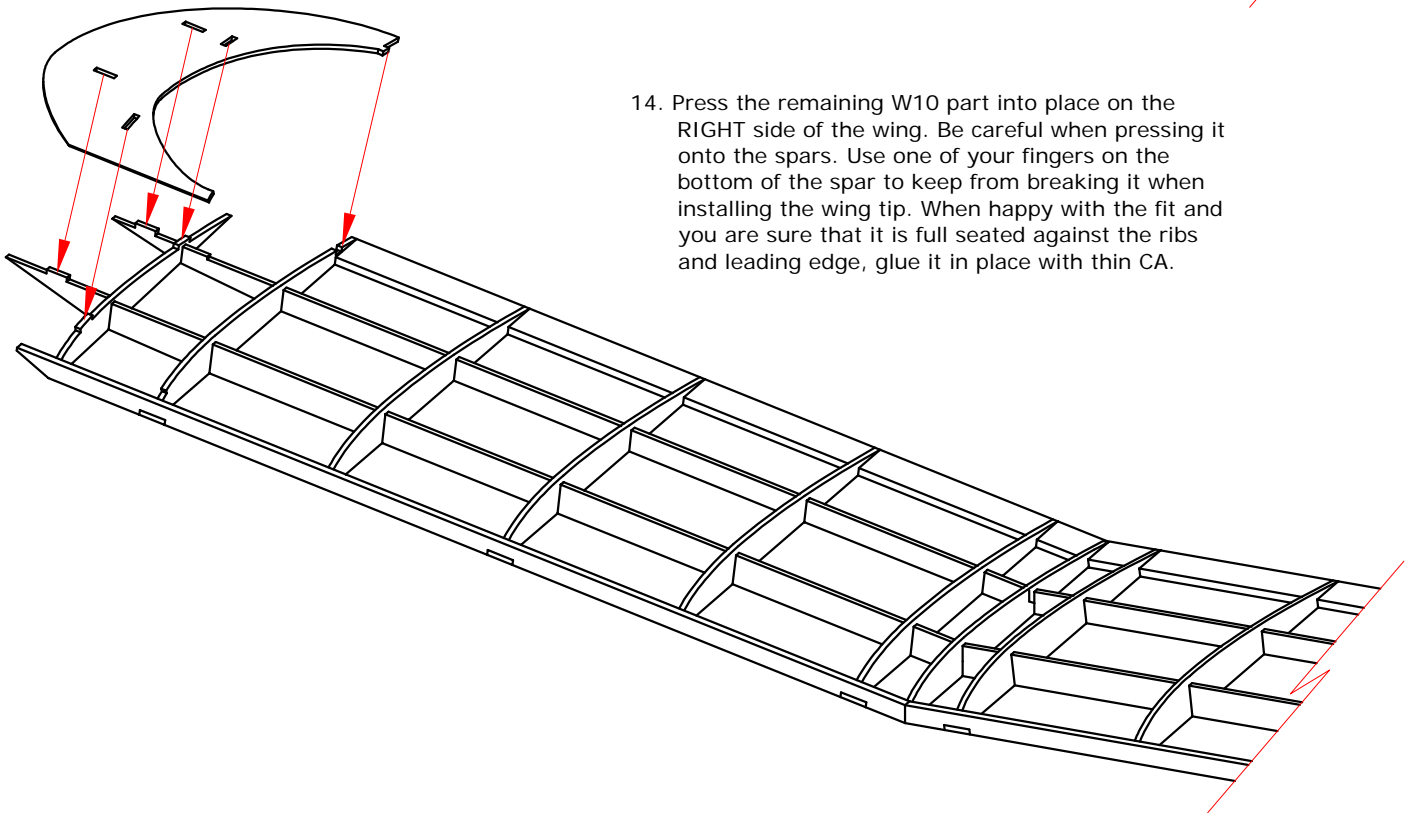
12. Press the W9 leading edge onto W3 and fully up against the ribs. Do NOT glue.

13. After making SURE that all the parts are fully seated against each other and aligned with the plans, and holding the parts down FLAT (small weights are great for this), secure all the joints with thin CA.

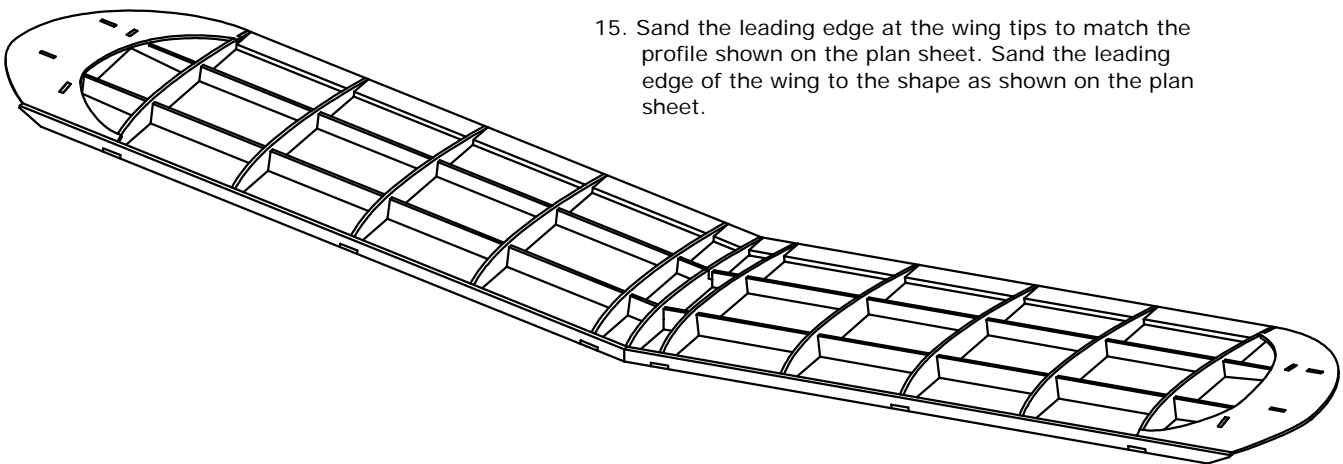


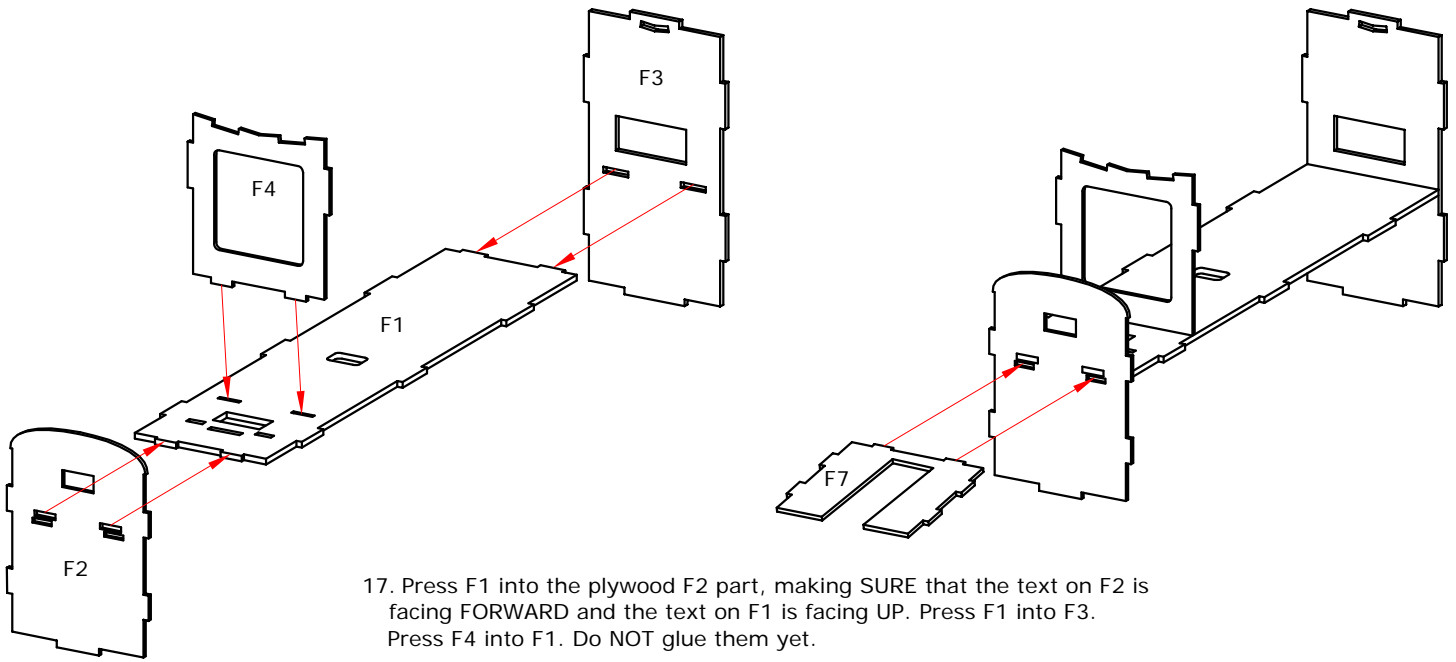
W10

14. Press the remaining W10 part into place on the RIGHT side of the wing. Be careful when pressing it onto the spars. Use one of your fingers on the bottom of the spar to keep from breaking it when installing the wing tip. When happy with the fit and you are sure that it is full seated against the ribs and leading edge, glue it in place with thin CA.



15. Sand the leading edge at the wing tips to match the profile shown on the plan sheet. Sand the leading edge of the wing to the shape as shown on the plan sheet.



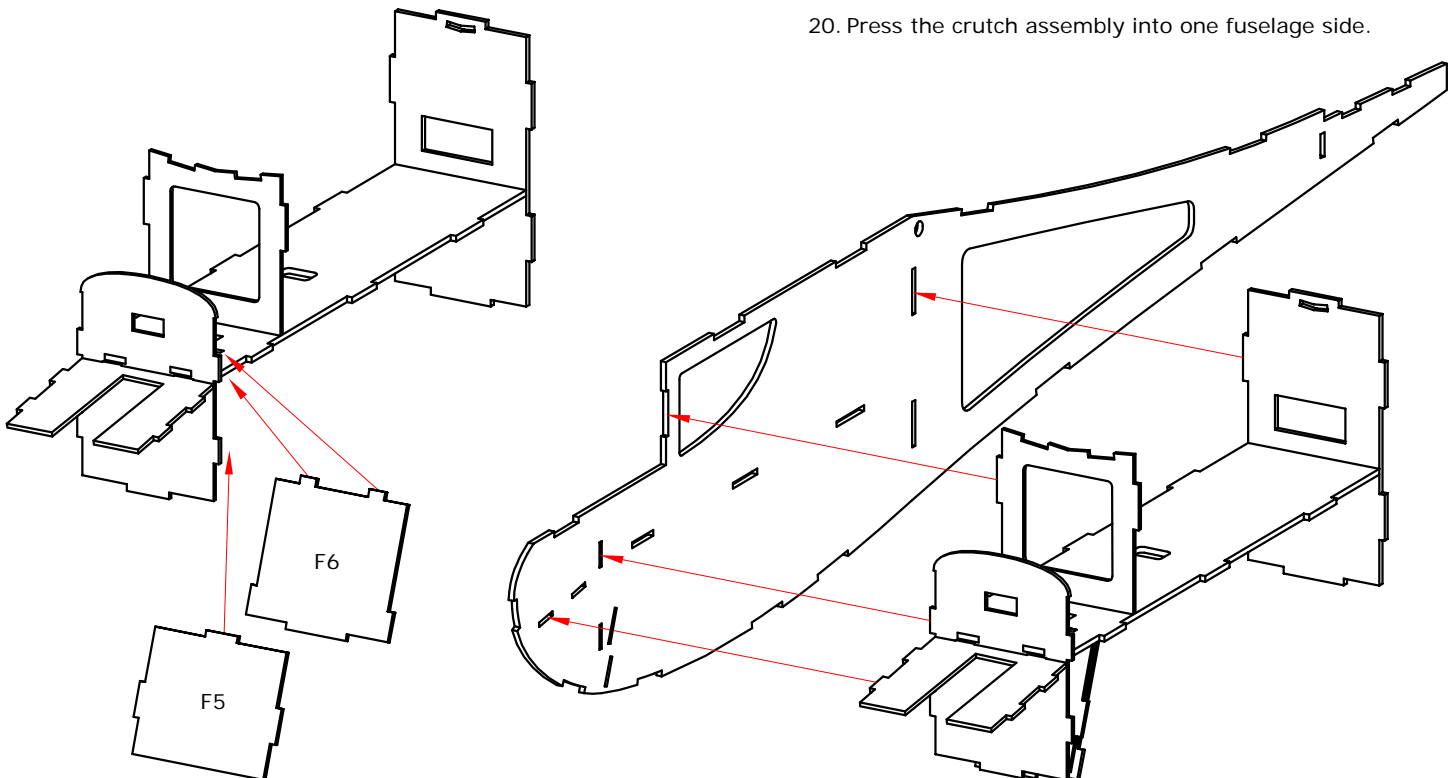


17. Press F1 into the plywood F2 part, making SURE that the text on F2 is facing FORWARD and the text on F1 is facing UP. Press F1 into F3. Press F4 into F1. Do NOT glue them yet.

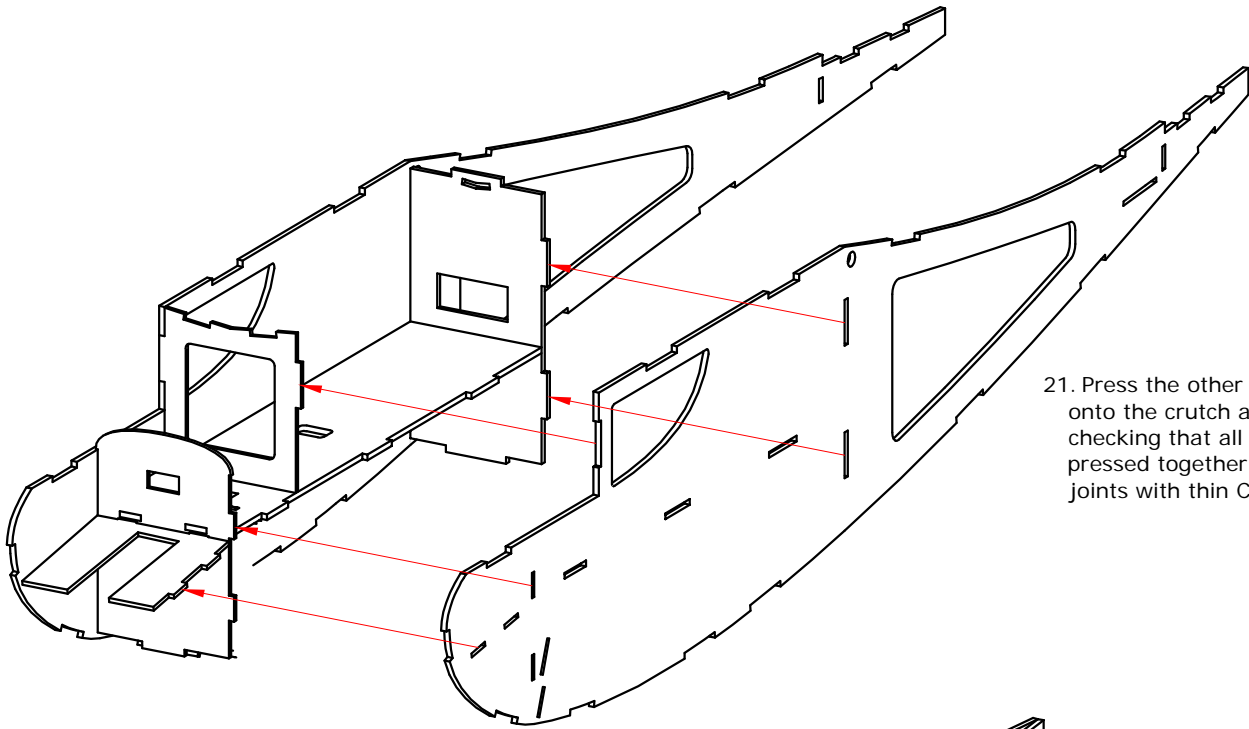
18. Press the plywood F7 into F2. MAKE SURE that the text on F7 is facing UP. If the text on F7 is NOT facing up, your model is not going to fly properly!

19. Press plywood F5 and F6 into the F1 crutch. Do NOT glue them yet.

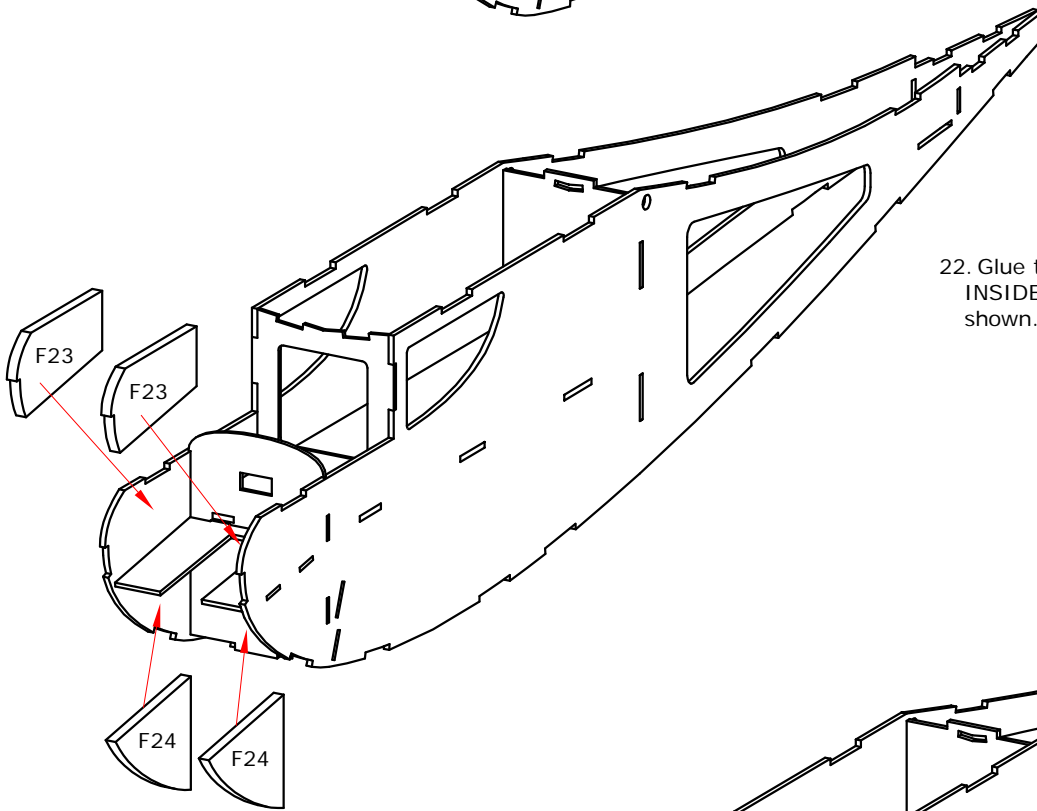
20. Press the crutch assembly into one fuselage side.



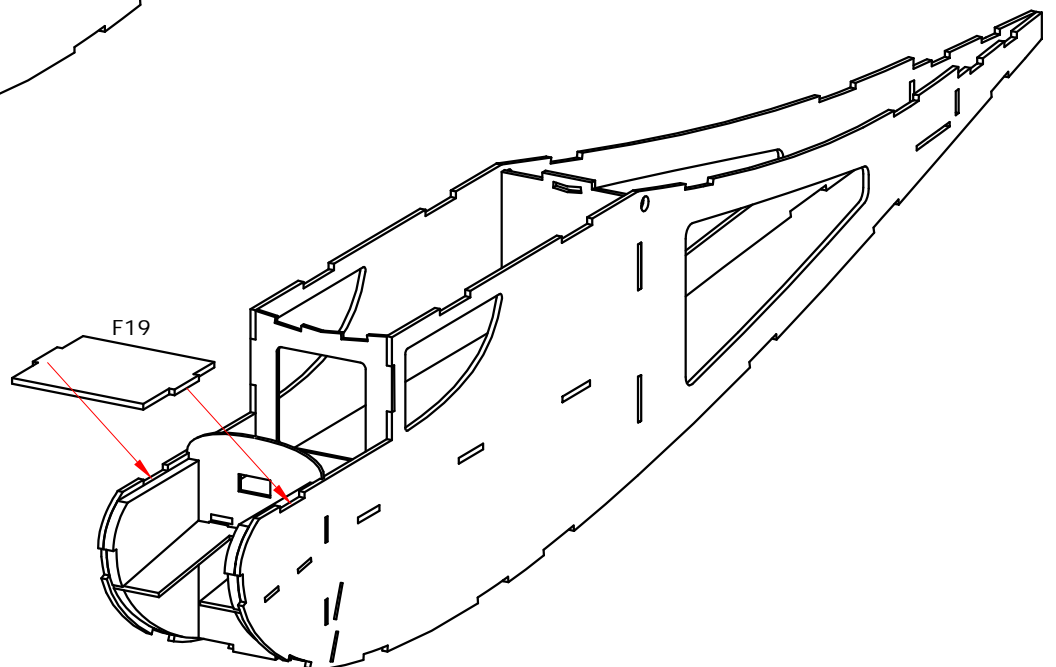




21. Press the other fuselage side onto the crutch assembly. After checking that all parts are fully pressed together, lightly tack the joints with thin CA.

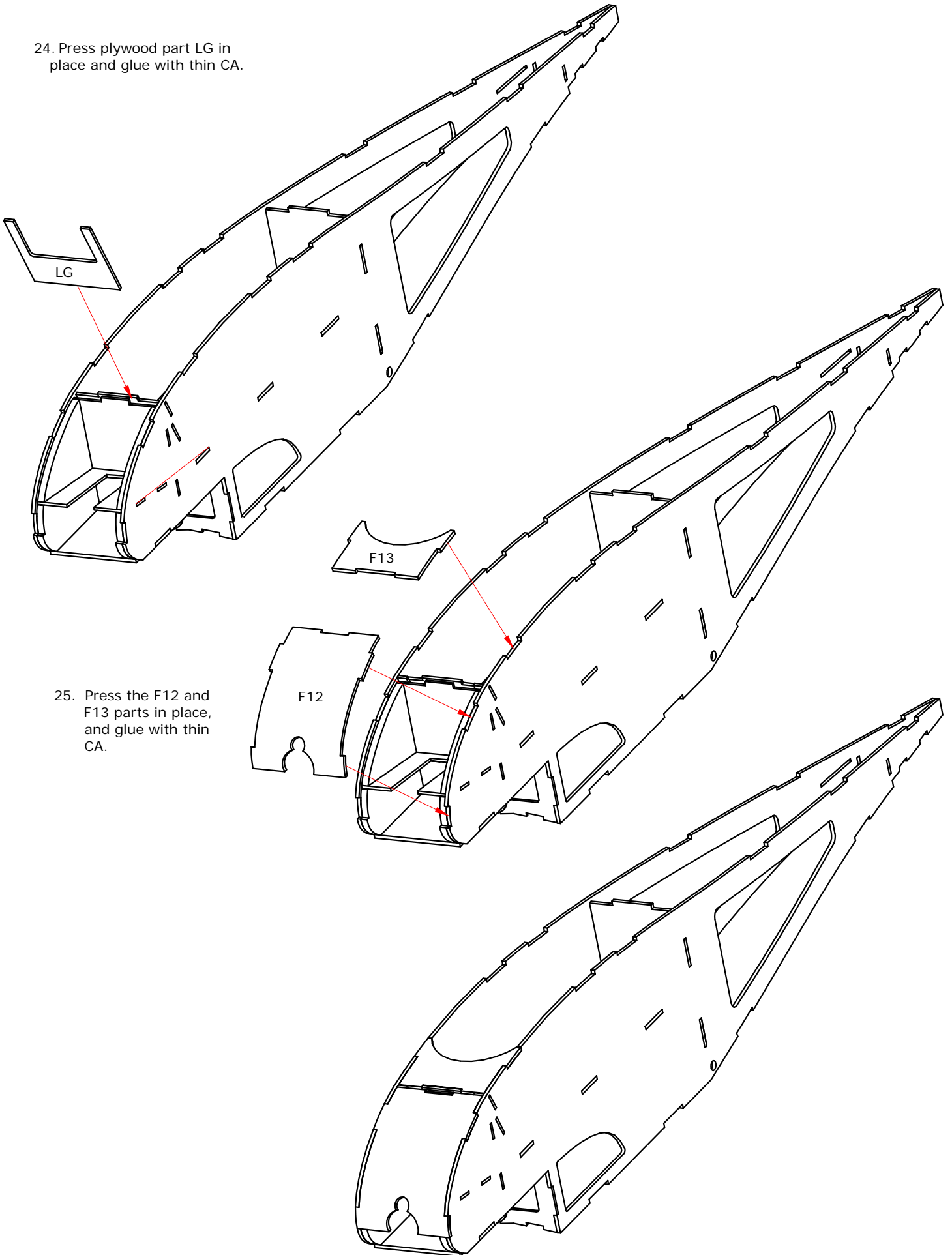


22. Glue the F23 and F24 parts to the INSIDE of the fuselage sides, as shown.



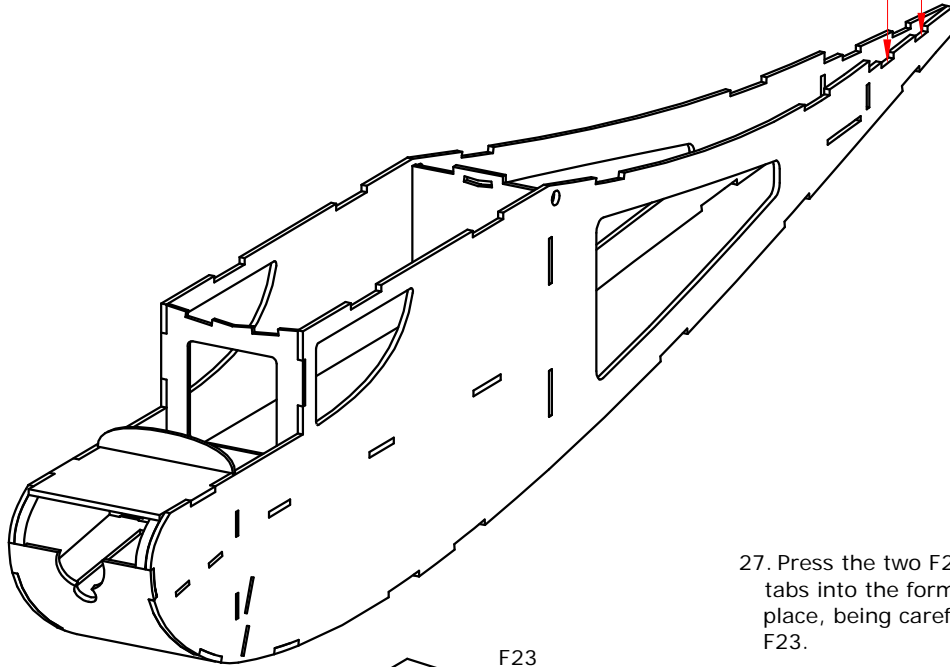
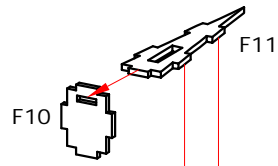
23. Glue the F19 part in place, as shown.

24. Press plywood part LG in place and glue with thin CA.

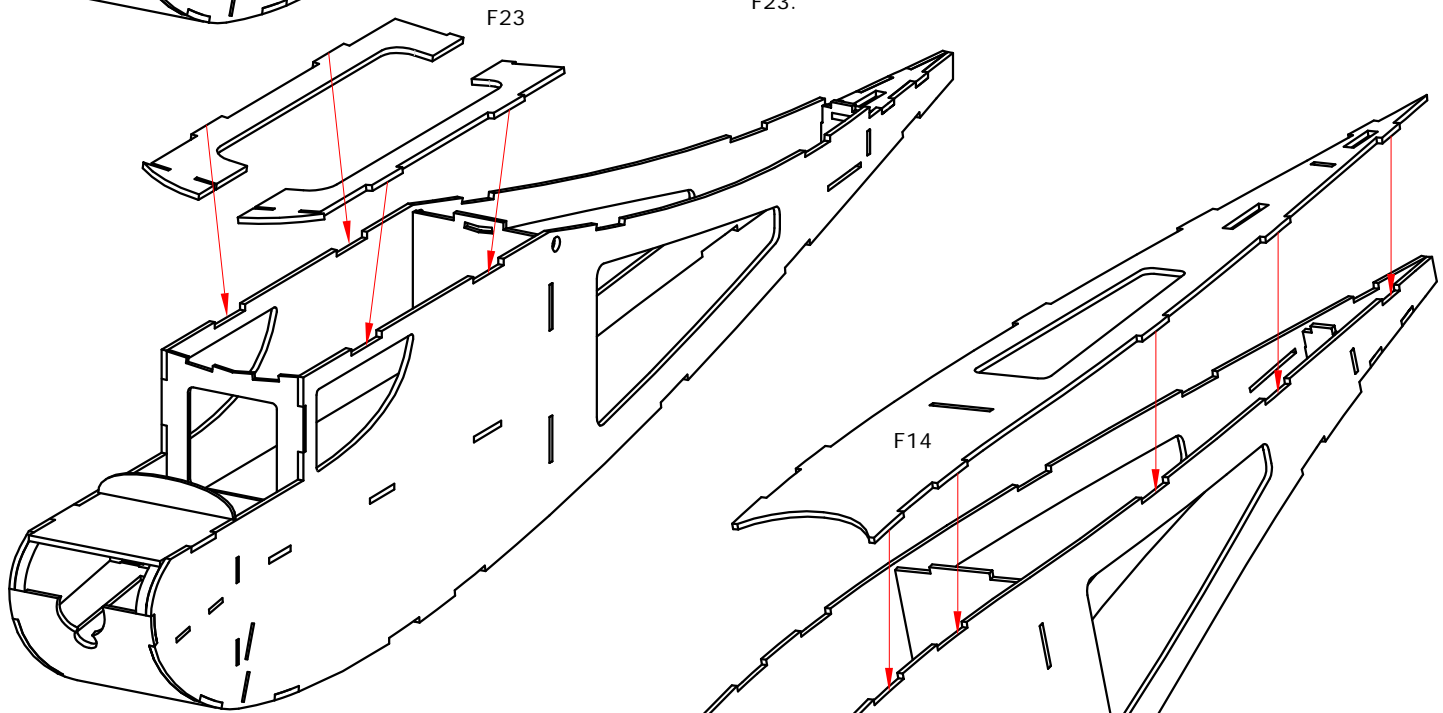


25. Press the F12 and F13 parts in place, and glue with thin CA.

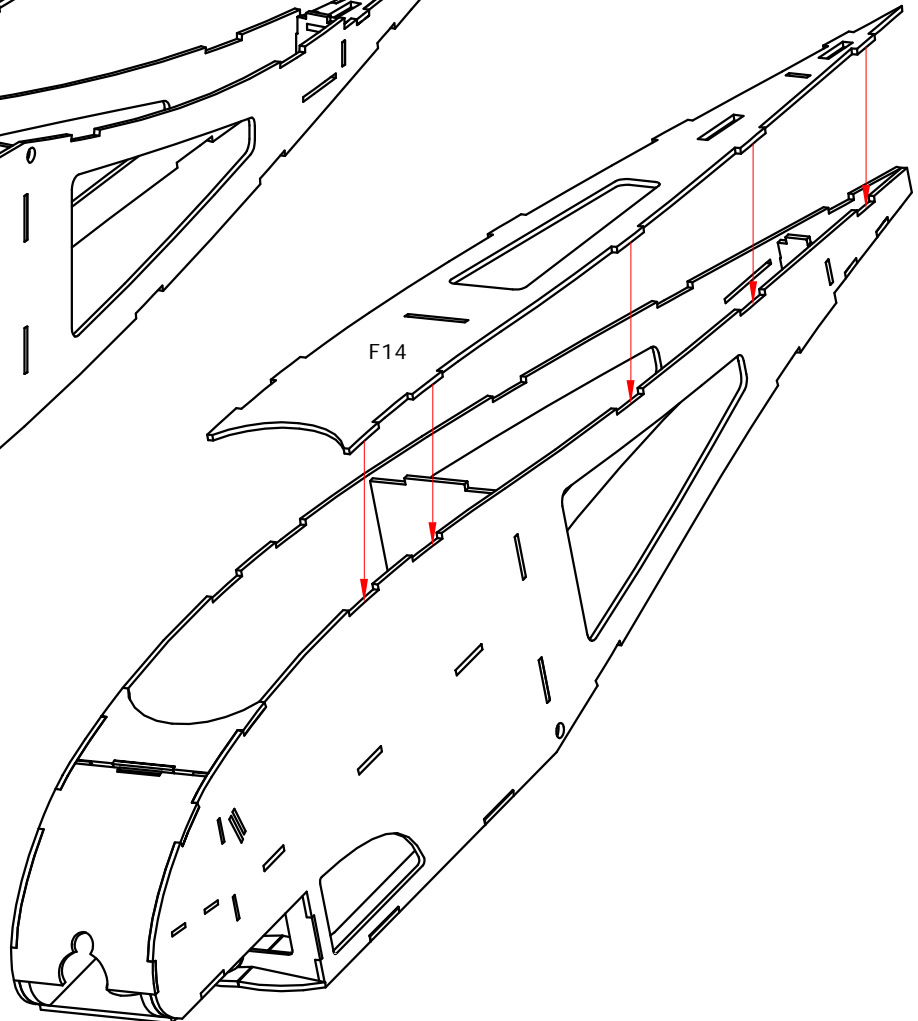
26. Press F11 into F10 and then press in place between the fuselage sides. Do NOT glue it yet.

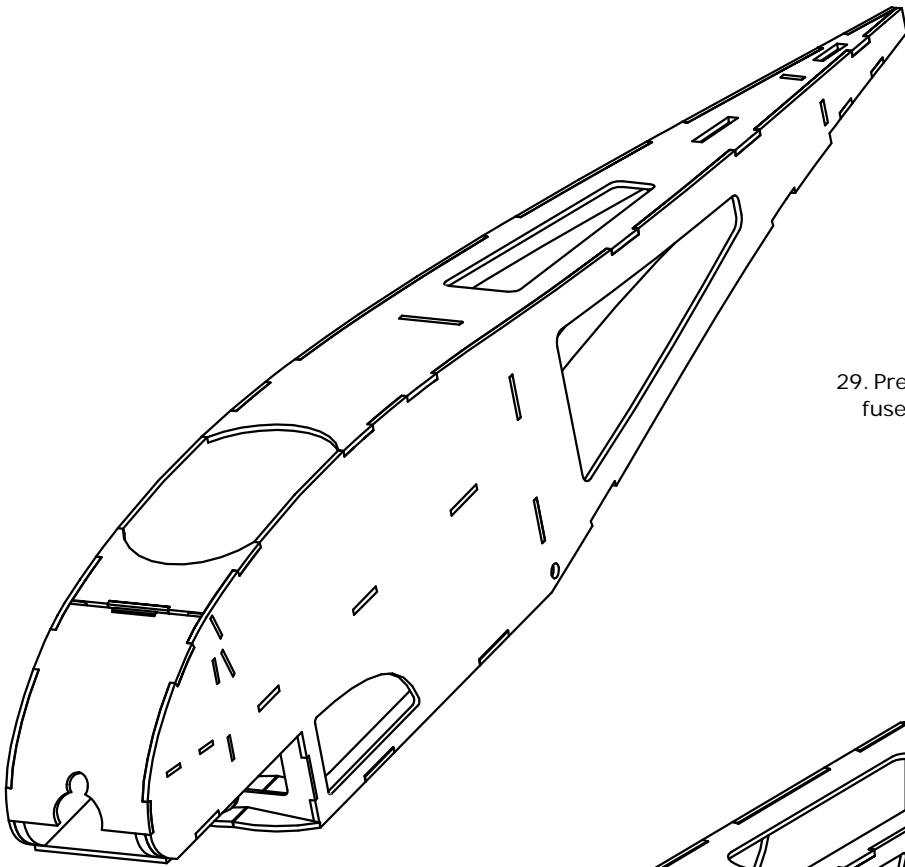


27. Press the two F23 in place, by sliding the back tabs into the former and lowering them down into place, being careful with the thin front section of F23.

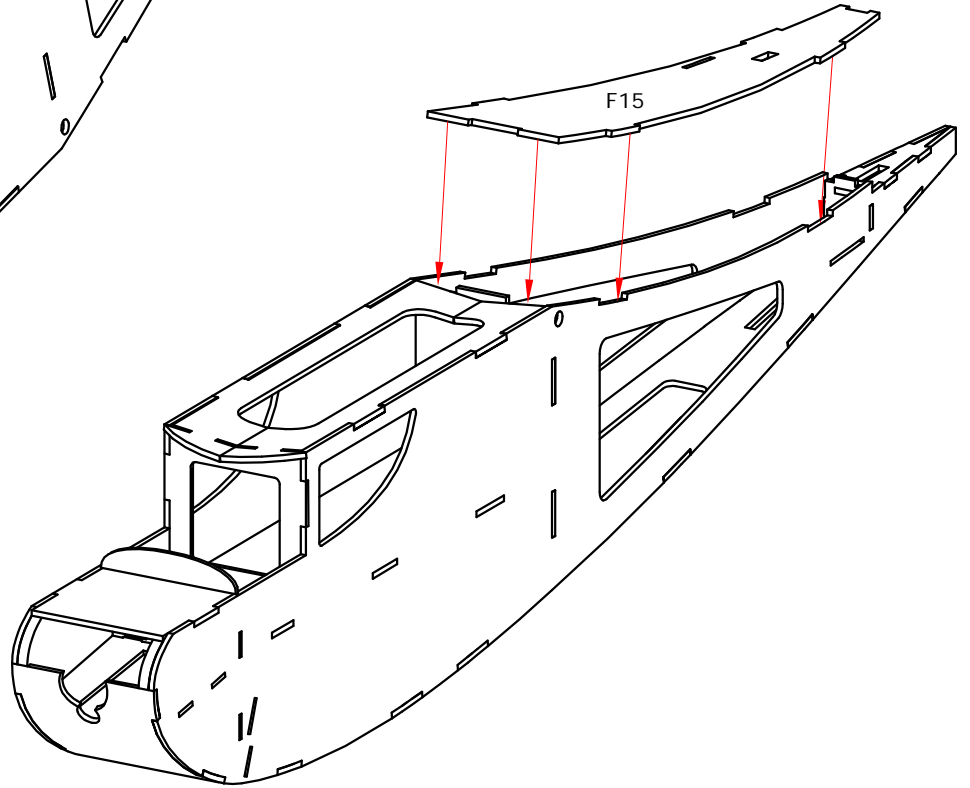


28. Press F14 in place on the fuselage bottom. Make sure the fuselage is straight and square and secure the joints with thin CA.

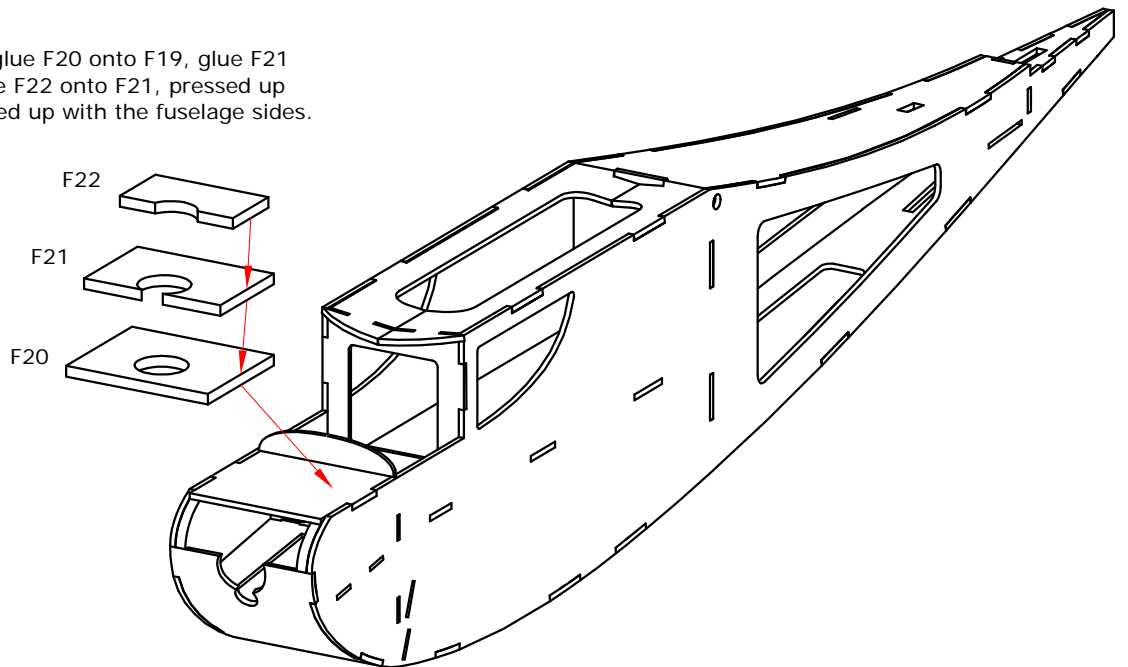




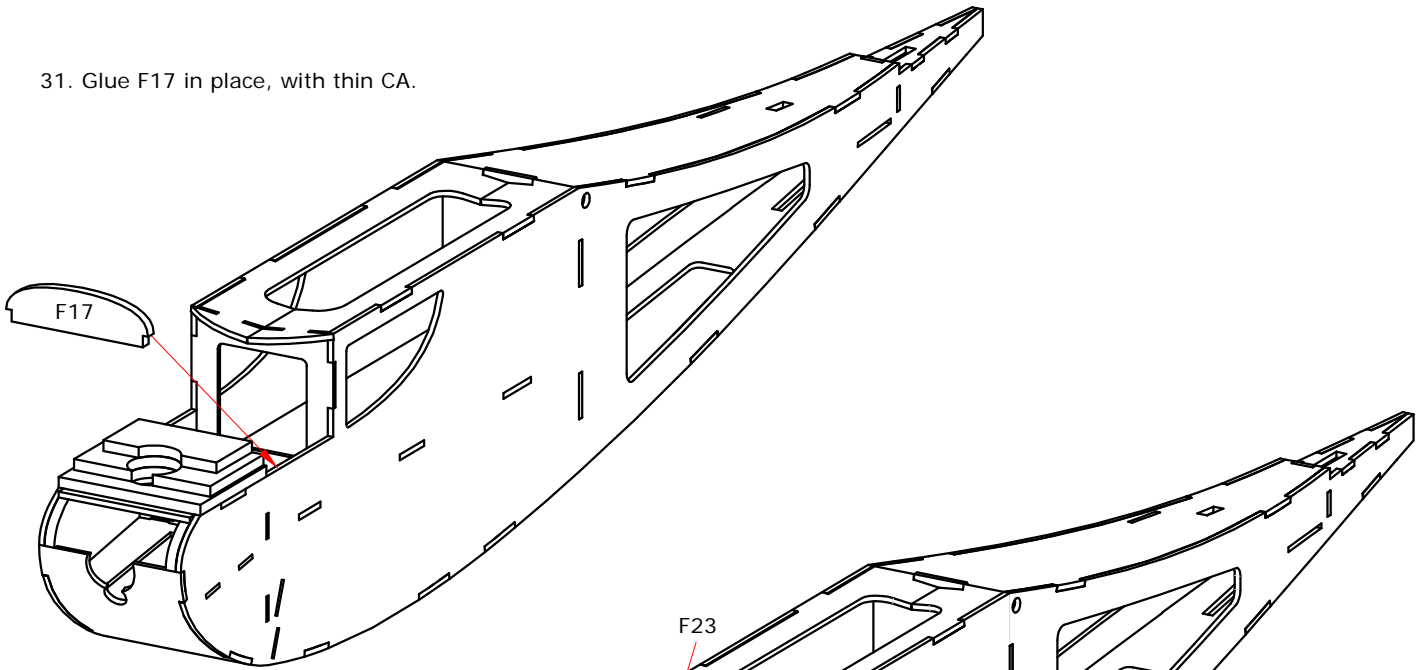
29. Press F15 in place. Once again, ensure that the fuselage is straight and glue with thin CA.



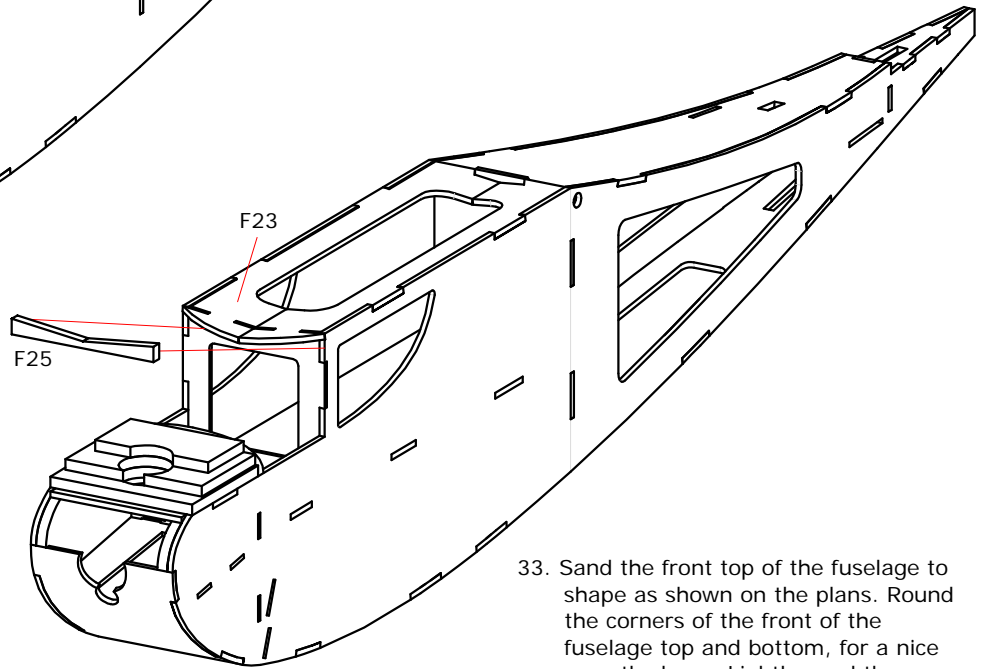
30. Using thick CA, glue F20 onto F19, glue F21 onto F20, and glue F22 onto F21, pressed up against F2 and lined up with the fuselage sides.



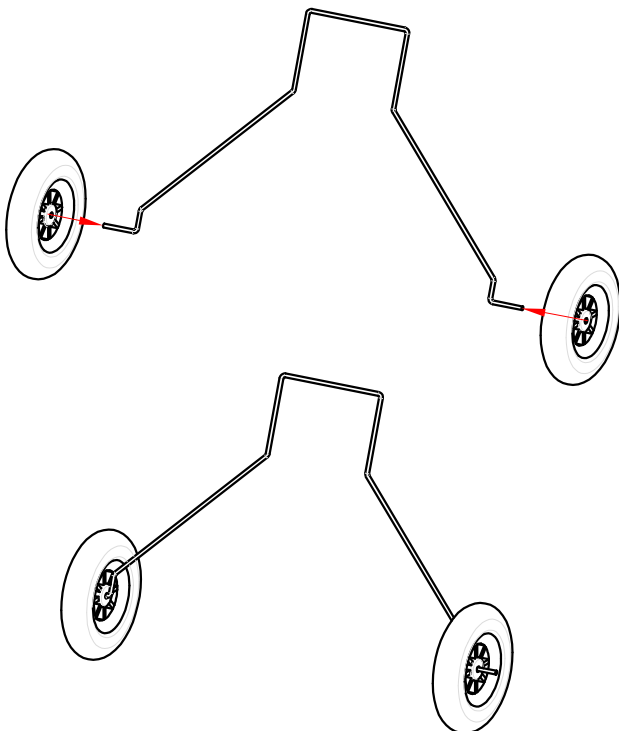
31. Glue F17 in place, with thin CA.



32. FIT the 3/32" balsa F25 parts onto the F4 former, up against the top F23 parts, as shown. Glue in place with thin or thick CA.

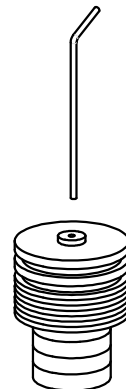


33. Sand the front top of the fuselage to shape as shown on the plans. Round the corners of the front of the fuselage top and bottom, for a nice smooth shape. Lightly sand the entire fuselage with 320 grit sandpaper.

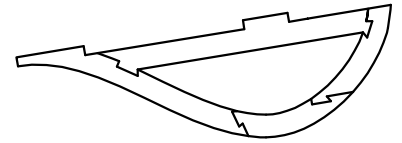
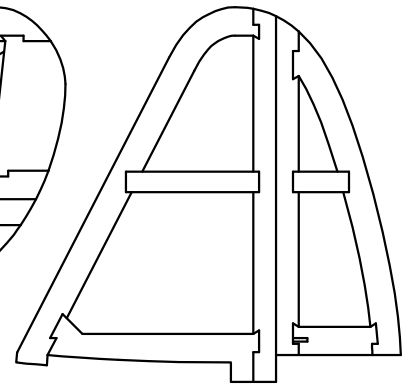
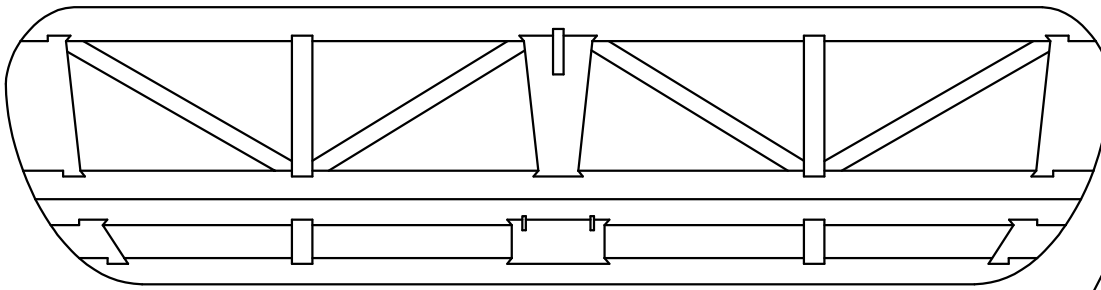


34. Bend and cut the main landing gear wire, as shown on the plans.

35. Secure the wheels to the landing gear, as shown on the plans.



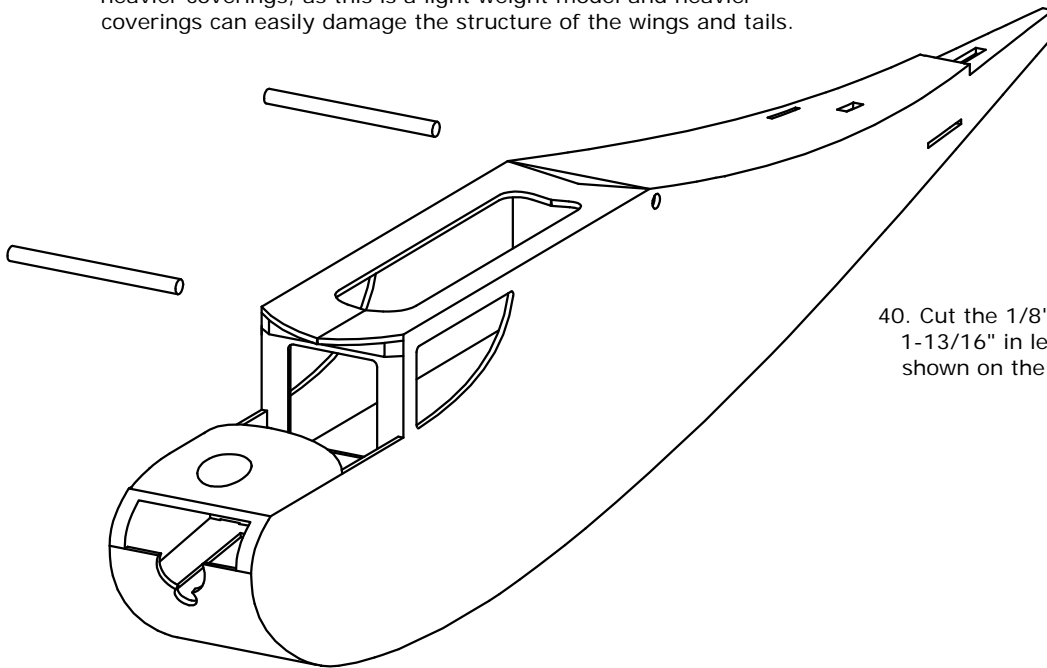
36. Lightly sand the outer edges of the dummy motor parts. Assemble the motor, as shown on the plans. Leave about 1/16" of wire below the bottom N2 part for securing to the fuselage later on.



37. Assemble the horizontal stabilizer, elevator, vertical fin, rudder, and skid as shown on the plans, with thin CA.

38. Bevel the elevator and rudder, as shown on the plans, and lightly sand the stab, elevator, vertical fin, and rudder with 320 grit sandpaper.

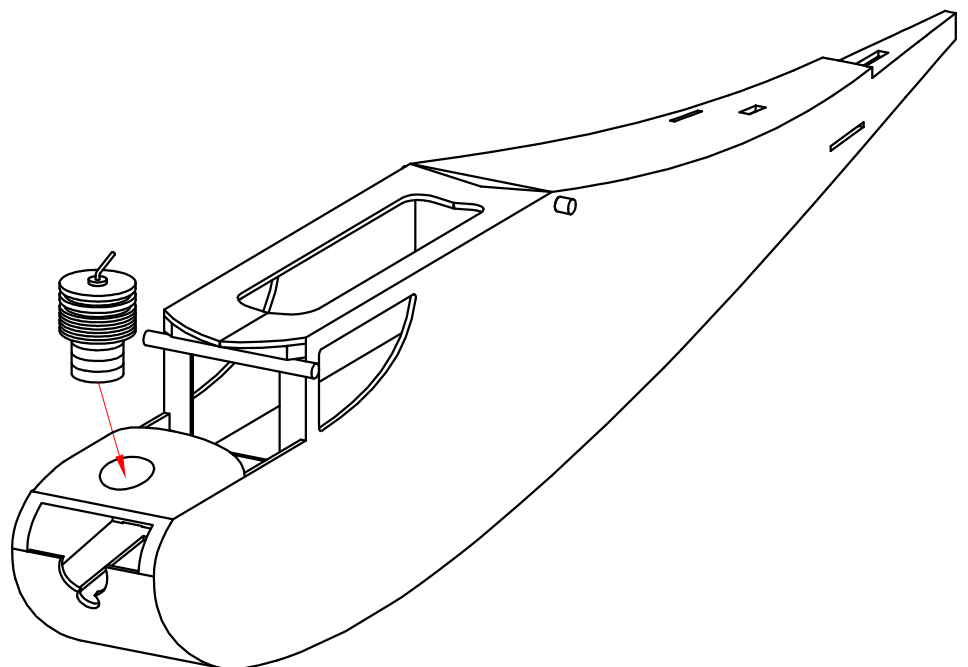
39. Cover your airplane with SoLite, tissue, or silkspan. Do NOT use heavier coverings, as this is a light weight model and heavier coverings can easily damage the structure of the wings and tails.



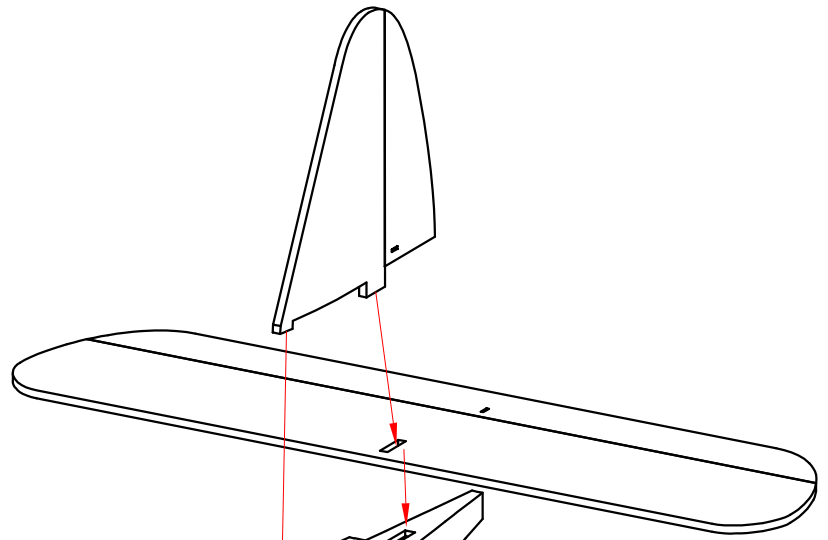
40. Cut the 1/8" dowel to 2 lengths that are 1-13/16" in length. Install in the fuselage, as shown on the plans.

41. Paint the dummy motor, as you'd like.

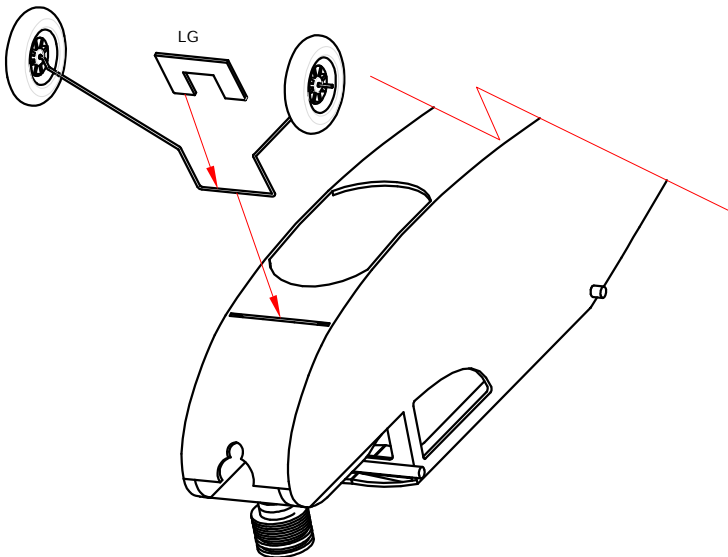
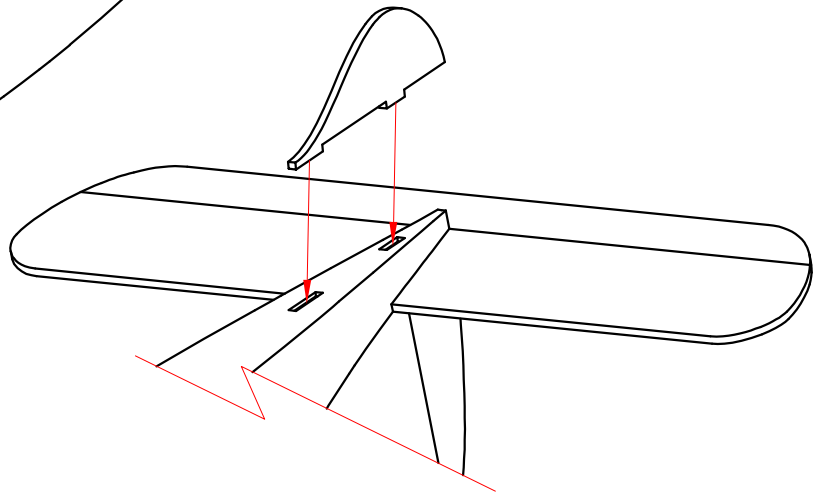
42. Insert the dummy motor through the hole in the fuselage and glue to F19, using thick CA.



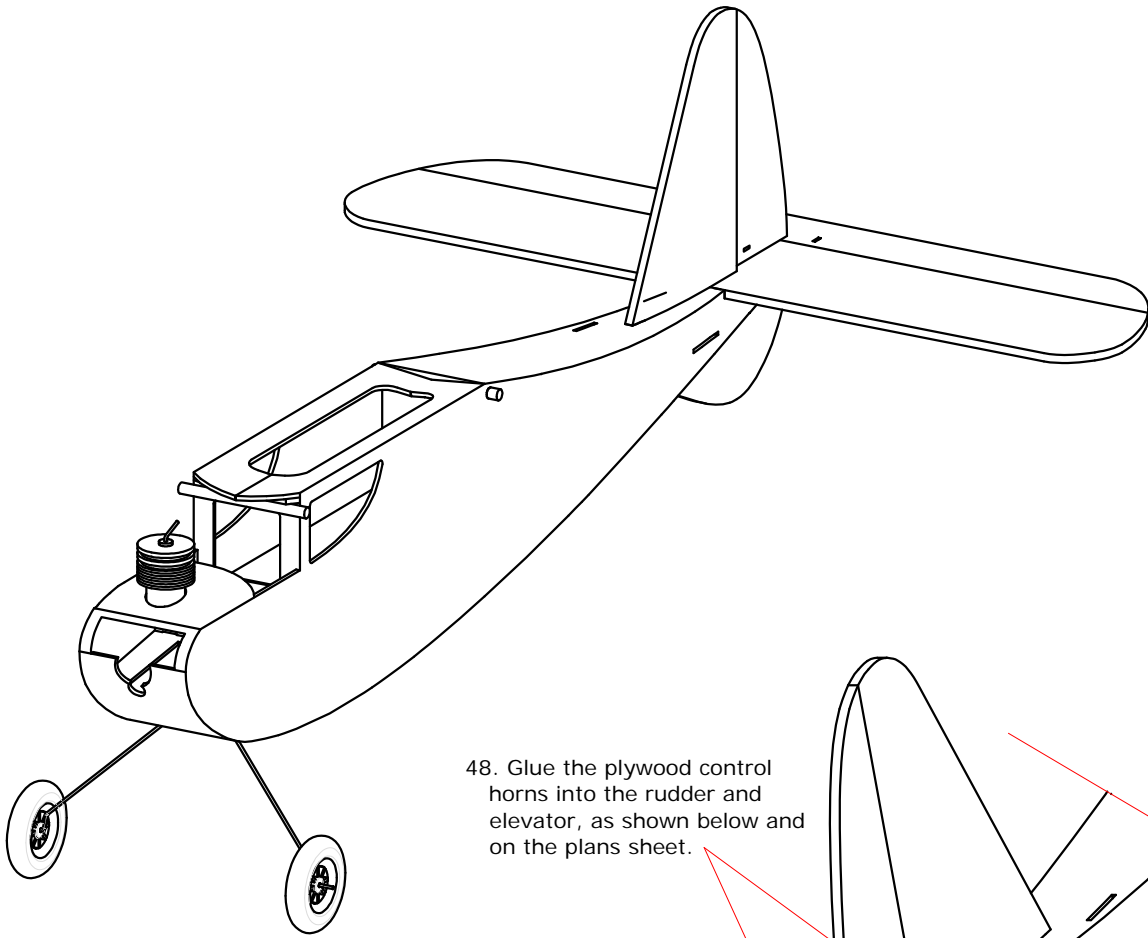
43. Hinge the elevator to the stabilizer using hinge tape, as shown on the plans. There should be a small (1/64") gap between the parts. Do the same for the rudder and vertical fin.
44. Glue the horizontal stab to the fuselage, using the vertical for proper alignment. Remove the vertical before the glue dries and MAKE SURE that the stab is parallel to the top of the fuselage!!!!
45. Glue the vertical fin to the horizontal stab and fuselage, making sure that the vertical is perpendicular to the horizontal stab!!



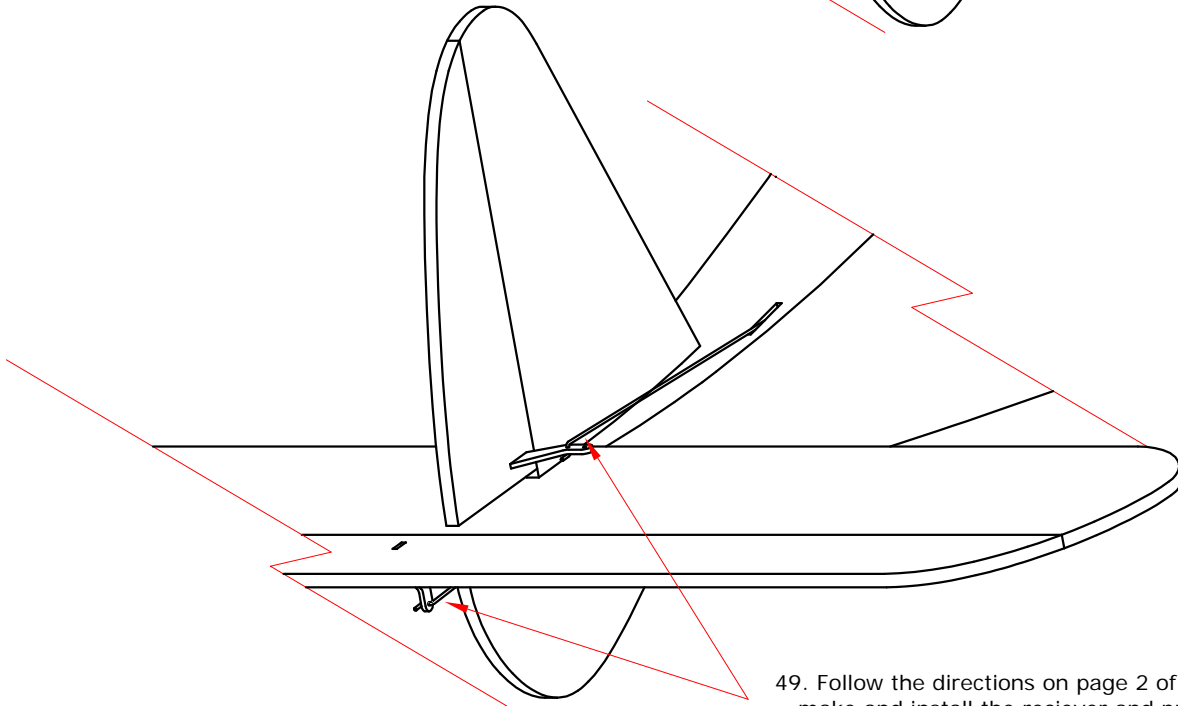
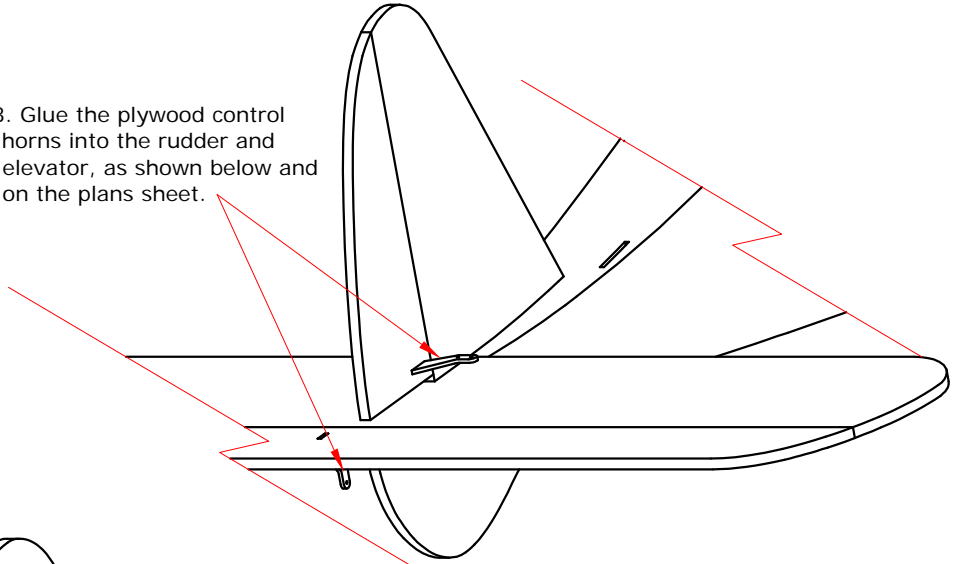
46. Glue the skid to the bottom of the fuselage, making sure that it is perpendicular to the horizontal stab.



47. Press the landing gear into the slot on the fuselage bottom. Press in the landing gear retaining part, F17. You can use thin CA to glue in the retainer, if you do not want to remove the landing gear later on.

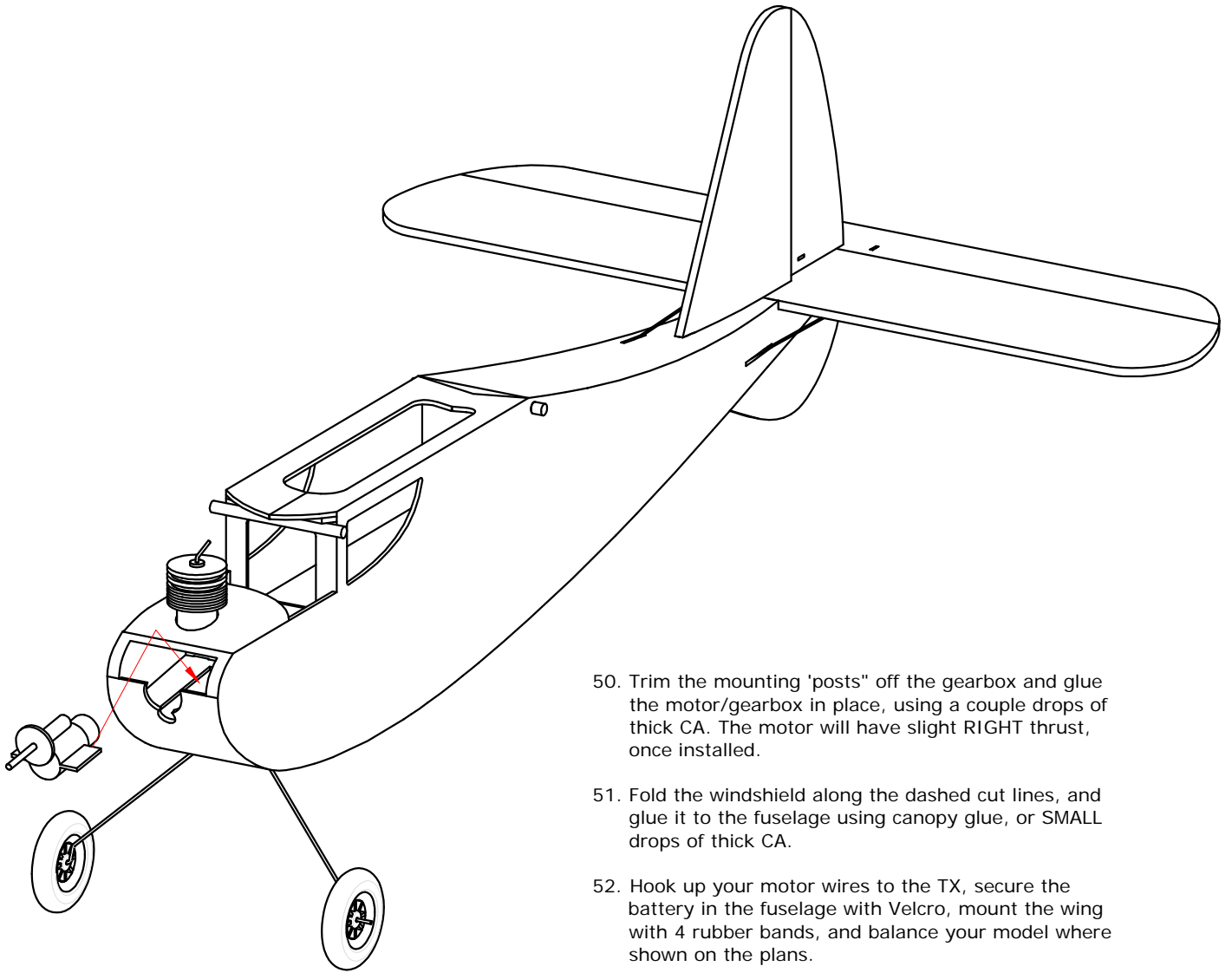


48. Glue the plywood control horns into the rudder and elevator, as shown below and on the plans sheet.



49. Follow the directions on page 2 of the plans to make and install the receiver and pushrods.





50. Trim the mounting 'posts" off the gearbox and glue the motor/gearbox in place, using a couple drops of thick CA. The motor will have slight RIGHT thrust, once installed.
51. Fold the windshield along the dashed cut lines, and glue it to the fuselage using canopy glue, or SMALL drops of thick CA.
52. Hook up your motor wires to the TX, secure the battery in the fuselage with Velcro, mount the wing with 4 rubber bands, and balance your model where shown on the plans.
53. Enjoy flying your Tom-E-Boy Micro model! If you need help learning how to fly, ask around at a local hobby shop or contact the AMA (Academy of Model Aeronautics) at [www.modelaircraft.org](http://www.modelaircraft.org)