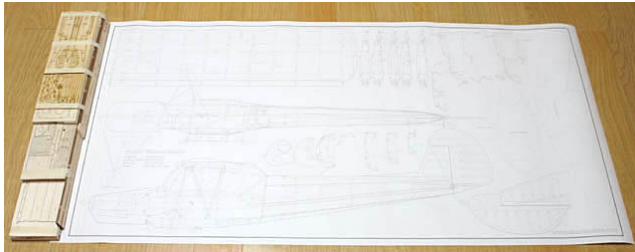


# Fi-156 Fieseler STORCH INSTRUCTIONS [www.estarmodels.com](http://www.estarmodels.com)

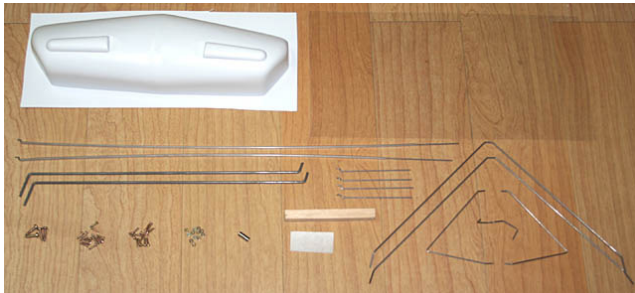
## ● KIT INCLUDES



Full size plan.

### Lasercut parts.

- 1.5mm(1/16")xL600mm(24") balsa : 3sheets
- 1.5mm(1/16")xL465mm(18.5") balsa : 1sheet
- 1.5mm(1/16")xL330mm(13.2") balsa : 3sheets
- 3.0mm(1/8")xL600mm(24") balsa : 2sheets
- 3.0mm(1/8")xL465mm(18.5") balsa : 3sheets
- 3.0mm(1/8")xL330mm(13.2") balsa : 2sheets
- 4.0mm(5/32")xL465mm(18.5") balsa : 1sheet
- 5.0mm(3/16") balsa stick(W31) : 2ea
- 5.0mm(3/16") xL330mm(13.2") balsa : 1sheet
- 2.0mm(5/64")xL300mm(12") plywood : 1sheet
- 3.0mm(1/8")xL600mm(24") plywood : 3sheets
- 3.0mm(1/8")xL200mm(8") plywood : 1sheet



Vacuum formed Cowl and Canopy.

- Motor mount 10x10x90mm.
- Landing gears(2ea), Silicon tubes(4ea) and Tail gear.
- 2mm bolts and nuts(6sets), 2mm screws(8ea).
- 3mm Wing screws (4ea).
- Neodymium Manetics (4ea)
- CA hinge.
- Pushrods(6ea) for Rudder, Elevator, Ailerons and flaps.



Instructions and Stickers.

## ● ITEMS NEEDED TO COMPLETE



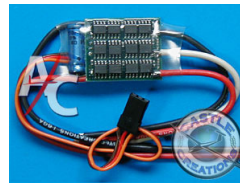
480motor (2.5~3:1) or BL motor (5~6:1 geared, 12~15A).



Mini Receiver(5-7 channel).



6 submicro Servos (Hitec HS-55 / Futaba S3108 / GWS pico servos, or equivalent) Servo extension cords and Y-harness.



ESC (25A).



Propeller 9x7~10x6.



2~3 rolls of covering film. (Solite/Monokote/Oracover)

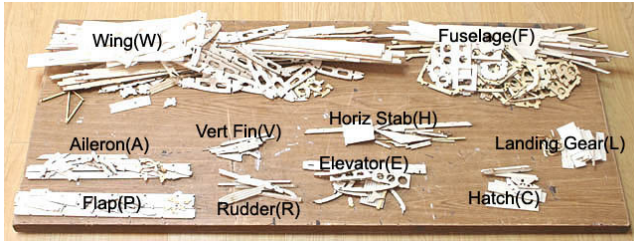


Li-Poly 11.1V 1700~1800mAh Battery w/Li-Poly charger.



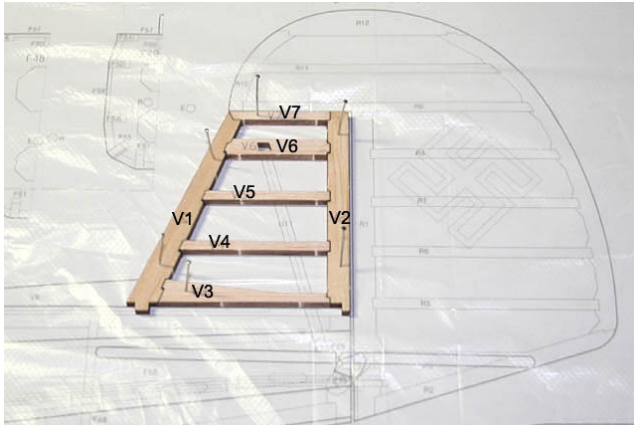
50mm(2") Wheels, Wheel Collars (4ea) and Rod adjusters (6ea).

## ● PREPARATION

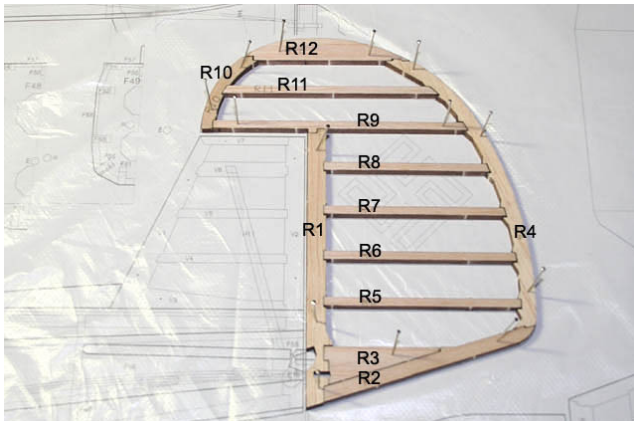


Remove parts from laser-cut panel and group as shown above.

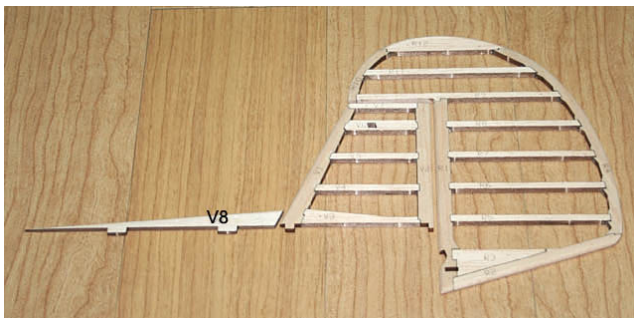
## ● VERTICAL TAIL



1. Lay waxed paper or PVC film over the plan. Pin the vertical fin parts(V1-V7) on the plan and glue together with thick CA.

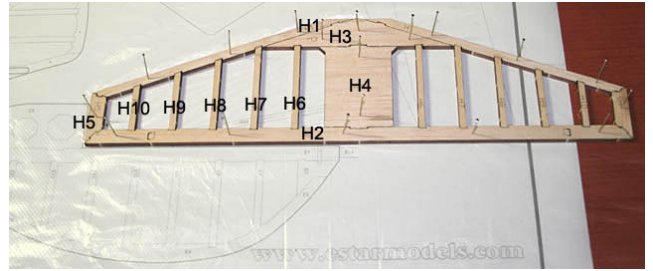


2. Pin the rudder parts(R1-R12) on the plan and glue together with thick CA.

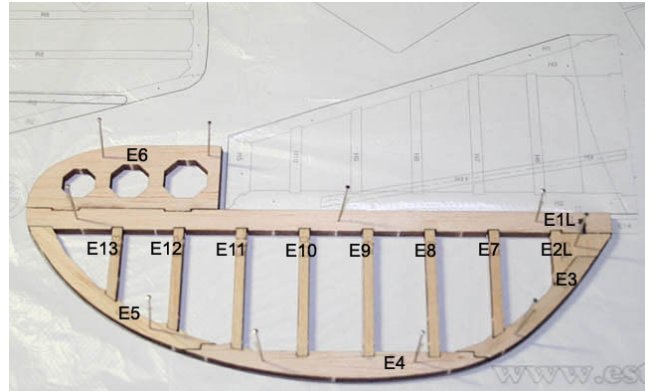


3. Remove vertical tail from the plan and **apply thick CA glue at each joints for reinforcing** and Carefully sand surfaces.

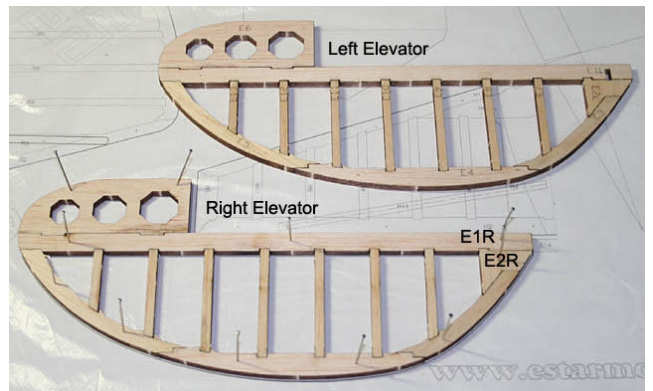
## ● HORIZONTAL TAIL



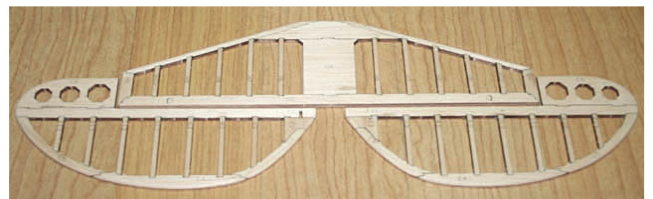
1. Pin the stabilizer parts (H1-H10) on the plan and glue together with thick CA.



2. Pin the left elevator parts(E1L, E2L, E3-E13) on the plan and glue together with thick CA.

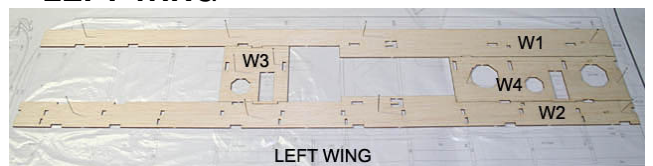


3. Pin the right elevator parts(E1R, E2R, E3-E13) on the plan and glue together with thick CA.

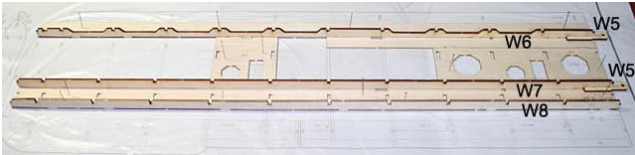


4. Remove horizontal tail from the plan and **apply thick CA glue at each joints for reinforcing** and Carefully sand surfaces.

## ● LEFT WING



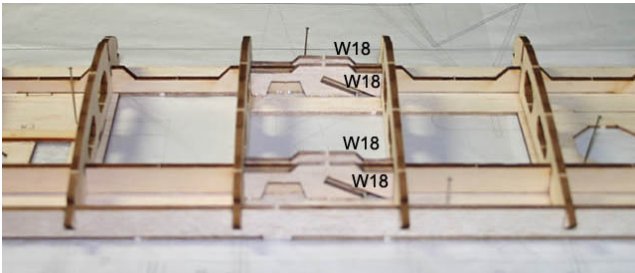
1. Pin bottom sheets(W1-W4) on the plan and glue together with thick CA.



2. Assemble and glue plywood wing joiners(W5), plywood lower spars(W6, W7) and sub trailing edge(W8) with thick CA.



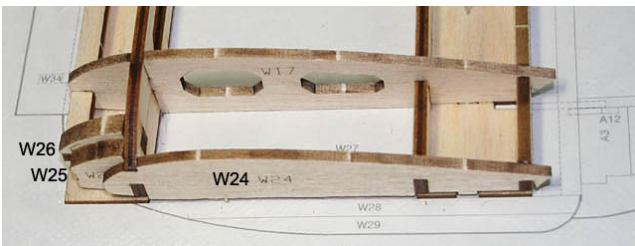
3. Assemble and glue plywood servo trays(W9) and ribs(W10-W17).



4. Glue sockets for strut(W18) with thick CA.



5. Assemble and glue plywood upper spar(W19) and sub leading edge(W20) with thick CA.



6. Assemble and glue wingtip parts(W24-W26) with thick CA.



7. Carve and sand these parts for easy covering.



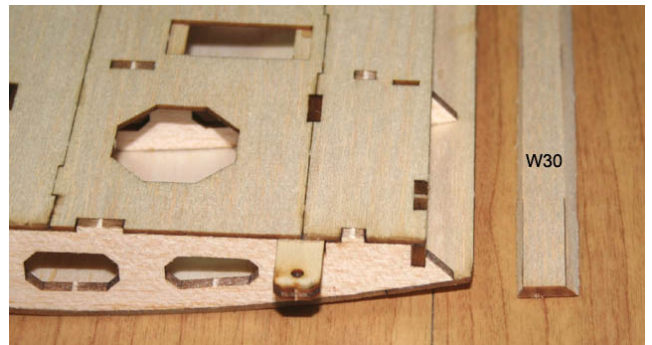
8. Glue top sheets(W21-W23, W27) together with thick CA.



9. Glue top sheets with thick CA.



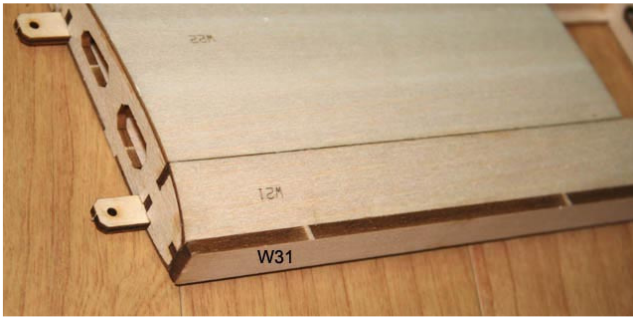
10. Glue wingtip parts(W28-W29) with thick CA.



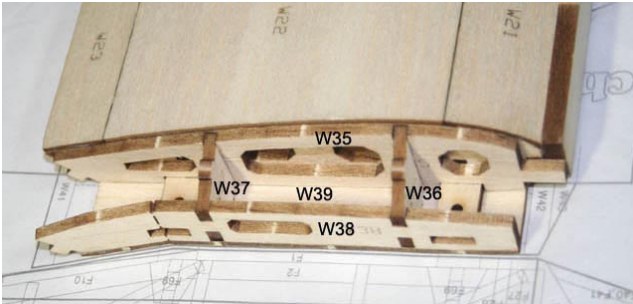
11. Sand trailing edge(W30) as shown.



12. Insert and glue trailing edge.



13. Glue leading edge(W31) with thick CA.



14. Assemble and glue wingroot parts(W35-W39) with thick CA.

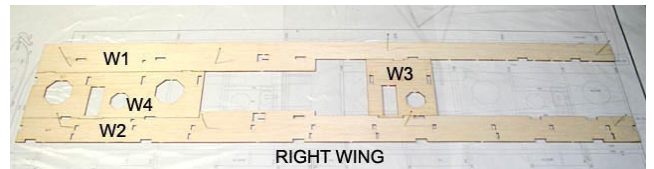


15. Carve and sand these parts for easy covering.



16. Cover the sheets(W40) with thick CA and then glue the parts(W41-W43).

## ● RIGHT WING



1. Assemble right wing.



2. Carefully sand surfaces. (Refer to the section on the drawing)



3. Glue wing slot parts(W32, W33) together.

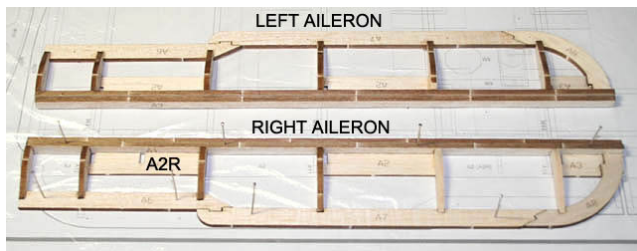


4. Carve and sand. (Refer to the section on the drawing)

## ● AILERONS and FLAPS



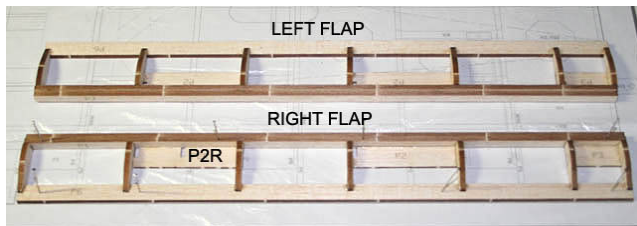
1. Pin the left aileron parts(A1-A9) on the plan and glue together with thick CA.



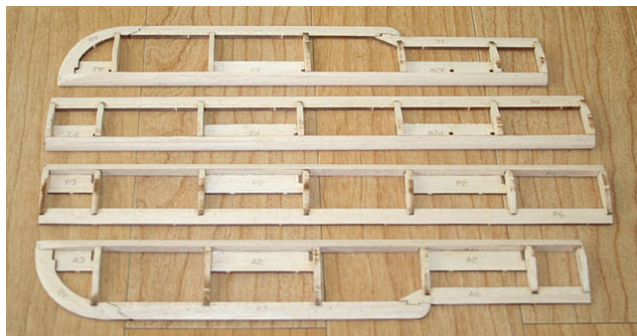
2. Assemble right aileron(A1-A9).



3. Pin the left flap parts(P1-P7) on the plan and glue together with thick CA.

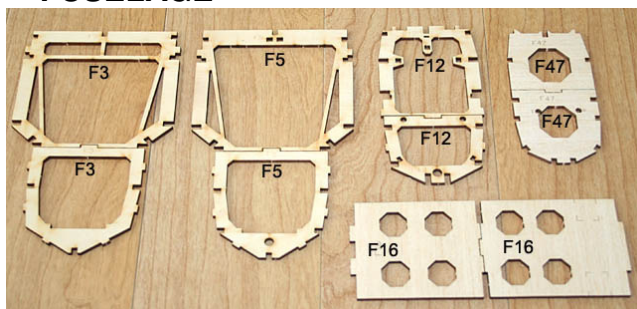


4. Assemble right flap(P1-P7).



5. Carefully sand surfaces. (Refer to the section on the drawing)

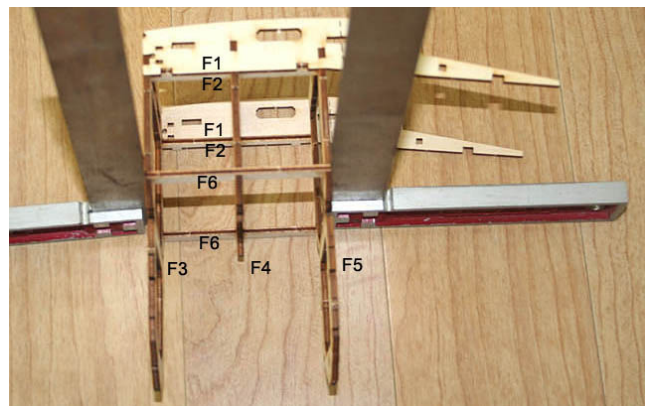
## ● FUSELAGE



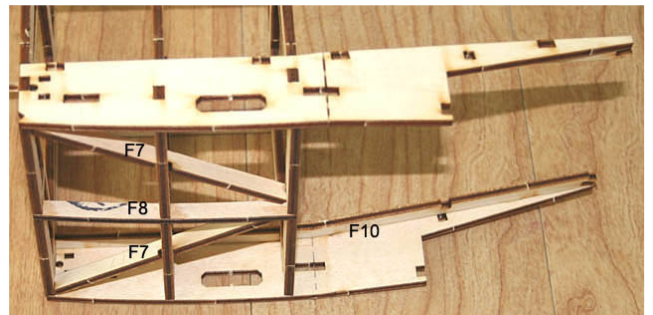
1. Glue Bulkheads(F3, F5, F12, F47) and battery tray (F16) together with thick CA.



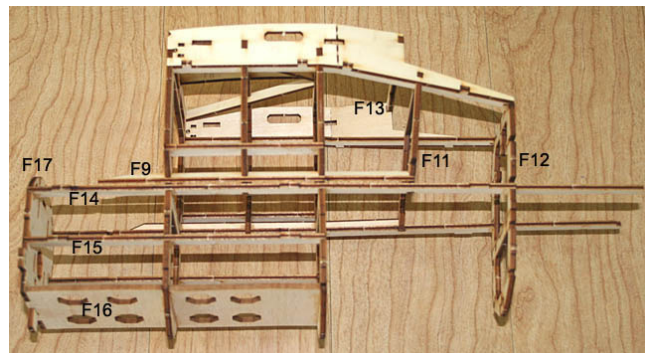
2. Assemble and glue the parts(F1, F2) with thick CA.



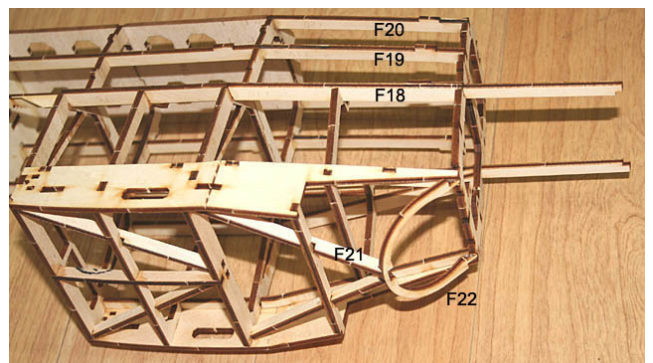
3. Assemble and glue the bulkheads(F3-F5) and longeron (F6) with thick CA. Make sure to pay attention to bulkheads, the numbers should be facing forward.



4. Assemble and glue the parts(F7, F8, F10) with thick CA.



5. Assemble and glue the parts(F9, F11-F17) with thick CA.



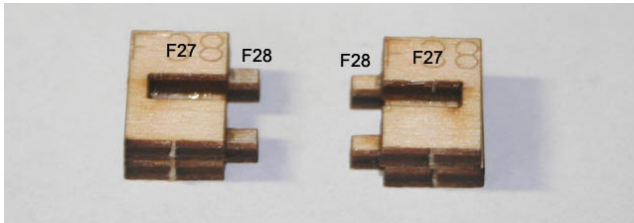
6. Assemble and glue the parts(F18-F22) with thick CA.



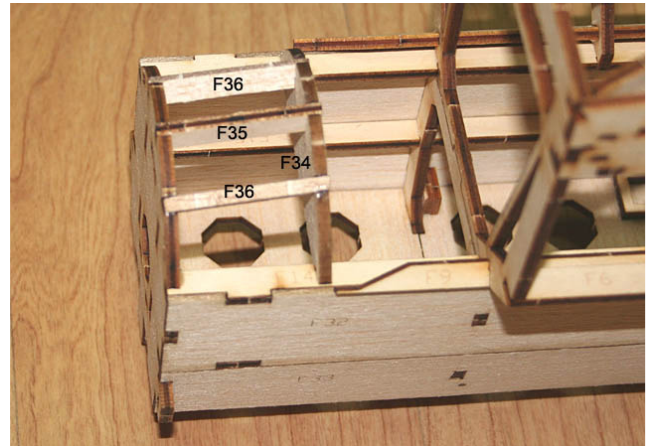
7. Assemble and glue the parts(F23-F26) with thick CA.



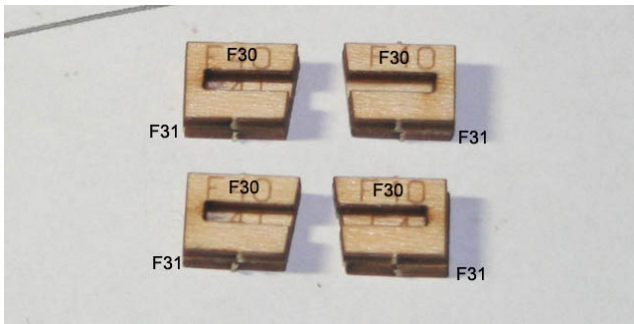
12. Cover the sheets(F32-F33) with thick CA.



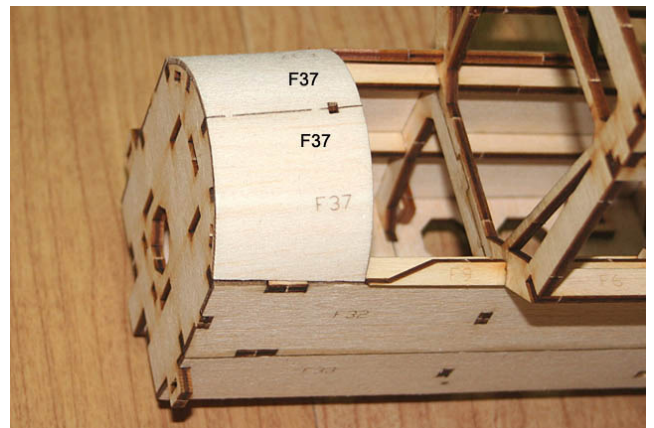
8. Glue the parts (F27-F28) together with thick CA.



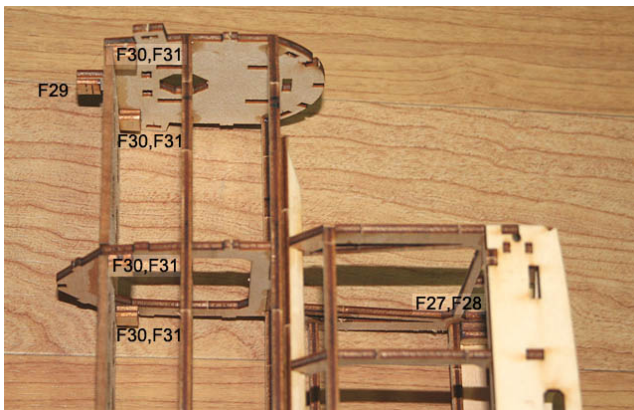
13. Glue the parts(F34-F36) with thick CA.



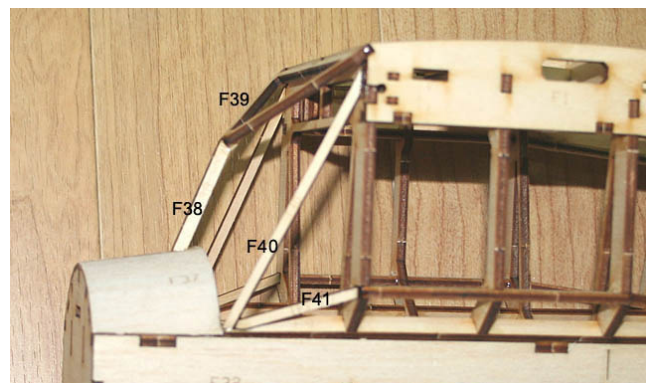
9. Glue the parts (F30-F31) together with thick CA.



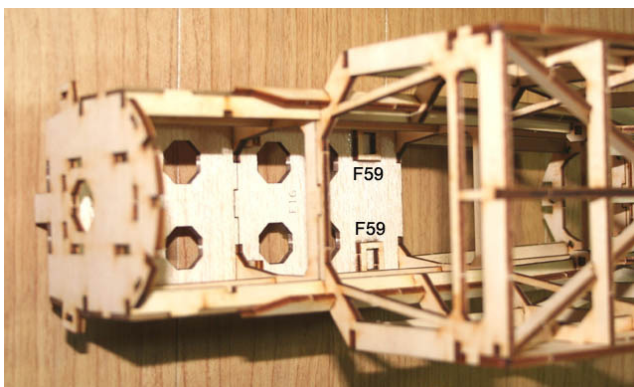
14. Cover the sheet(F37) with thick CA.



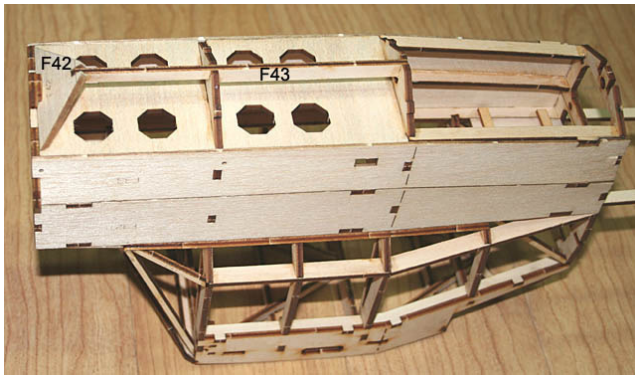
10. Glue the parts (F27-F31) in place with thick CA.



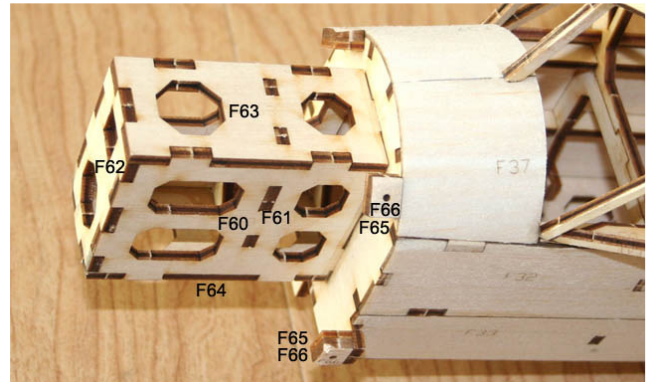
15. Glue the parts (F38-F41) with thick CA.



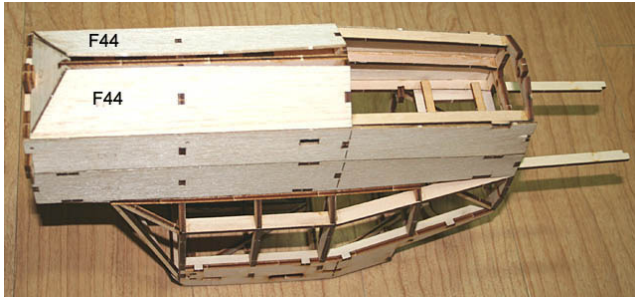
11. Glue the part (F59) in place with thick CA.



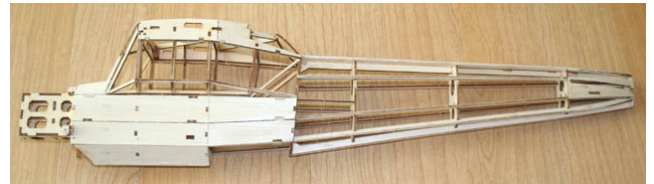
16. Glue the parts (F42-F43) with thick CA.



21. Assemble and glue the parts(F60-F66) with thick CA.



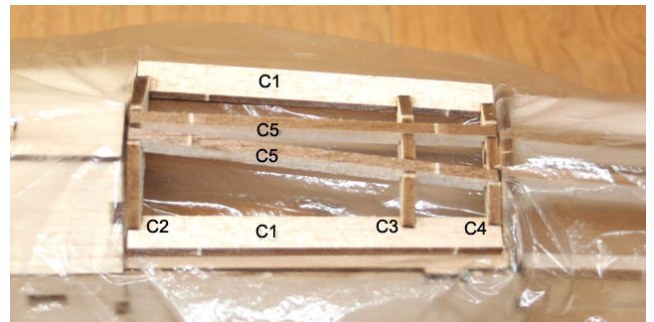
17. Cover the sheet(F44) with thick CA.



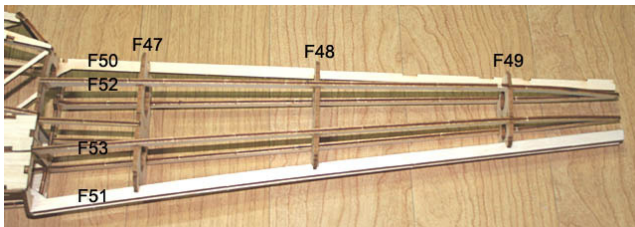
22. Carefully sand surfaces.



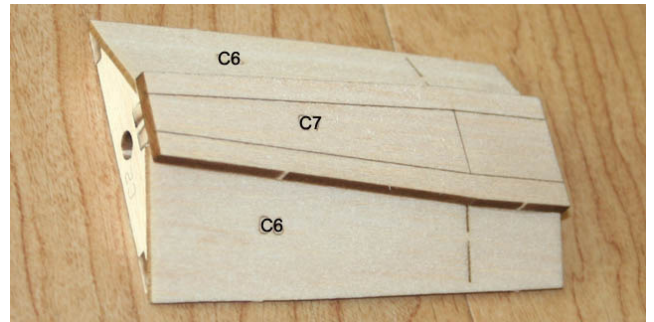
18. Sand part F44 and then glue the parts(F45-F46) with thick CA.



23. Assemble hatch(C1-C5) with **thick CA**. Use PVC film or waxed paper to prevent bonding to fuselage.



19. Assemble and glue the parts(F47-F53) with thick CA.



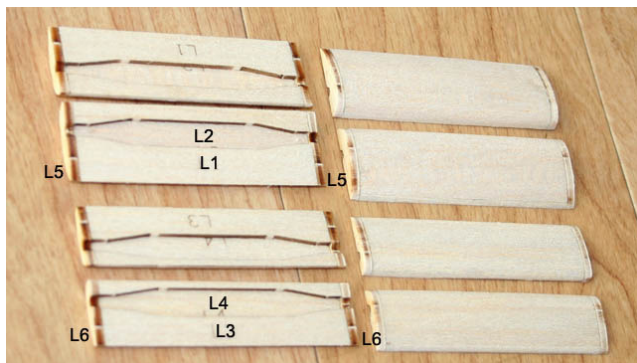
24. Sand part C1 or C6 and then glue the part(C6) with thick CA. Sand part C6 and then glue the part(C7) with thick CA.



20. Assemble and glue the parts(F54-F58) with thick CA.



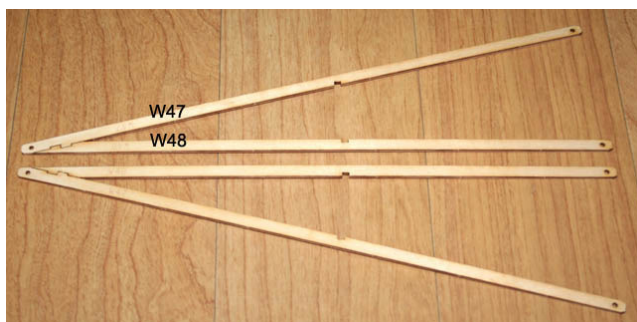
25. Carefully sand surfaces.



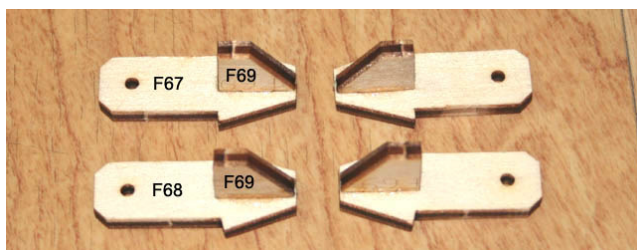
26. Glue the parts (L1-L6) together with thick CA.



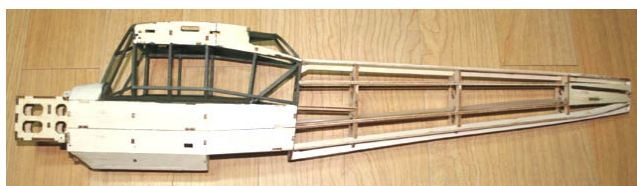
27. Assemble tail wheel as shown above.



28. Glue fore and rear strut (W47-W48) with thick CA.



29. Assemble and glue wing joiners (F67-F69).



30. Paint cockpit area.

● **COVERING AND EQUIPMENT INSTALLATION**



1. Cover Decathlon with your color scheme.



2. Paint parts.



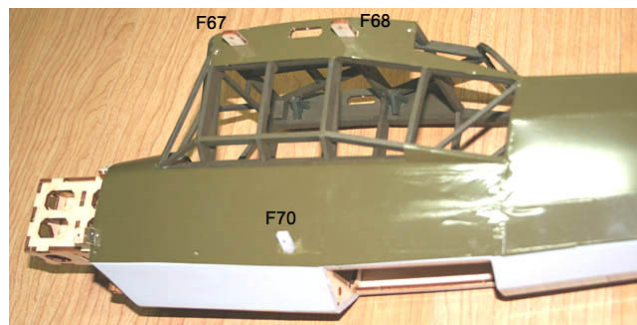
3. Insert and glue plywood slot supports(W34).



4. Glue slots to the wing.



5. Remove slot jig tabs.

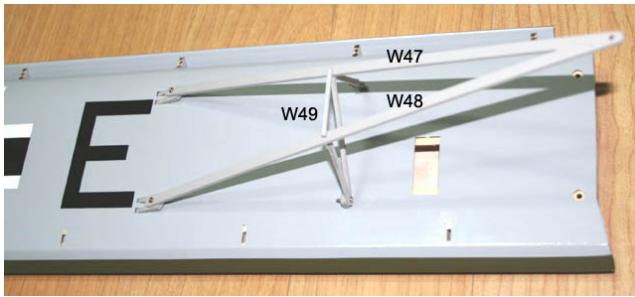


6. Glue wing joiners (F67-F68) and strut mount (F70) in place with thick CA.



7. Insert and glue strut mounts(W45-W46) with thick CA.





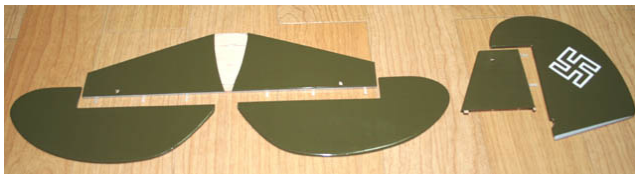
8. Fix strut to the wing with screws and then glue mid strut (W49) to the main strut (W47-W48).



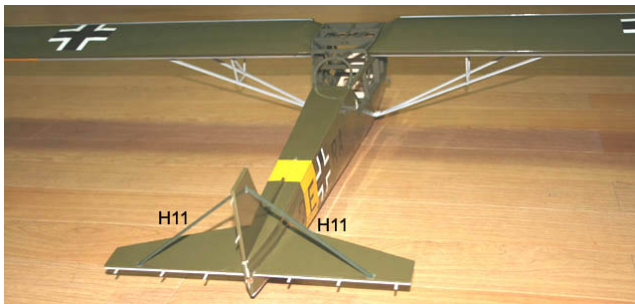
9. Fix struts to the fuselage with screws.



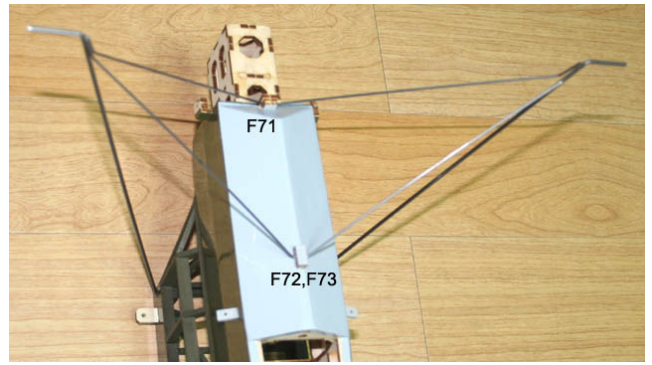
10. Cut CA hinges as shown above.



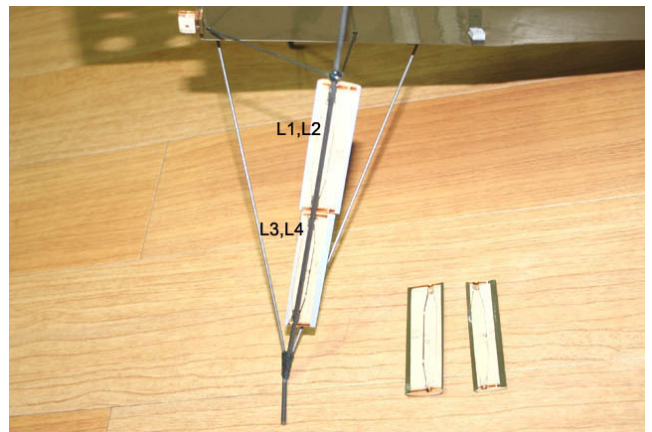
11. Make hinge slots and pre-install hinges. (Do not glue hinges to the control surfaces in this step.)



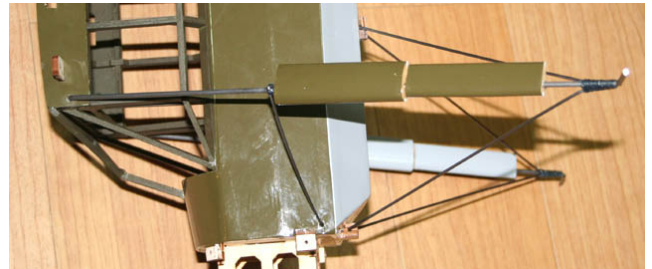
12. Glue stabilizer and vertical fin to the fuselage with thick CA. (Horizontal tail must be paralleled with wing and vertical fin must be at right angle to horizontal tail.) Now, remove wings for next step.



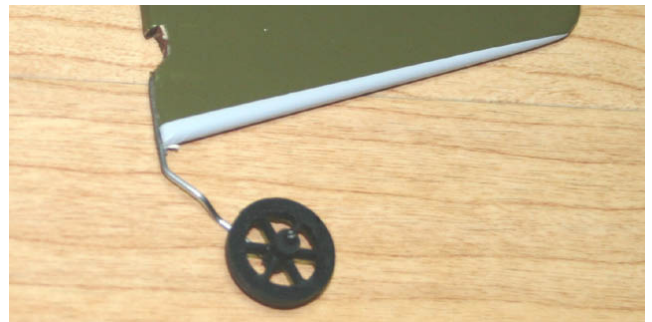
12. Apply thick CA, and then Insert landing gear. Glue landing gear retainers (F71-F73). Tie wires with thread and reinforce with thin CA.



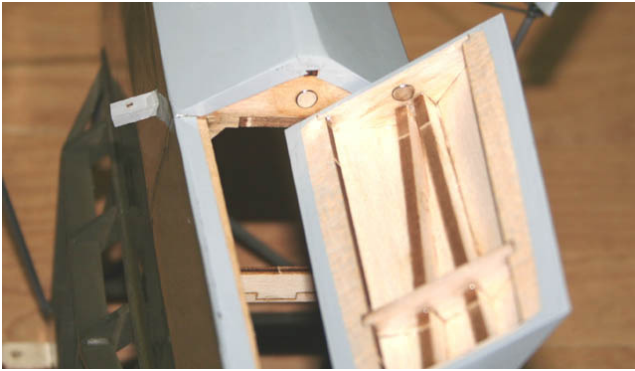
13. Glue dummy struts (L1-L4) with shoe glue or silicon sealant.



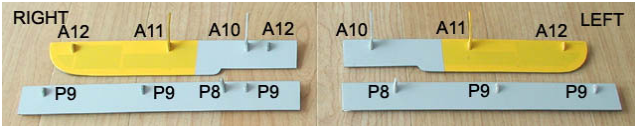
14. Glue another half of dummy struts.



15. Insert and glue tail gear to the rudder with thick CA.



16. Install Neodymium magnetics and then apply thin CA.



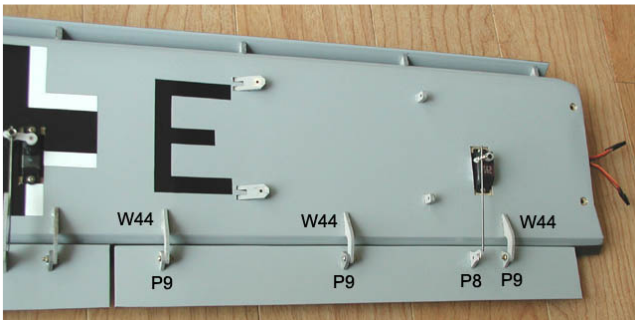
17. Insert aileron and flap hinges (A10-A12, P8-P9). Above servo installation shows for 5channel receiver.



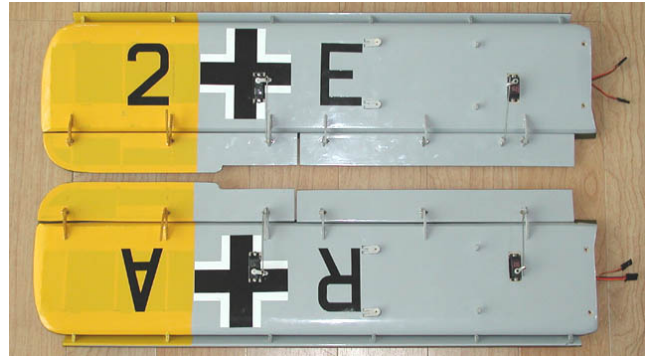
18. Temporarily glue aileron horns (W44) with small amount of CA. After throwing check, and then glue them firmly. Above picture shows for 6channel receiver. aileron(Y-extension), flaps(Y-extension)



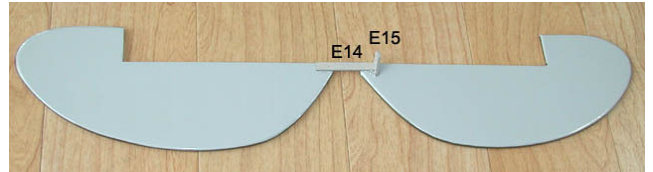
19. This picture shows for 6channel receiver. aileron1, aileron2(mixed), flaps(Y-extension).



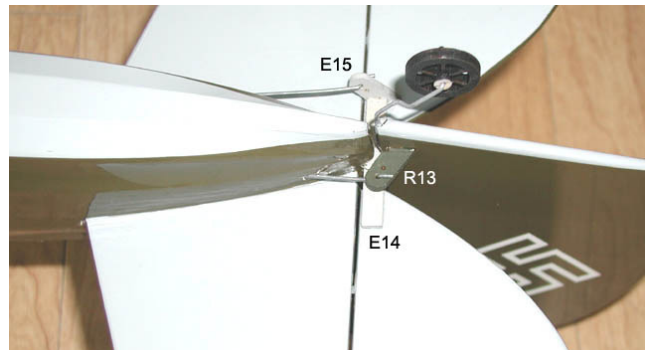
20. Temporarily glue flap horns (W44) with small amount of CA. After throwing check, and then glue them firmly.



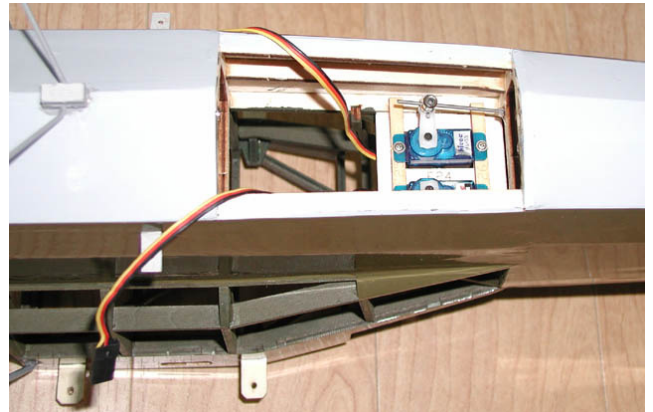
21. Install aileron and flap servos. Above servo installation shows for 6channel receiver. (Flap servos with Y-harness, install additional flap horn-P8).



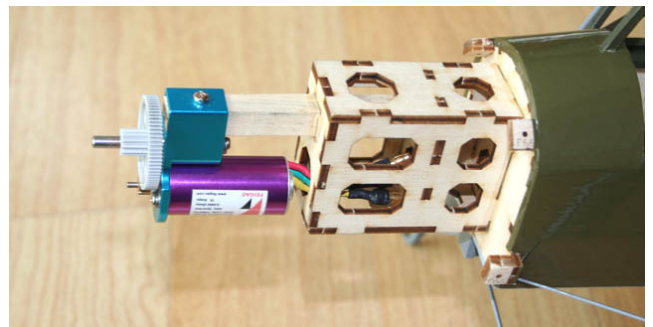
22. Glue elevator joiner and horn with thick CA.



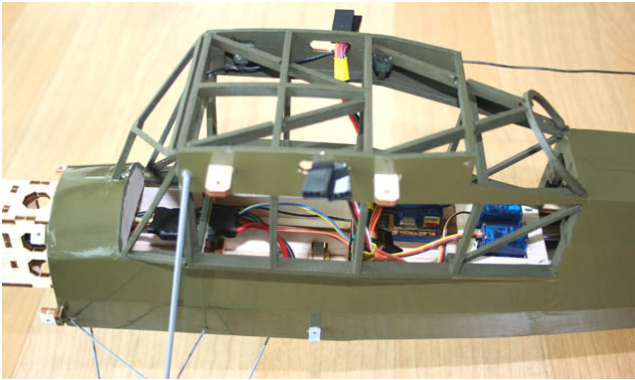
23. Insert elevator and rudder pushrod to the horn and then glue hinges with small amount of thin CA..



24. Install elevator and rudder servos.



25. Install motor and gearbox.



26. Install ESC, receiver and extensions for ailerons and flaps.



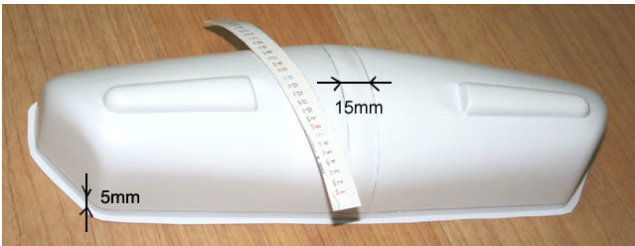
31. Glue strips for reinforcing with thin CA as shown.



27. Cut cowl and strips as shown.



32. Cut holes as shown.



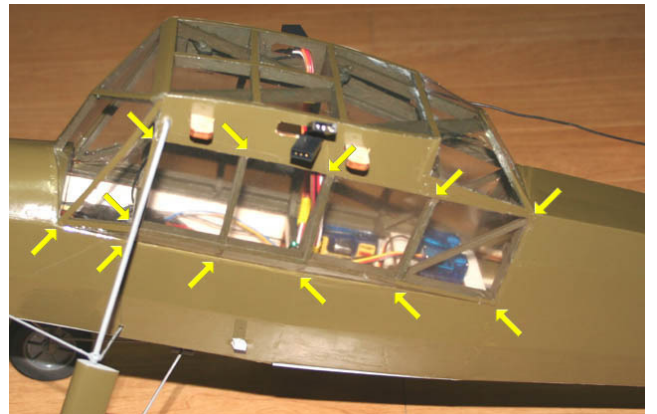
28. Draw cutting line. (5mm above from the bottom)



33. Temporarily assemble cowl with screws.



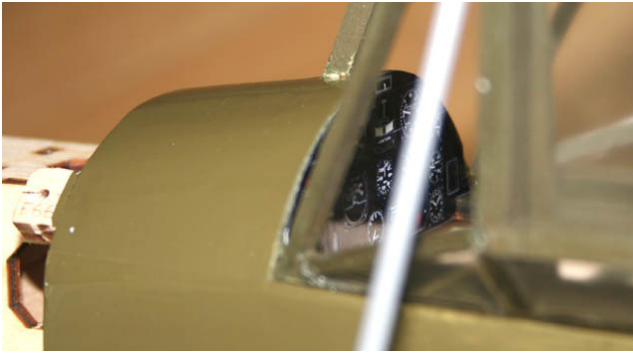
29. Cut cowl and carefully sand edges.



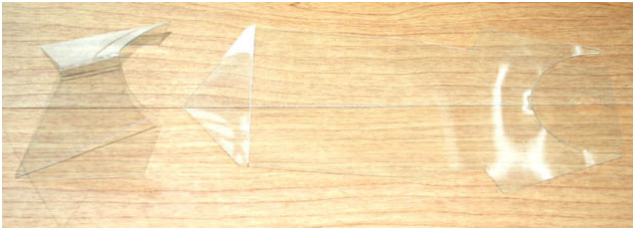
34. Cover side windows with clear film.



30. Glue together with thin CA.



35. Attach instruments panel sticker.



36. Cut and fold clear plastic windshield. (refer to template on the drawing).



37. Glue windshield.



38. Assemble wings again. Enjoy flying!

## ● PRE-FILIGHT CHECK

### CG.

Check CG. (CG location is shown on the drawing.)

### Control Throws.

The following control throws are recommended starting points. After you are familiar with this plane, you may increase, or decrease.

- Ailerons : 16mm(5/8") up, 10mm(3/8") down.
- Elevator : 12mm(1/2") up and down.
- Rudder : 25mm(1") right and left.
- Flaps : takeoff-15degrees, landing-45degrees  
(Set flap-elevator mix if required.)

