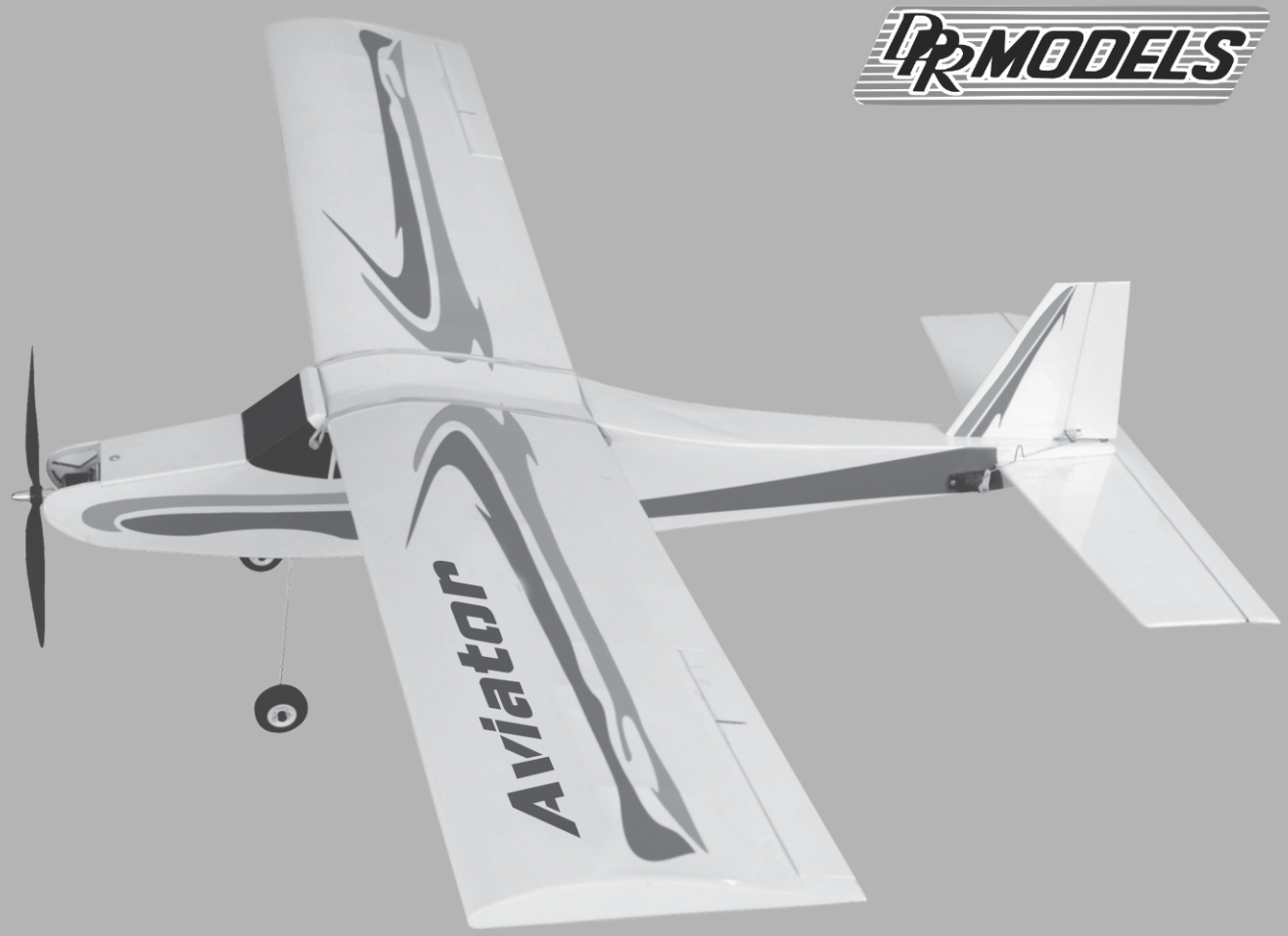
FOLLOW ASSEMBLY INSTRUCTIONS CAREFULLY



Aviator

RADIO CONTROLLED TRAINER MODEL KIT

Thanks for purchasing Aviator Model Airplane Kit and welcome to the exciting hobby of building and flying model airplanes. All parts are accurately cut and make assembly of the model a breeze. The parts are accurate but there may be slight variation in the plan due to printing process, in such a case you need to rely on accuracy of parts.
Enjoy building and flying the model.

Specifications:

- Wing Span: 1190 mm
- Wing Area: 22dm sq.
- Length: 780 mm
- Flying Weight: 650g
- Motor Required: 2212 W/30A ESC

Pay special attention to this symbol!

⚠ IMPORTANT

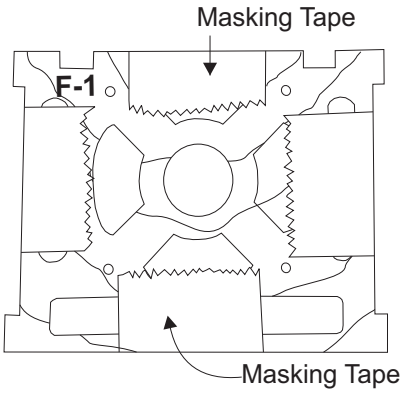
AIRPLANE ASSEMBLY

Kit Parts Familiarization

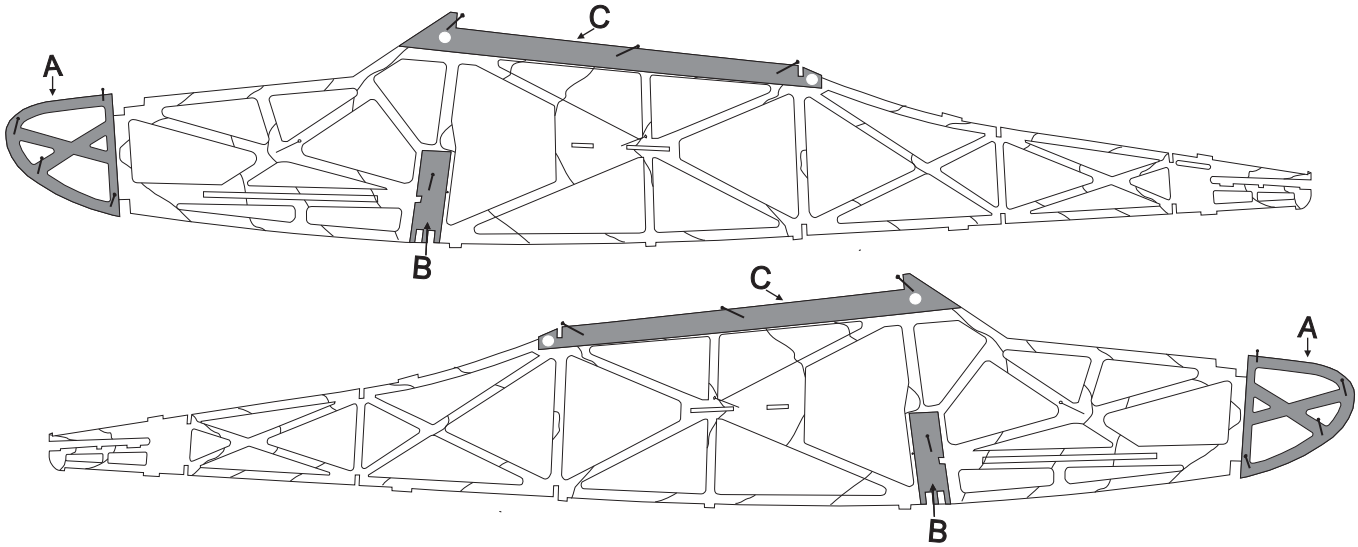
Before commencing assembly of the Aviator kit, study and & identify placement of different parts according to plan.

1 Fuselage

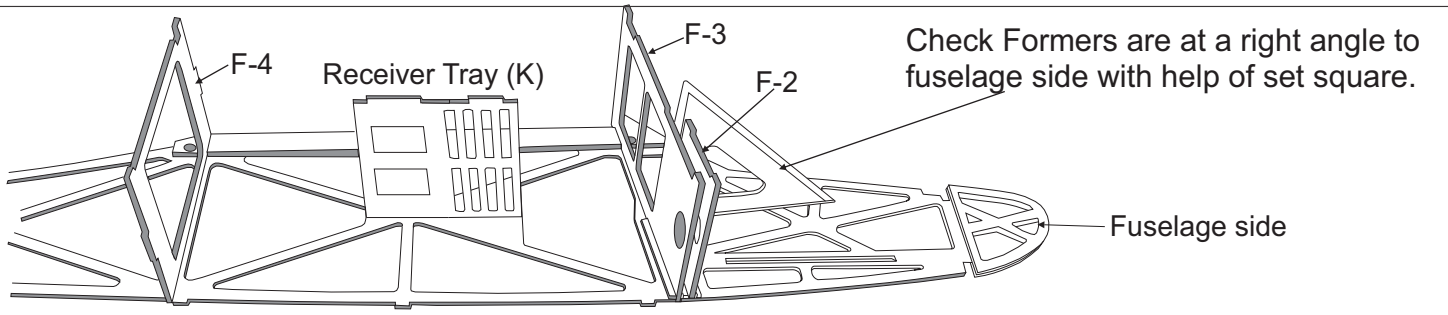
Remove fuselage parts from appropriate Ply and Balsa Panels, cut tabs holding parts to panels, lightly sand the tabs to level them off. Join two F-1 Formers together with white glue and hold them in place with masking tape, place these under weight for equal pressure. See below:



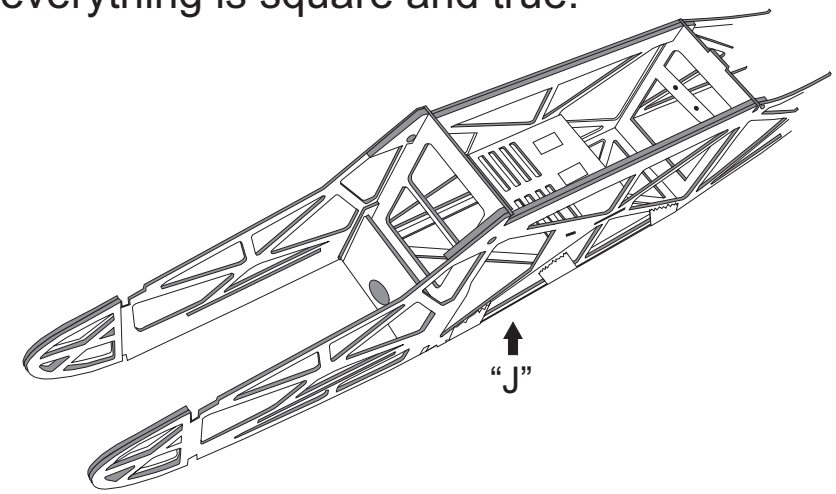
Cover the Building Board with plastic sheet, and glue Doublers, A, B and C precisely on to the fuselage sides. Make one left and one right side Fuselage. Hammer pins or thin nails through these doublers to hold them in place. Move to next step once Glue is dry:



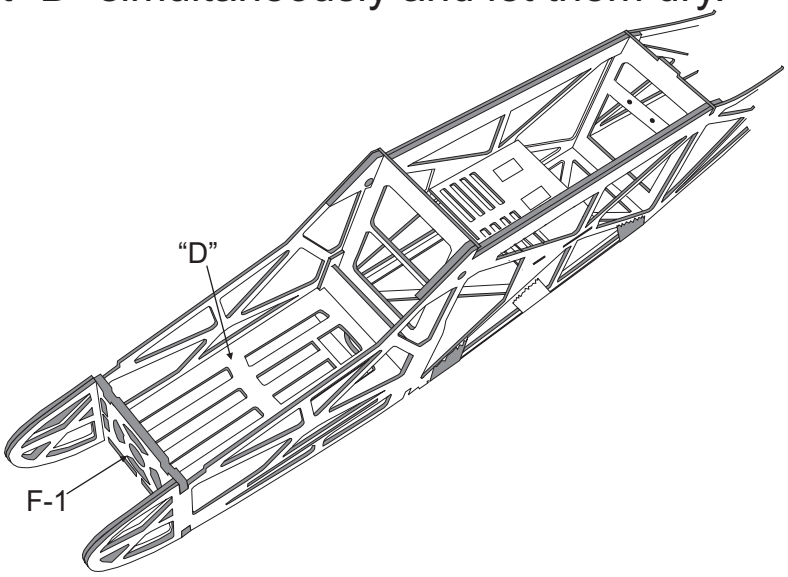
Epoxy F-2, F-3, F-4 and servo tray “K” to fuselage side make sure these are placed at right angles to the fuselage side. Note details on next page:



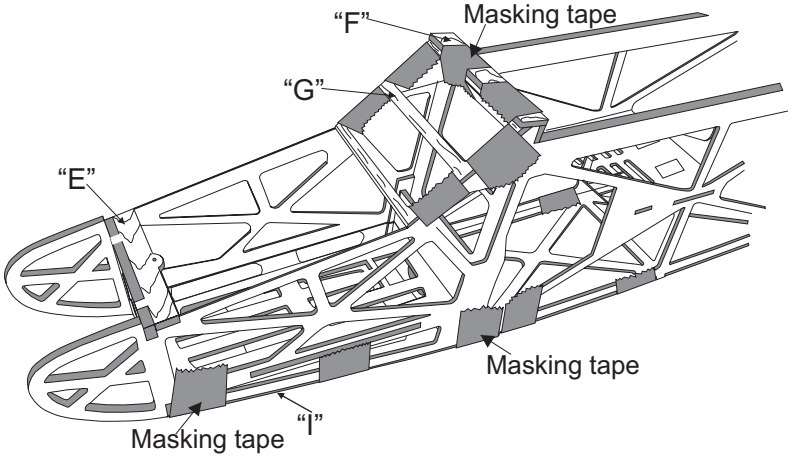
Next ,epoxy the two sides together. Glue Bottom part “J” in position and make sure everything is square and true:



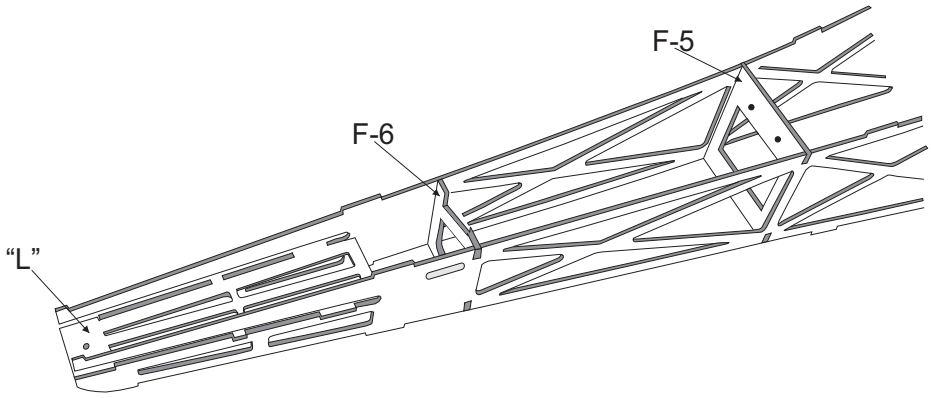
Glue F-1 and part “D” simultaneously and let them dry.



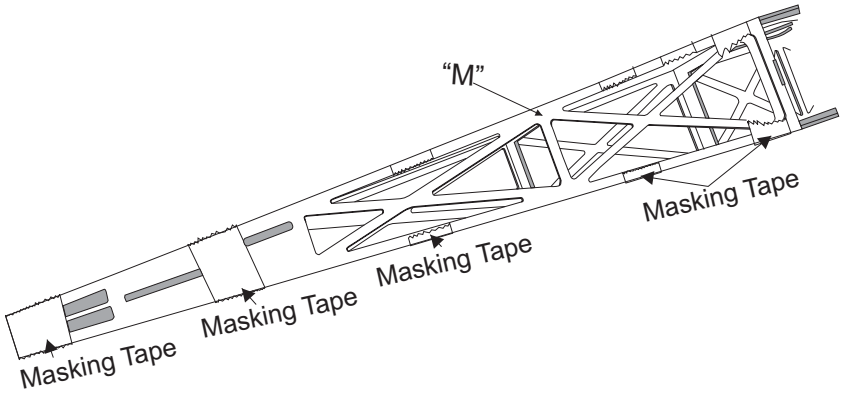
Glue bottom part “I” and retain in position with masking tape, next glue upper part “E” secure in place with masking tape. Bevel edges of cabin front parts “G” and “F” as shown in full size plan before gluing.



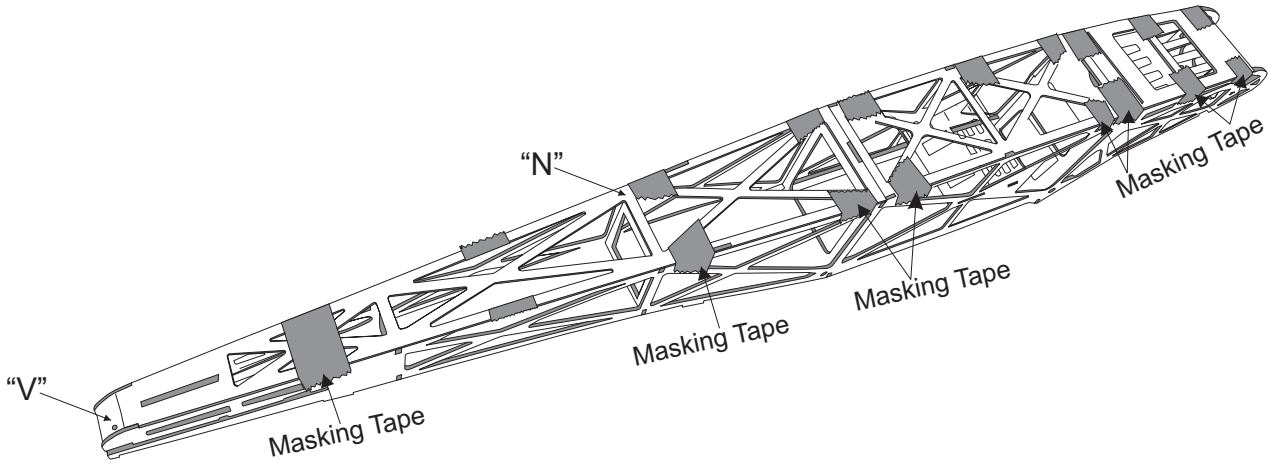
Glue formers F-5, F-6 and stab support “L” in place, making sure the fuselage is straight and not curved like a banana.



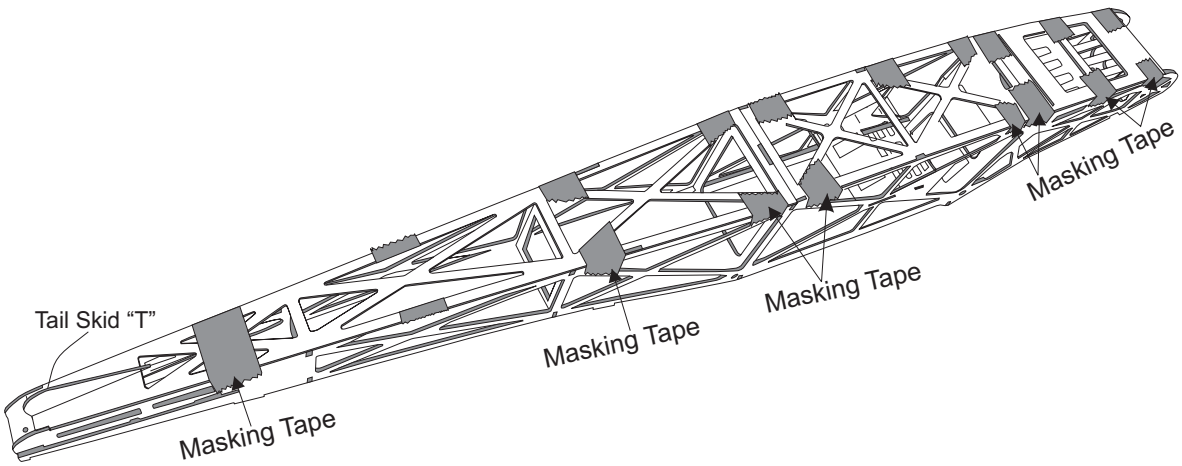
Glue upper sheeting “M”, hold in place with masking tape



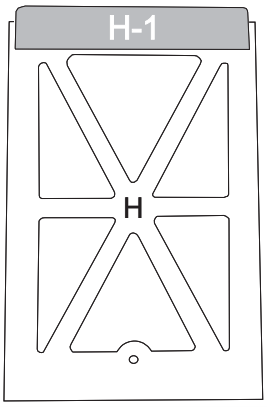
Glue “V” at rear and glue bottom sheeting “N”, secure with masking tape:



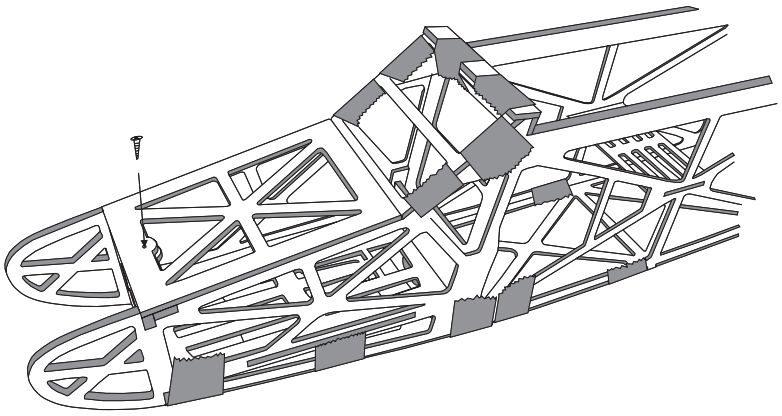
Glue Tail Skid in place.



Glue part H-1 to battery cover "H" on the location marked:



Fix Hatch "H" to fuselage with screw.

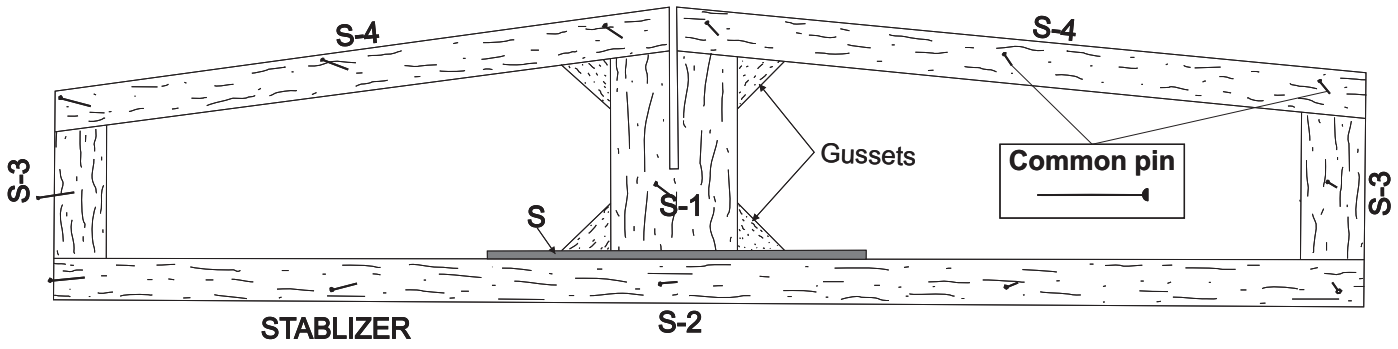


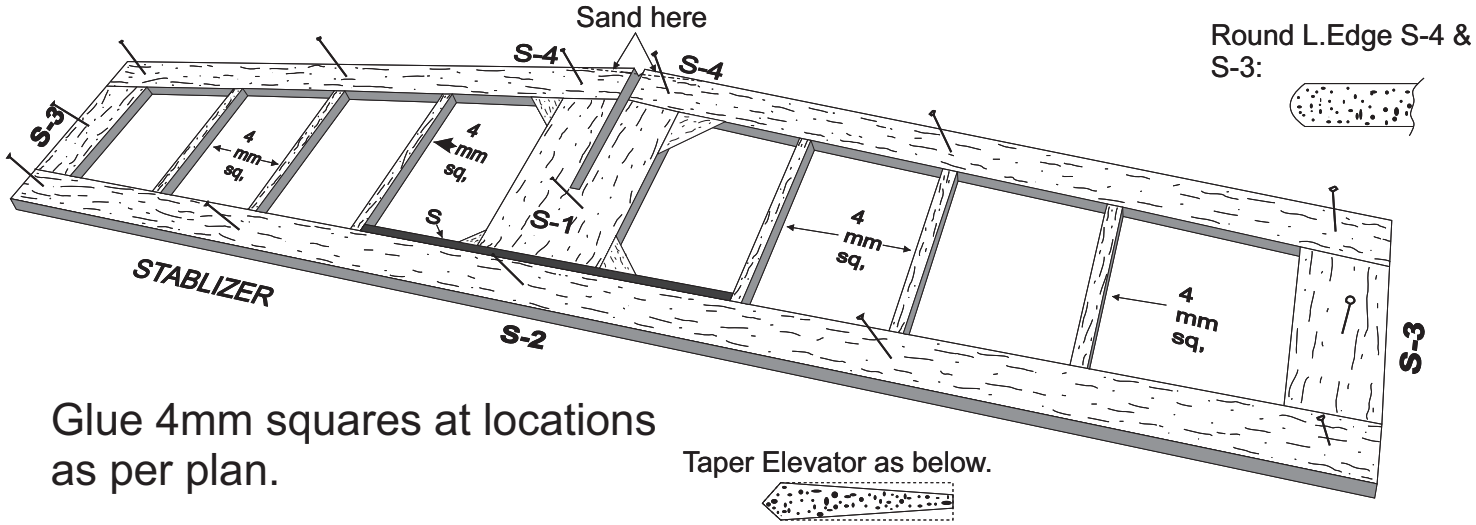
Remove masking tape from entire surfaces and lightly sand fuselage with #320 emery paper, sanding fuselage corners round, including cabin battery hatch. Next insert rudder & elevator pipes in fuselage according to full size plan. Fuselage is now ready to cover.

2 Horizontal Tail

Cover Stabilizer/Elevator portion of plan with plastic sheet so that parts do not stick to plan. The stab is built directly on plan gluing relevant parts in place & securing them with common pins.

Pin up Part S-1 precisely on the plan, next glue 3mm plywood reinforcing strip "S" followed by gluing S-2, S-3, S-4 & gussets in





Round L.Edge S-4 & S-3:

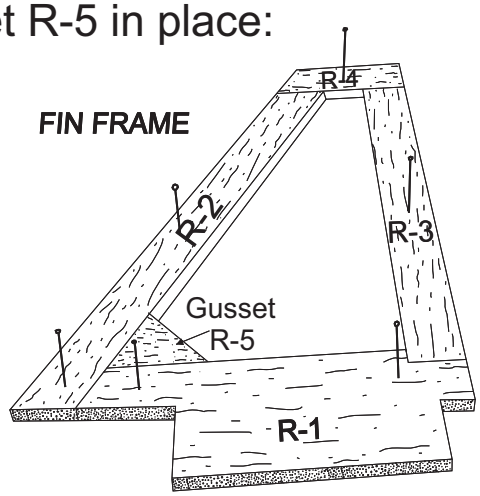
Glue 4mm squares at locations as per plan.

Taper Elevator as below.

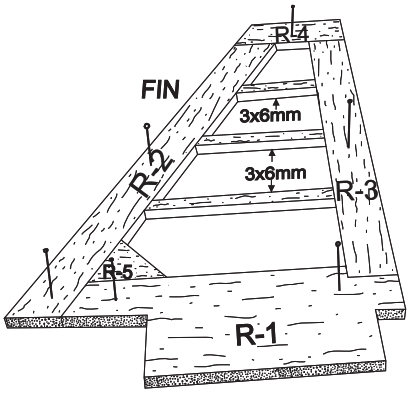
Lay stab flat on building board, smooth sand the entire stab frame from both sides with a sanding block. Round off leading edges of S-4, round off the S-3 sides as well. Do not round Trailing edge S-2. Sand Elevator to taper at both sides. The Stab and Elevator are now ready for covering.

3 Fin & Rudder

Cover Rudder and Fin portion of the plan with plastic sheet. Fin is also built over the plan using common pins to hold parts. Glue R-1 to R-4 along with Gusset R-5 in place:



Next glue 3x6mm balsa Laser Cut strips inside the fin frame.
Once glue is dry, remove fin from the plan and lay it flat on building board, lightly sand smooth both sides of FIN with sanding block. Round off leading edge R-2 and top of the Fin. Smooth sand rudder R-6. Fin and Rudder are now ready for Covering.

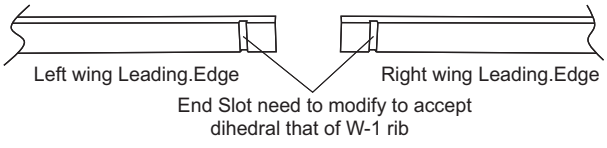


4 Wing Assembly

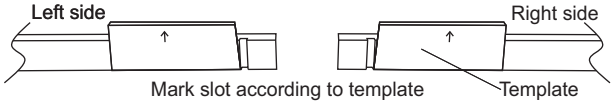
IMPORTANT

Cover Wing part of the plan with plastic sheet. Wing is built in two halves, a left and a right side. Leading and trailing edges included in the kit make one set for right and the other for left wing, take care of correct orientation otherwise slots may mismatch the plan. Before assembling wing, modify Leading and Trailing Edges to allow for tilt in W-1 Rib:

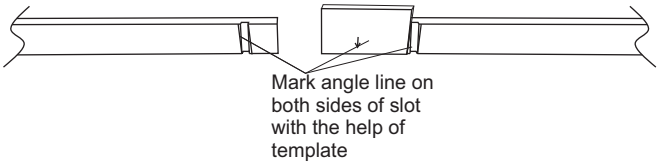
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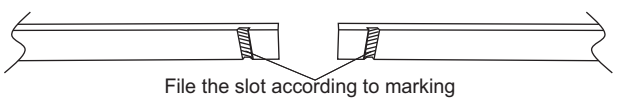
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3

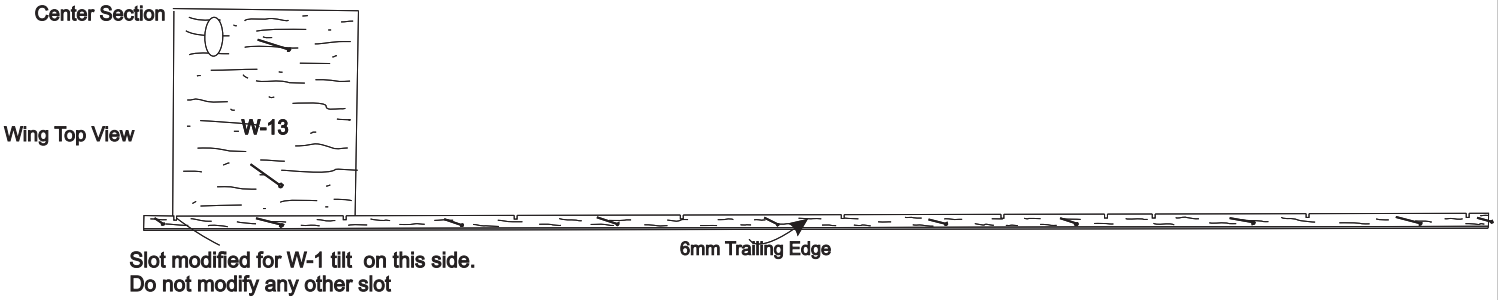


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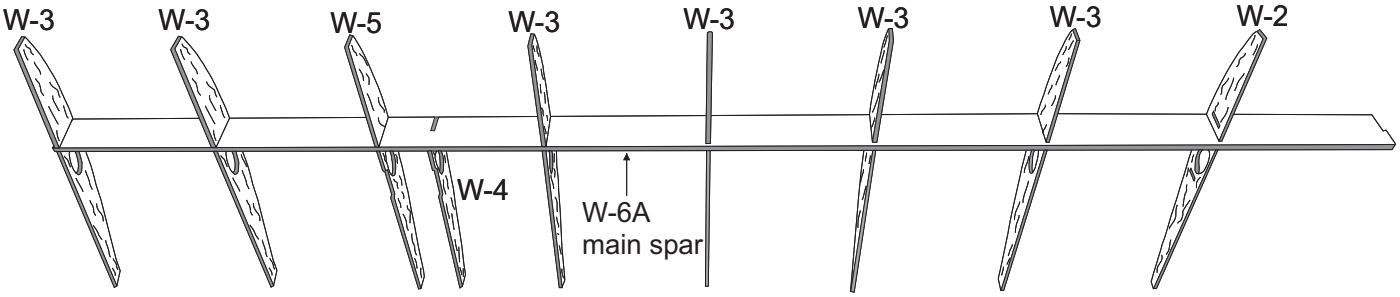


Modify slot for tilt on trailing edge using the same method as used for Leading Edge.

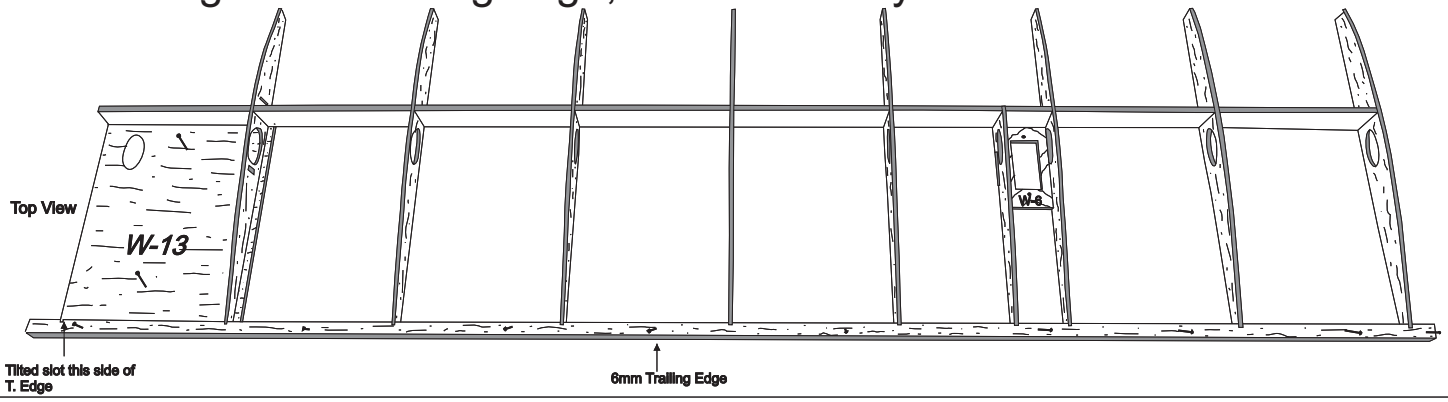
Pin up 6mm Trailing Edge on plan. Next glue and pin up W-13 balsa sheet.



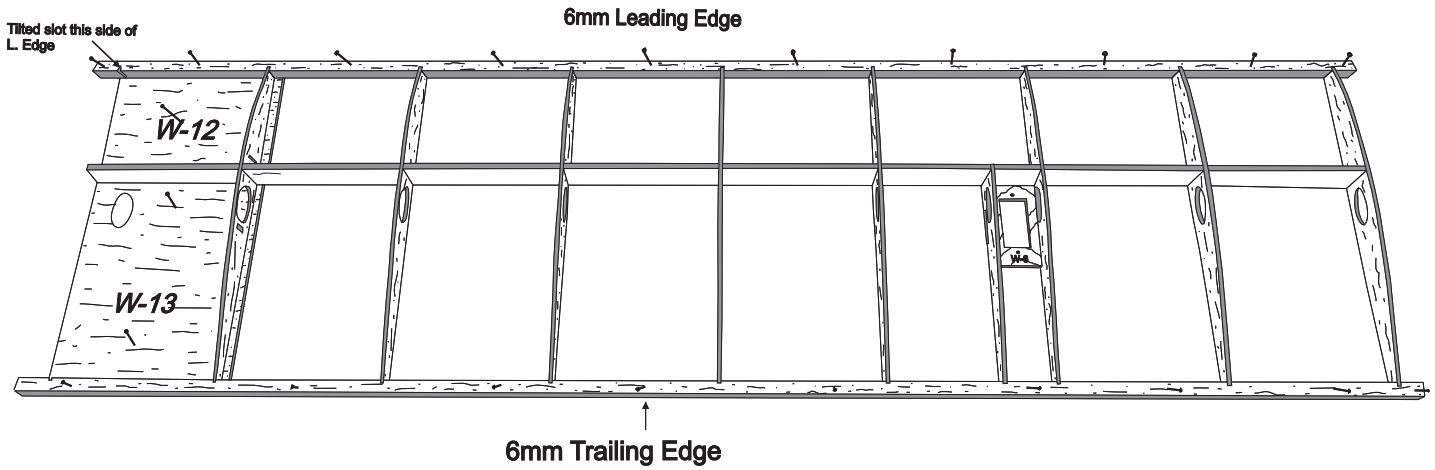
Apply white glue to the main spar and insert ribs W-2 to W-5 in correct sequence onto the W-6A main spar. See picture below:



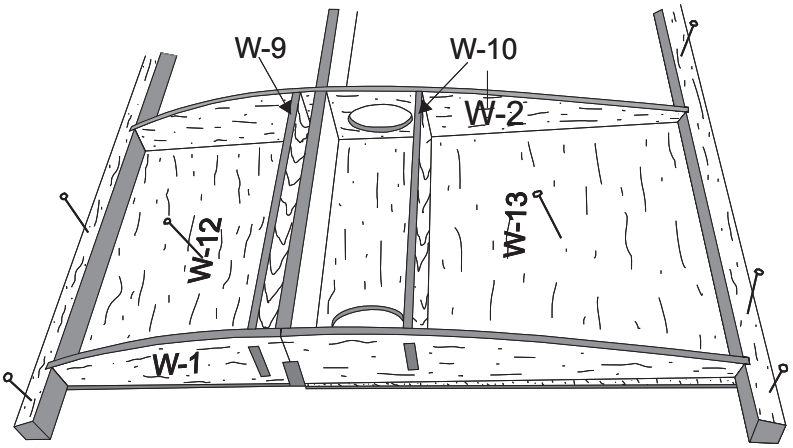
Position Main Spars/Rib Assembly on the plan gluing carefully the rear end of Ribs in slots of 6mm Trailing edge, glue servo tray W-6 in place. Ribs are a tight fit in trailing edge, insert carefully.



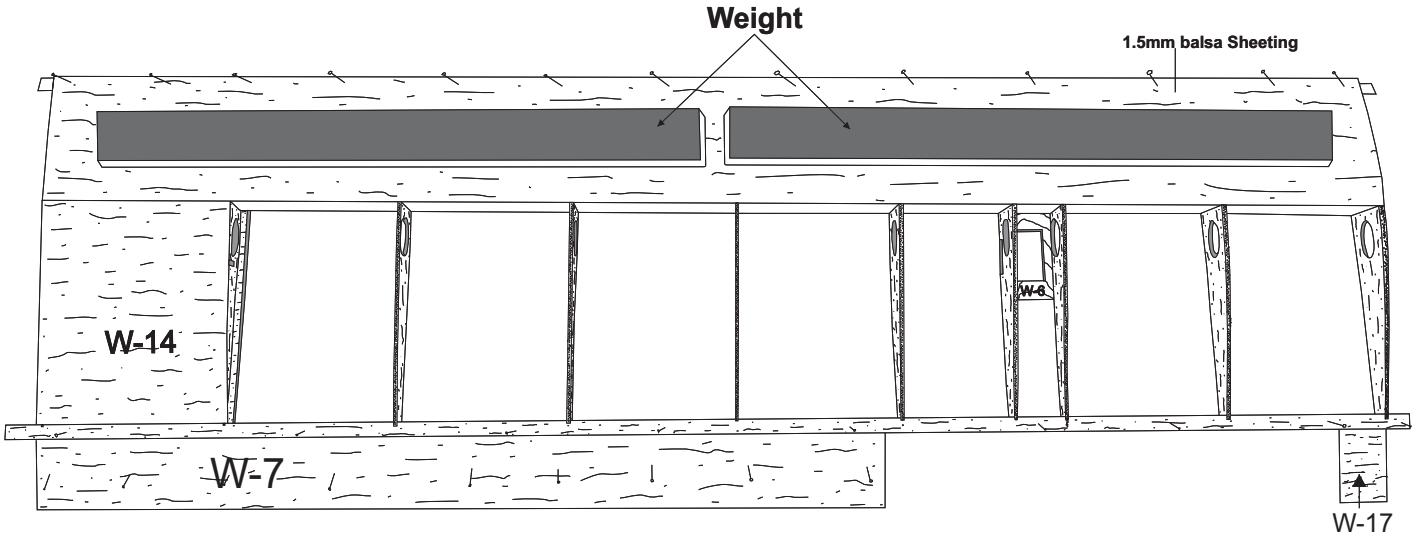
Glue Leading Edge to ribs while inserting in slots. Glue W-12 in place:



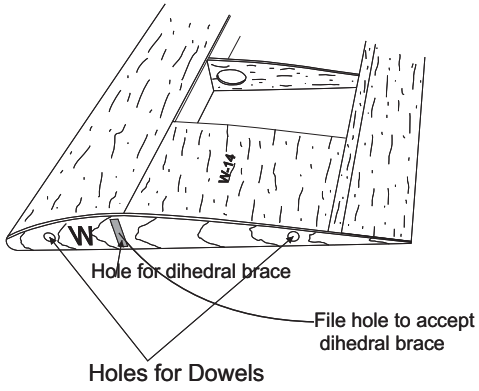
Glue W-9 and W-10 ply parts and glue Rib W-1 in place. Note W-1 is tilted at an angle.



Glue 1.5mm Balsa sheet to the front section of wing, holding the sheet in place with help of common pins, masking tape and weight , Next glue center top sheet W-14. Glue W-7 & W-17 in place.

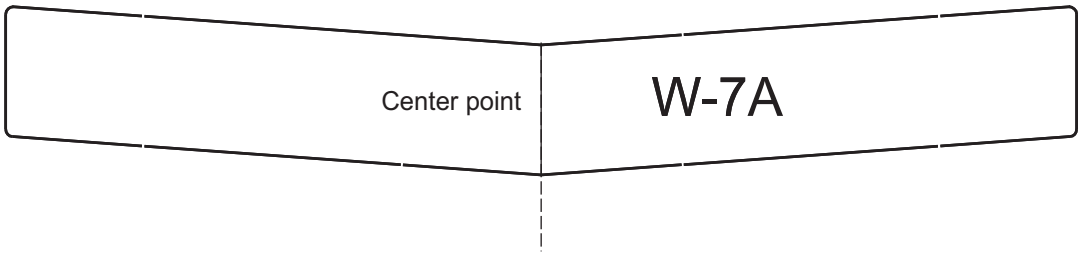


When dry, remove wing assembly from building board, and sand the protruding leading and trailing edges flush at wing tip and center section. Glue center section ply Rib “W” in place. Next file the slot in the Ply Rib “W” to accept Dihedral Brace.



Repeat to assemble second side of the wing. Carefully sand the entire wing halves for smoothness, sand Leading edge to shape as shown on full size plan.

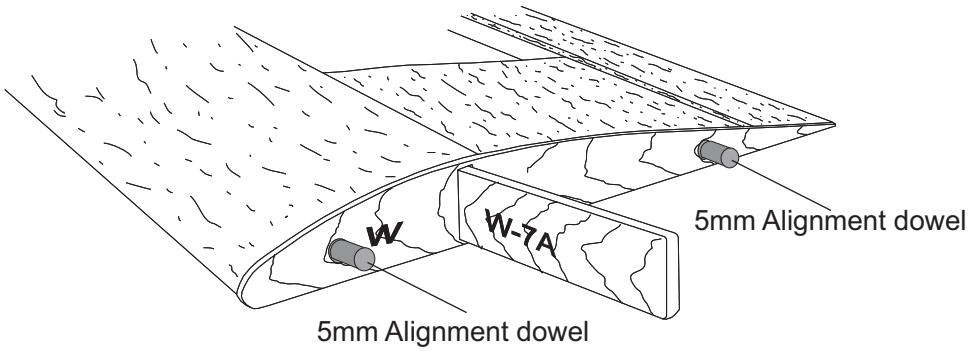
Full Size



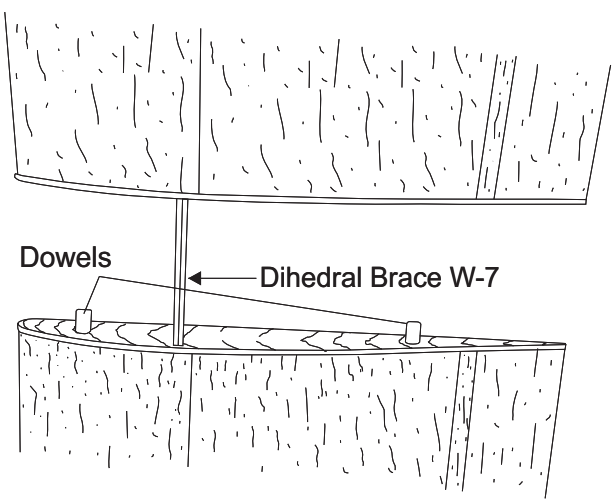
Mark center line on W-7A dihedral.

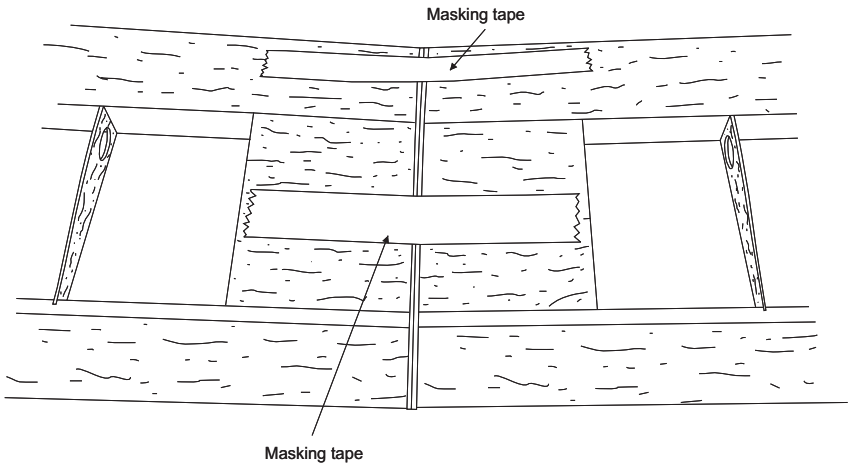
Joining Wings:

Mix 5 minute epoxy and spread it on half portion of Dihedral Brace W-7A, insert the brace immersed with glue into wing, ensuring center line mark on dihedral brace is barely visible. Epoxy 5mm alignment dowels, half immersed in wing. Clean any excess glue.



Mix slow setting epoxy, spread liberally on center section rib “W” of both wing panels, dihedral brace and dowels. Carefully join two wing panels together ensuring dihedral brace and the dowels enter smoothly in their respective locations. Secure wing panels together with masking tape.

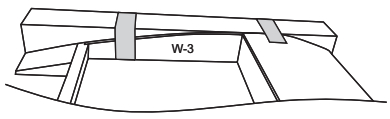




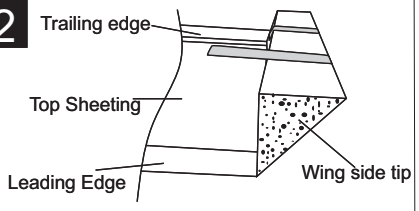
Tips Installation:

Add tips to wing ends.

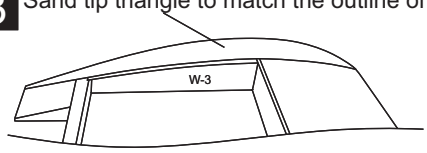
1 Glue triangle wing tips aligning with top edge of W-3.



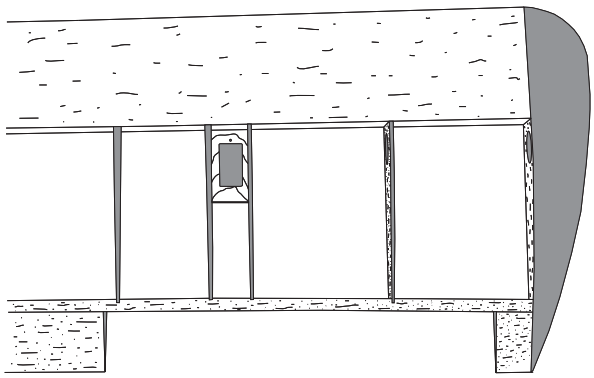
2



3 Sand tip triangle to match the outline of rib



Front view of tip installation

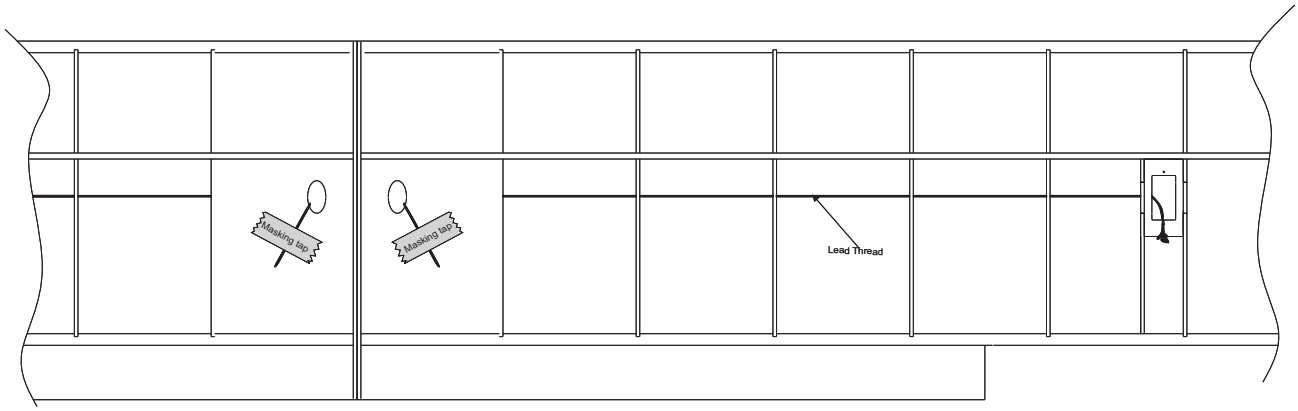


Wing is now ready for covering.

5 Covering

⚠ IMPORTANT

Before covering wing, pass a lead thread through rib holes one end tied to W-6 servo tray & other end held with masking tape. While covering make sure the lead thread remains in place.

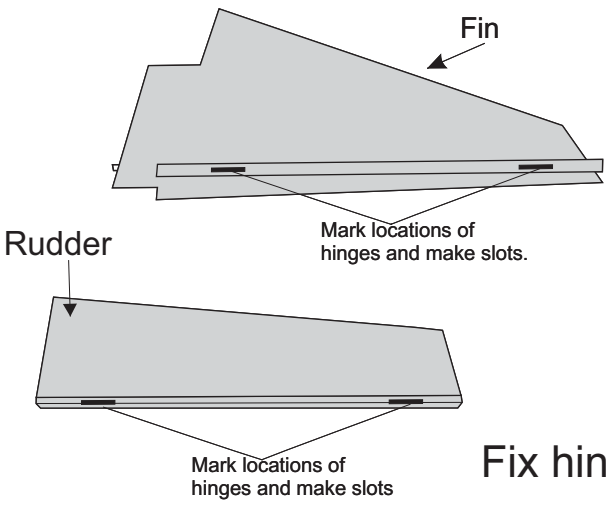


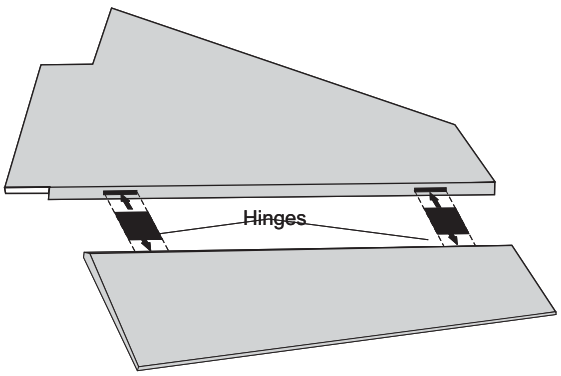
Use any popular pre-finished iron-on covering. All iron-on covering materials include detailed step by step instructions on how to apply they should be applied. After covering apply window stickers and “AVIATOR” Sticker.

6 Hinging

Once covered, Model is ready for Hinging.

1- Mark hinge locations reffering to full size plan, make slots with a knife that can accept hinge. Use cyno to fix hinges.

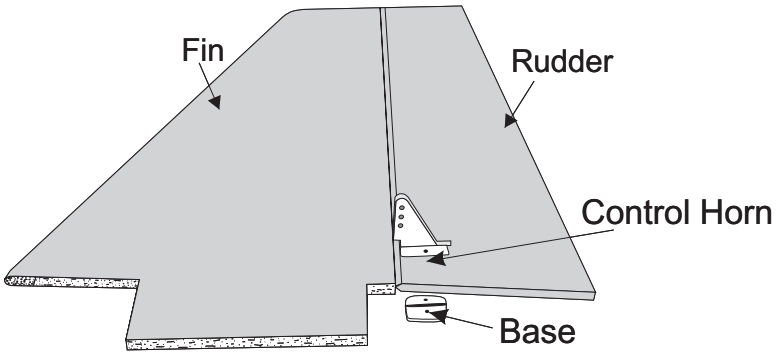




Fix hinges to Stabilizer and Ailerons same way.

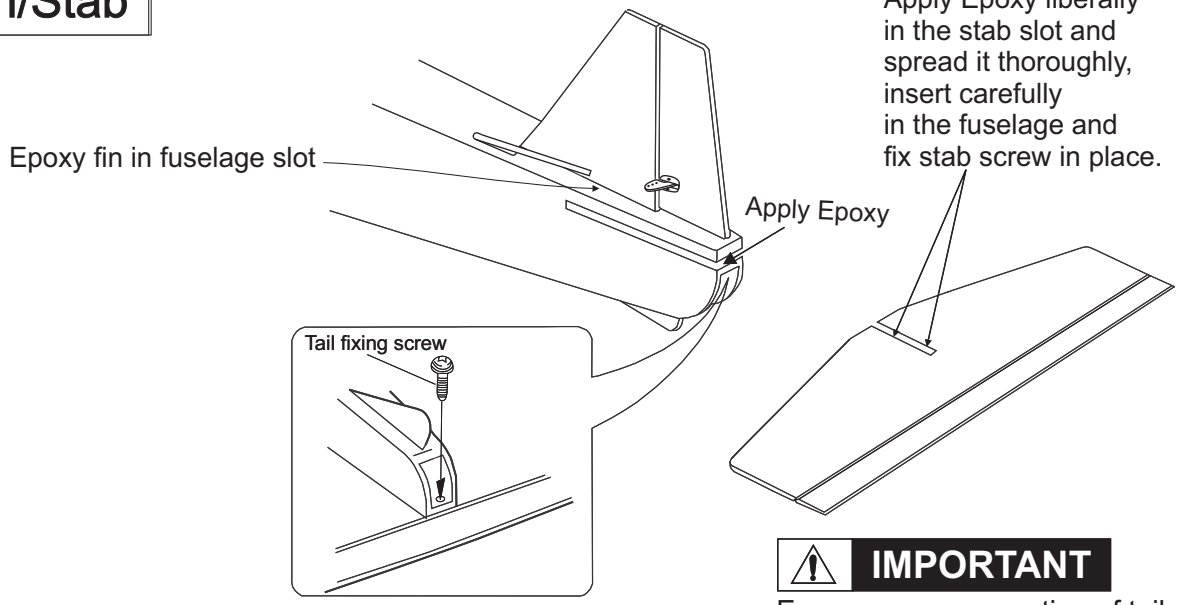
7 Fixing Control Horns

Fix Control Horns to Rudder Elevator and Aileron according to locations marked on full size plan. Fix C/Horn to Elevator and Ailerons using same method.



FINAL AIRPLANE ASSEMBLY

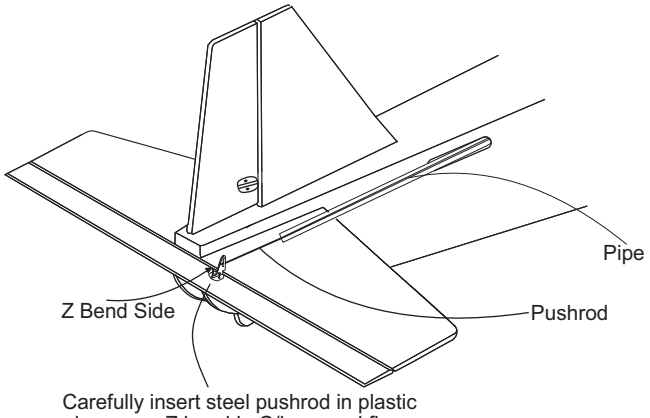
A Fixing Fin/Stab



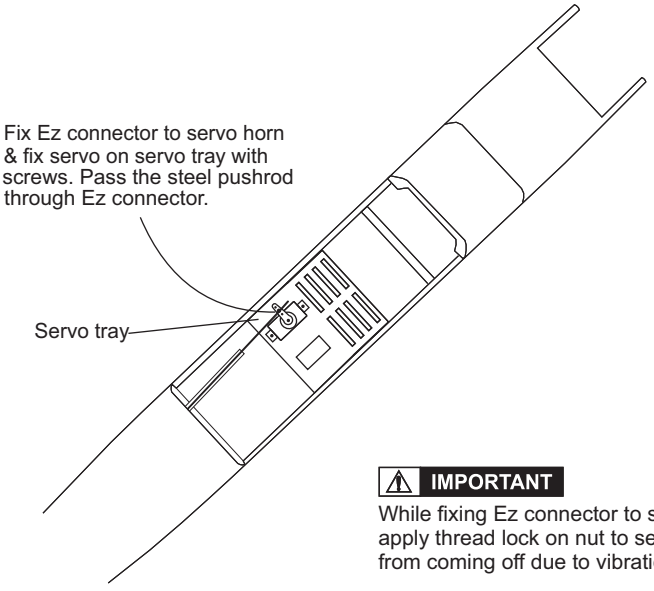
⚠ IMPORTANT

Ensure secure mounting of tail plane, if it comes off during flight this may loose control and result in crash.

B Elevator Servo Linkage



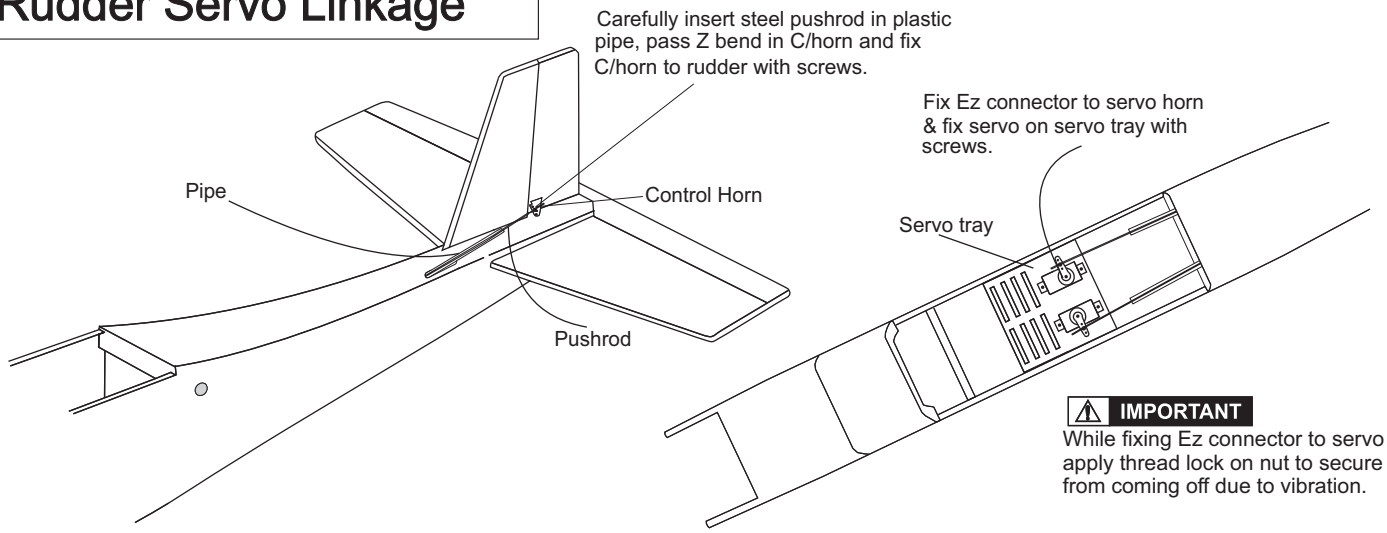
Carefully insert steel pushrod in plastic pipe, pass Z bend in C/horn and fix C/horn to elevator with screws.



⚠ IMPORTANT

While fixing Ez connector to servo arm, apply thread lock on nut to secure them from coming off due to vibration.

C Rudder Servo Linkage



⚠ IMPORTANT

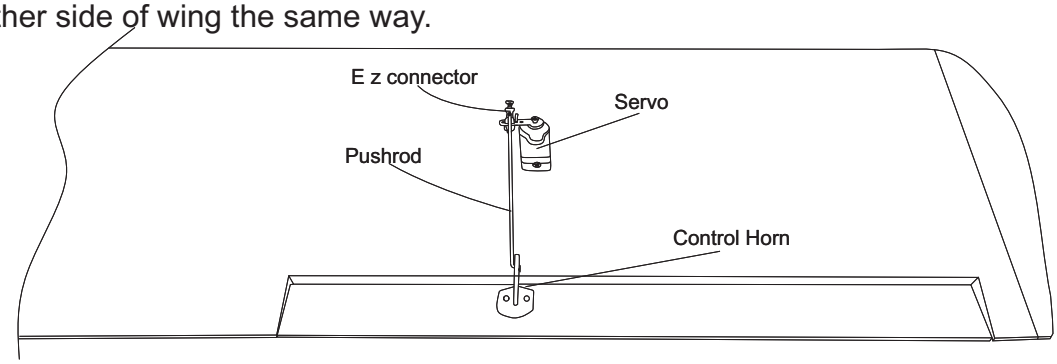
While fixing Ez connector to servo arm, apply thread lock on nut to secure them from coming off due to vibration.

D Wing Servo Fixing

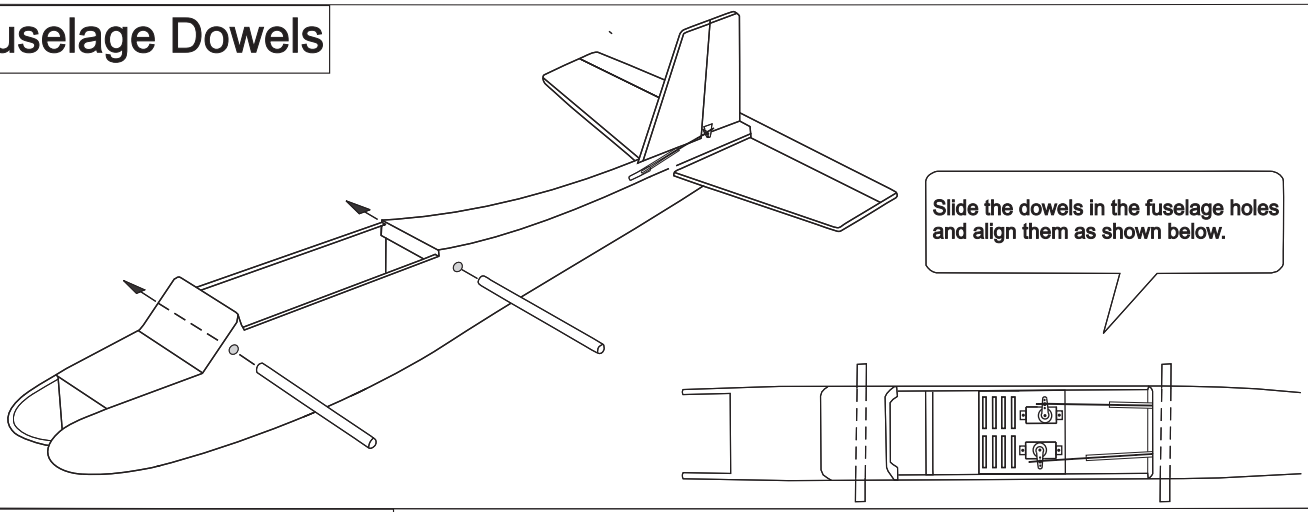
Connect extension lead to servo & route the extension lead to center of wing using lead thread installed earlier, fix control horn and servo with screws.

Install Ez connector, fix pushrod with Z bend side in control horn & other side through Ez connector.

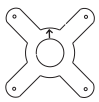
Install servo in other side of wing the same way.



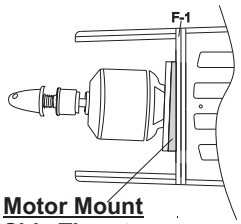
E Fuselage Dowels



F Propeller Installation

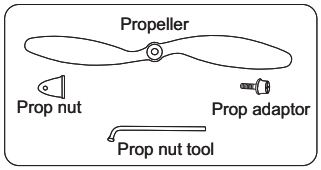


Side thrust shim front view. Epoxy shim with arrow pointing vertical.



Motor Mount Side Thrust:

Epoxy ply Shim on F-1 firewall. Fix motor on this shim to allow for right thrust.



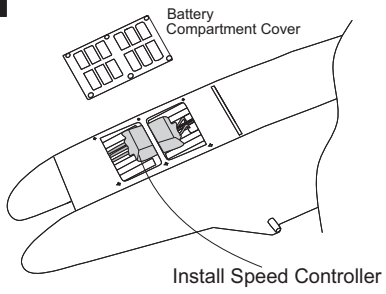
⚠ IMPORTANT

Tighten prop nut with the propeller tool in clockwise direction. Make sure prop is securely tight otherwise it may come off while rotating and may cause injury.

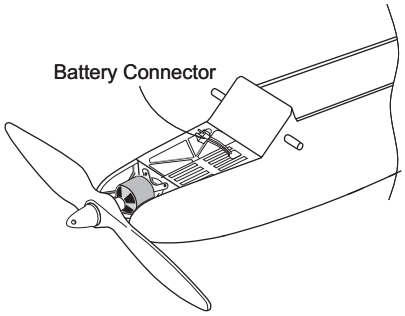
G Speed Controller Installation

Install speed controller under battery compartment. Attach 3 ESC wires to motor, route battery connector to battery compartment and receiver lead to receiver compartment, fix plastic cover to the compartment.

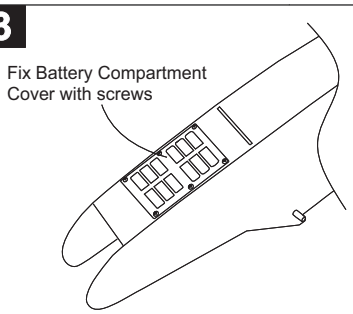
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2



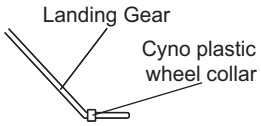
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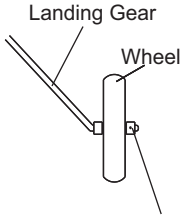
H L/Gear Installation

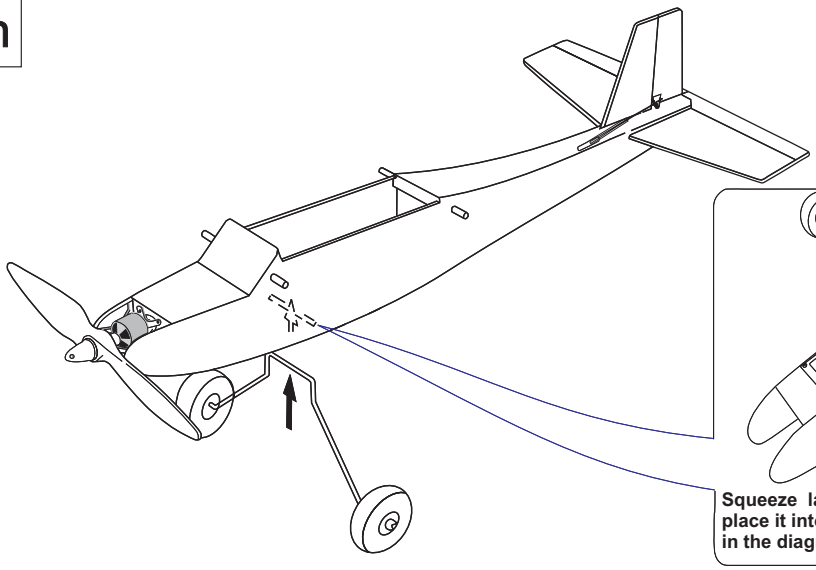
Wheels Installation

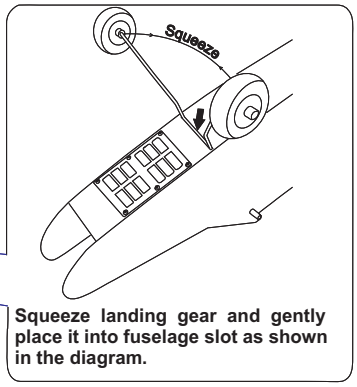
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2

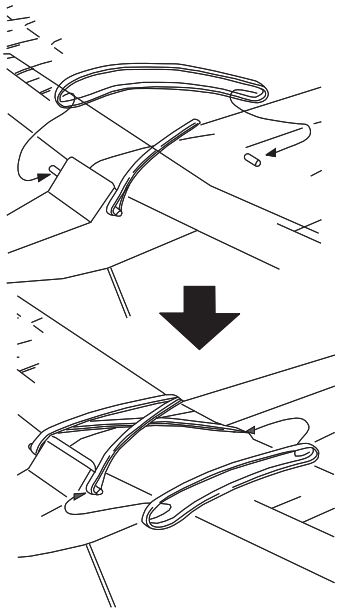




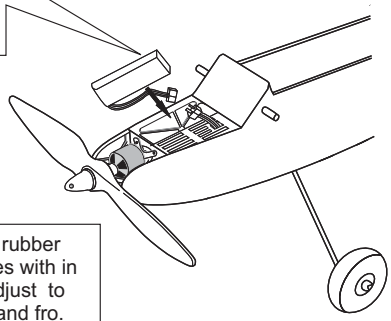


Squeeze landing gear and gently place it into fuselage slot as shown in the diagram.

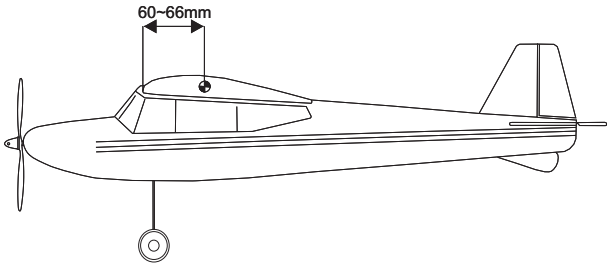
I Wing Installation



Place Battery inside the battery compartment, do not connect the battery terminals as we need to check the center of gravity (C.G).

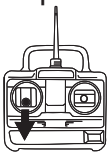


Attach the Wing to the fuselage with rubber bands. Next check if the airplane balances with in the Center of Gravity range, you can adjust to balance by adjusting battery position to and fro.



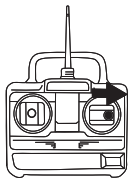
J Throttle Position

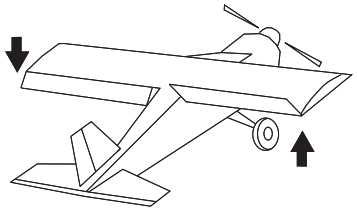
Bring throttle to down position, and all trims to neutral position. Switch transmitter on and connect receiver battery. You will hear one beep, followed by three more beeps, throttle is armed. Once throttle is activated please keep clear of propeller spinning path, as it may cause accident.



K Aileron Movement

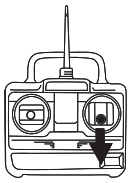
- Pull aileron stick to right side and when you stand behind the airplane, right aileron will go up and left aileron will go down.

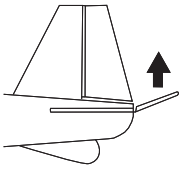




L Elevator Movement

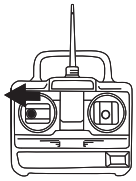
- Pull elevator control stick on the transmitter and the elevator will move upwards.

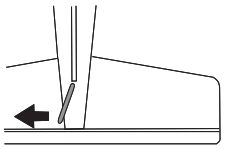




M Rudder Movement

- Move rudder control stick to left & rudder will move to left.



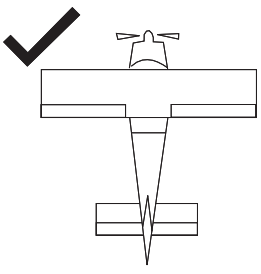


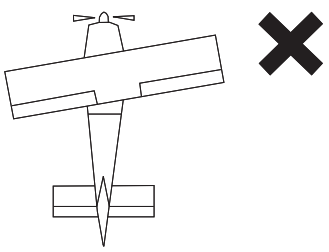
N Charging Lipo Batteries and Precautions

- Charge battery with compatible charger .If at any time during charging or while using the battery you note battery swell, stop using/charging battery, do not use or store this battery dispose off the battery properly. Do not try to disassemble defective battery as it may lead to accidents.
- Never leave battery unattended while charging. Make sure battery rests on some inflammable medium. Do not over-charge batteries.
- Never leave the battery in full charge condition for more than 2-3 days. You need to discharge the battery to 2.3-3.8 volt per cell for storage.
- Lipo batteries are easily damaged by heat , store them in a cool and dry place. While charging/using Lipo battery always monitor battery for overheating. If battery temperature rises let it cool down before placing it to charge.

O Wing Affixing

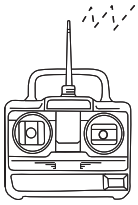
- Wing should be securely attached with rubber bands.

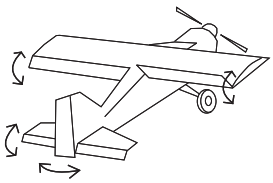




P R/C Check

- Before switching transmitter on bring the throttle stick to idle position.
- Move sticks on your transmitter and check all control surfaces move according to your inputs.

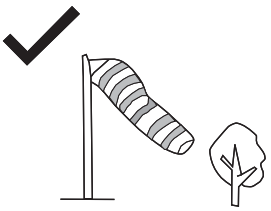


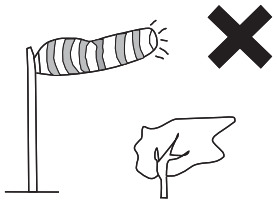


Q Flying Pre-notes

First time flyers should seek guidance from experienced flyers. You may also gain some pre-flight practice on a simulator, available from your hobby shop. Select large enough open space for your first time flight, away from spectators. Do not fly near populated areas.

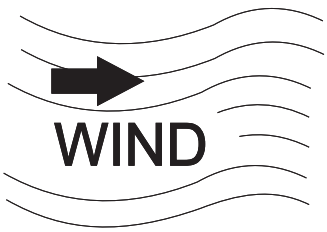
- Do not fly in strong wind conditions.

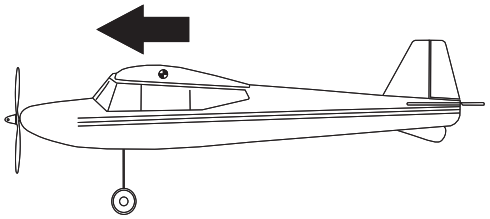




R

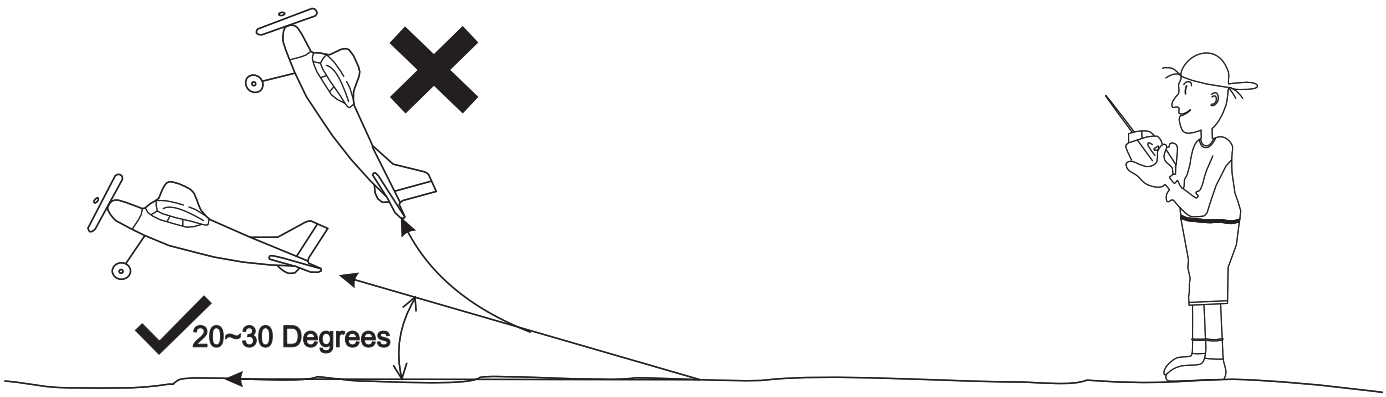
- Always take-off and land into the wind.





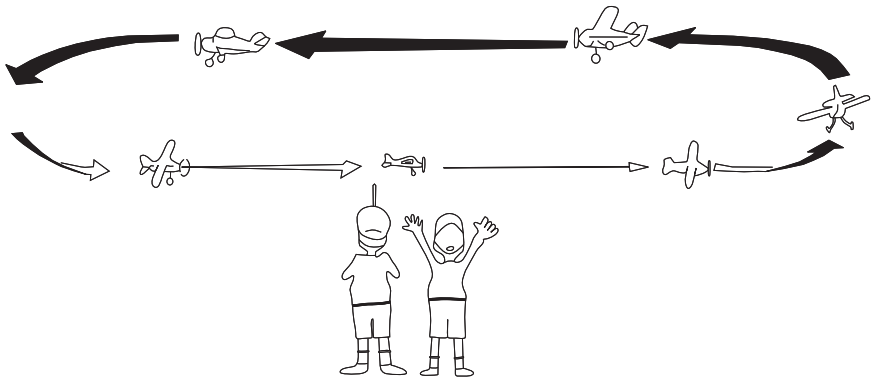
S Take Off

- Give full throttle for take off, and pull the elevator stick gently for a smooth take off.



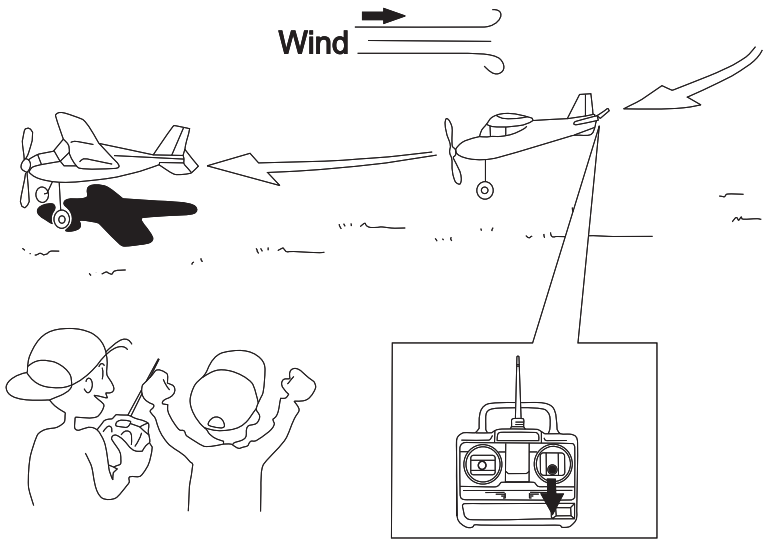
T Flying

- When the model gains altitude reduce power to 3/4, and trim plane for a straight and level flight. Practice initial flying in a left hand circuit.



U Landing

- For landing reduce power and bring to landing area in straight and level position. Before touch down give slight up elevator.



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