



PilotRC Trainer

USER MANUAL



Introduction

- Thank you for purchasing our Trainer plane. we strive to achieve a good quality quick build ARF aircraft .
- It requires the least amount of assembly of any ARF kit to obtain the maximum performance.
- Both the design and manufacturing have been undertaken to the highest standards, using best quality hardware, covering, wood & glue during factory construction stage.
- We hope that every effort and service we offer will, in turn, give you confidence using PILOT Models.
- Have a wonderful time flying your 3D aircraft in a suitable safe space!

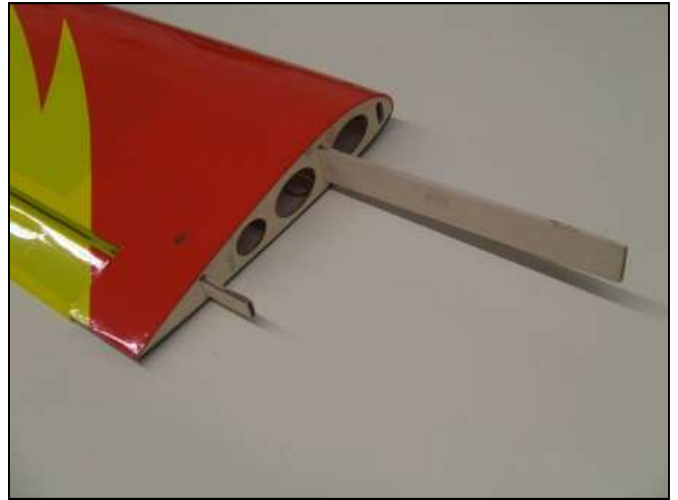
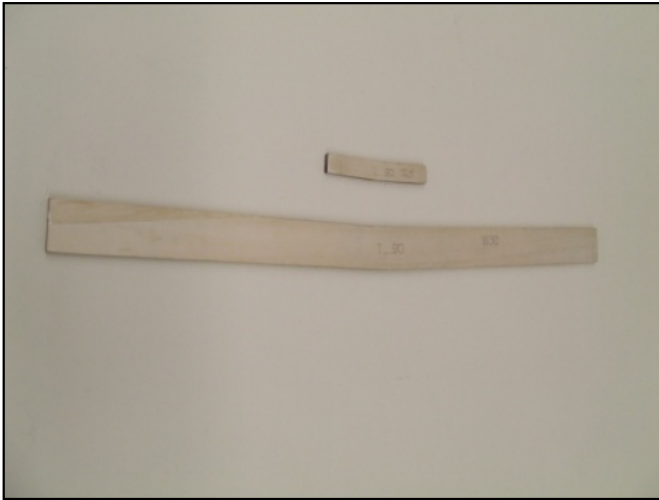
Warrant

- All Pilot-RC products are guaranteed against defects for 30 days of receiving your airplane. This warranty is limited to construction or production defects in both material and workmanship , it does not cover any component parts damaged through use or modification .
- The manufacture cannot supervise the assembly, operation or maintenance, and is not responsible for radio malfunctions. Please ensure your radio system is in good condition. **We are not responsible for any accident or damage while using this product.** It is impossible to determine for certain whether crash damage was the result of improper installation of our products, a radio system failure, or pilot error. Model airplane owners use our products at their own risk.
- Pilot-RC will not be liable for any costs, unless agreed and proved beyond doubt the failure was due to faulty materials or fabrication. Any agreed cost will not exceed the cost of the airframe and not include engine, radio equipment or third party claims.
- Should you wish to return a product or receive replacement parts, all shipping cost must be paid by the customer.

Attention

1. **Do not regard this plane as a toy!**
 2. To ensure safety, please read the instruction manual thoroughly before assembly.
 3. Building and operating an RC Plane of this nature requires previous experience and competence to an experienced level. This plane is not for a beginner!
 4. If you are in doubt have an experienced pilot at hand. Diligent practicing and correct guidance is essential, accidents can cause bodily harm and property damage.
 5. Seek assistance from an experienced person or airplane model clubs in assembly, operation and maintenance to ensure successful training.
 6. **Fly only in a registered RC model club airfield** that is approved by your local Academy of Model Aeronautics (AMA).
- Pilot-RC has the right to revise the plane, the instructions and the limited warranty without notice. If you have any problems and questions please contact Pilot –RC:
Email: pilot-rc@139.com , info@pilot-rc.com
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Preliminary Wing & Stab Assembly



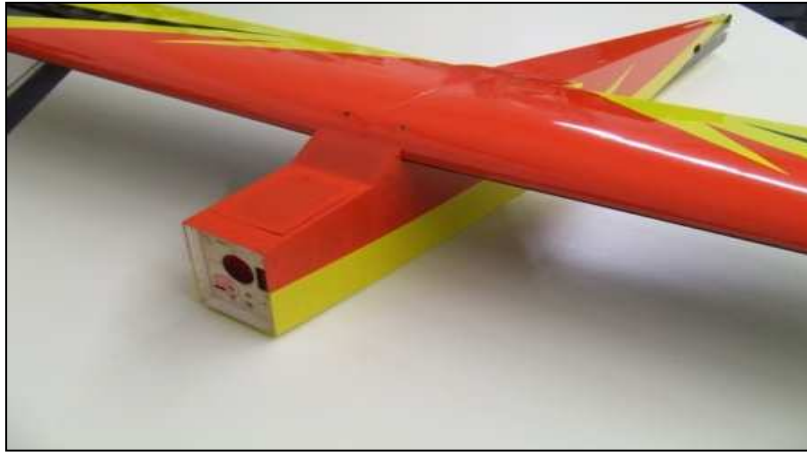
Locate both Plywood wing joiners (Large and small one)

Insert both wing joiners inside one wing panel.

Slide the other wing panel over the plywood joiners.

Bring both wing panels together and verify for proper fit.

Preliminary Wing & Stab Assembly

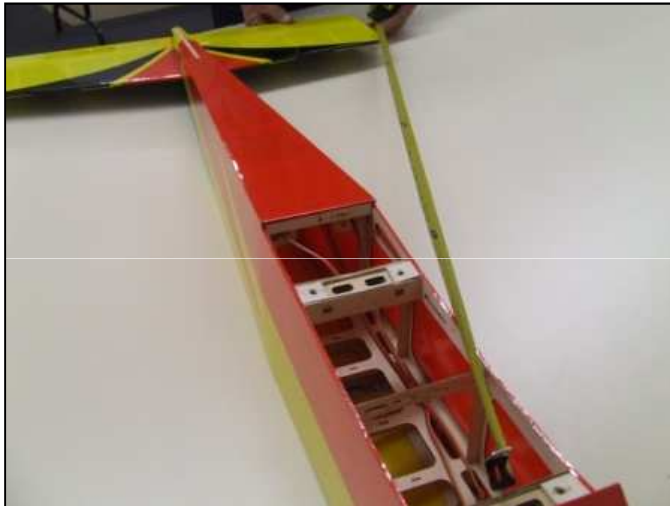
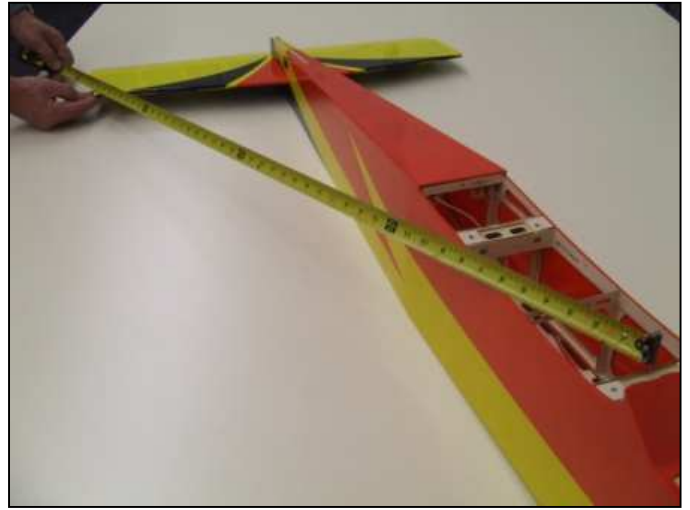


Fit the complete wing over the fuselage as shown.

Locate the 4 wing mounting screws and washers from the enclosed hardware bag.

Insert the 4 screws and washers in the pre-cut holes in the wing, securing them into the pre-installed "Blind-Nuts" inside the fuselage.

Preliminary Wing & Stab Assembly



Measure the width of the fuselage and insert a “modeling pin” in the middle as shown.

Insert the stab into the fuselage. Measure from the pin up to the stab tip. See next picture.

Measure from the other side and equally space the stab onto the fuselage.

Once the stab is centered, draw a line on both side of the stab as shown, both top and bottom of the stab.

Preliminary Wing & Stab Assembly



Using a modeling knife, cut along the marked lines and remove the covering.

Repeat on the bottom of the stab.

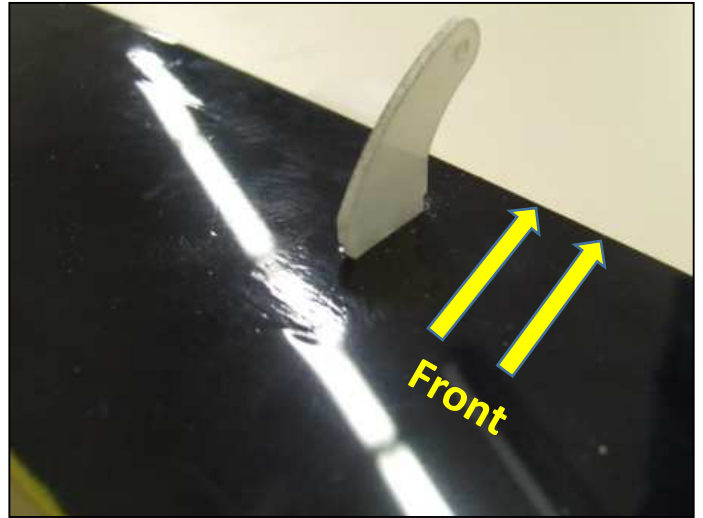
Elevator Control Horn Assembly



Locate the control horns for the hardware bag.

Using a sanding bar, sand the horn section (on both sides) that will be inserted into the elevator for better glue adhesion.

Elevator Control Horn Assembly



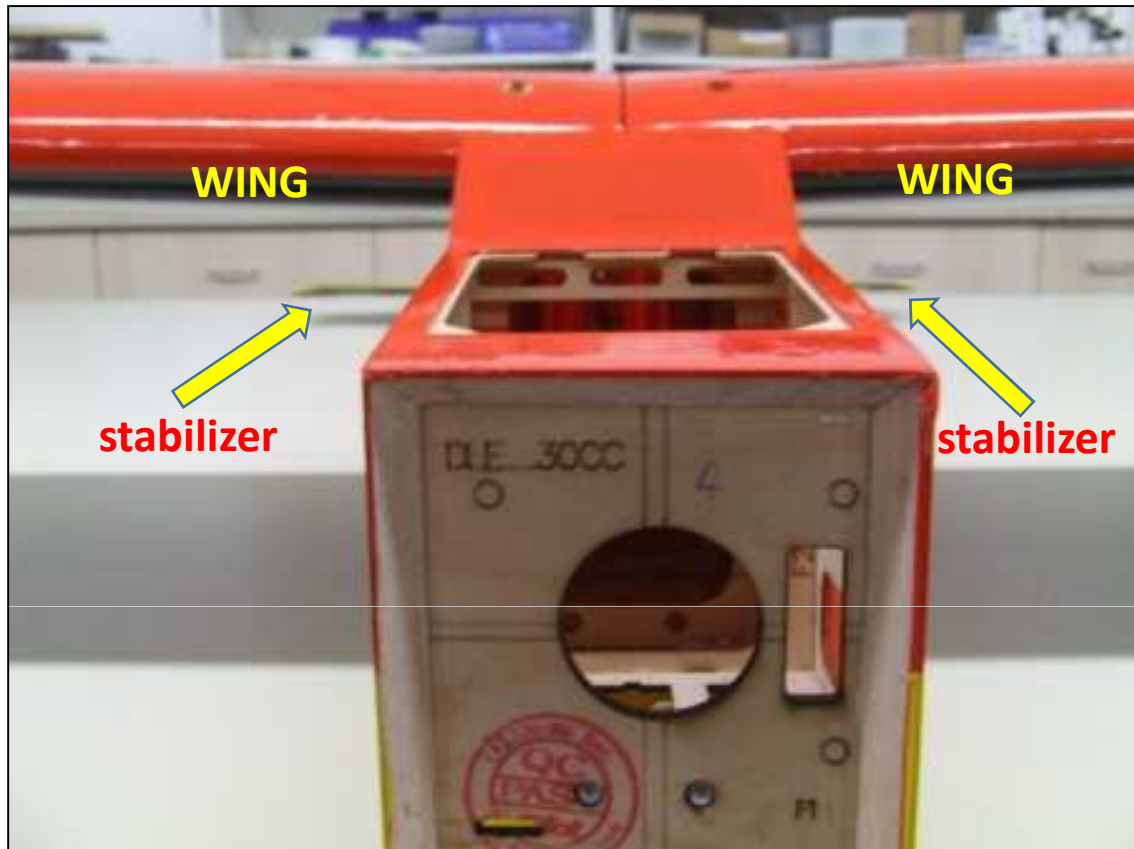
Locate the pre-cut slot on the bottom of the elevator and cut to remove the covering.

Mix some “30-minute epoxy” and glue the elevator horn. NOTE: The horn must face the front of the leading edge of the elevator.

Apply 30-minute epoxy to both the stab and fuselage sections and slide the stab into position.

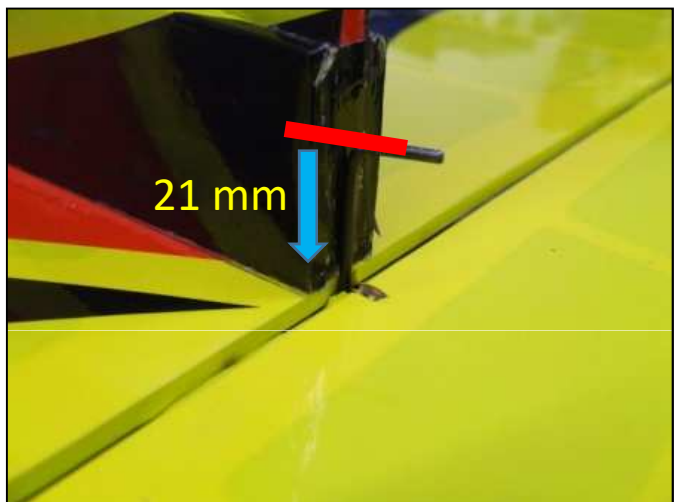
Before the epoxy cures, align the stab by equally measuring from each wing tips as reference.

Elevator Control Horn Assembly



While the epoxy is curing, align the stab to the wing by looking from the front of the fuselage. Adjust if required.

Tail Assembly



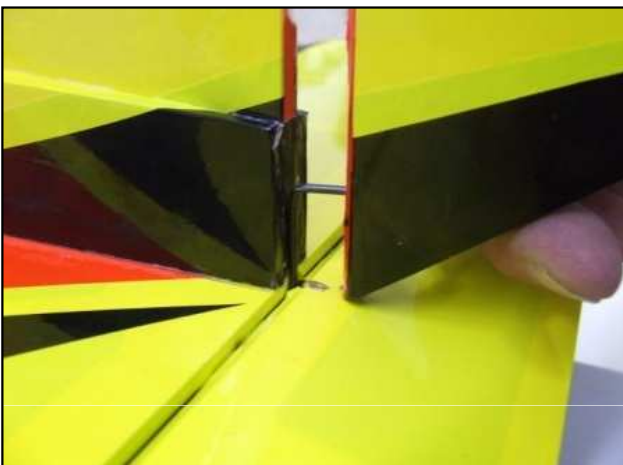
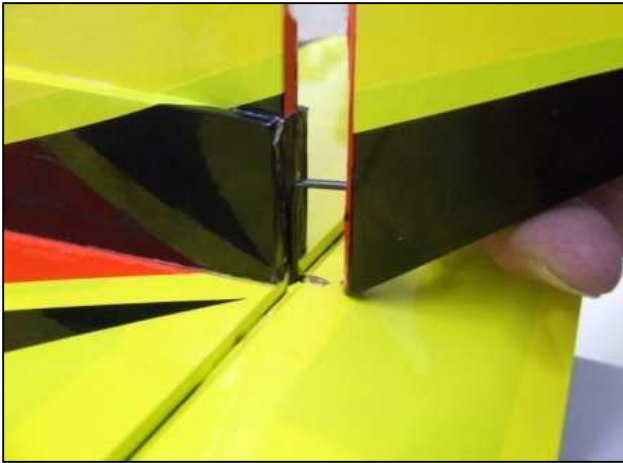
Cut and remove the covering from the bottom of the fin post.

Mix some 30-minute epoxy and apply to both the fin and fuselage inner sections. Secure with masking tape.

While the epoxy is curing, align the fin to the stab at 90-degrees.

You will need to make a 90-degree bend into the steel wire, 21mm from the top of the stab.

Tail Assembly



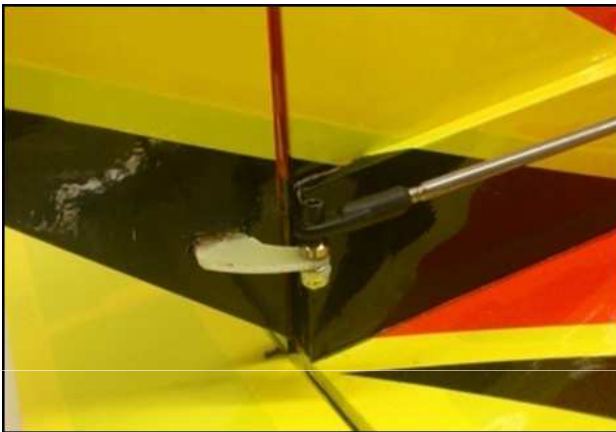
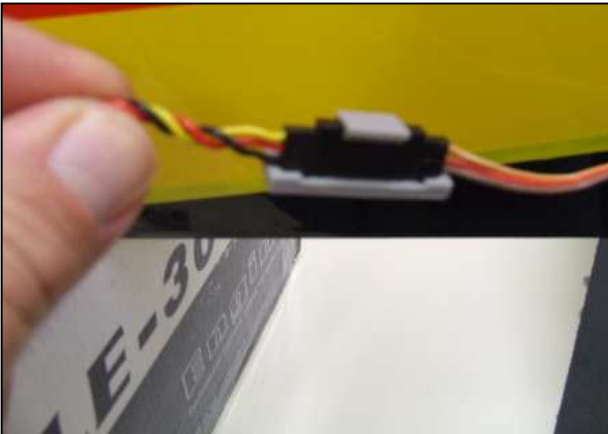
The rudder has a pre-cut slot in its leading edge. Cut and remove the covering and trial fit the steel wire into it.

Insert a pin in the center of each hinge. Insert the hinges in both elevator and stab and push them in position as shown. Then, apply a few drops of "Thin C.A" to each side of the hinges.

Repeat for the rudder but also mix some 30-minute epoxy to bond the steel wire into the rudder.

Repeat the elevator horn installation process for the rudder and bond the rudder horn with 30-minute epoxy.

Tail Assembly



Locate on the fuselage the rudder and elevator servo openings and cut/remove the covering. Plug one servo to each pre-installed servo leads and secure with the supplied servo retainer clips.

Secure the rudder servo to the fuselage with screws and connect the rudder pushrod from the hardware bag (short one) to the servo arm.

Secure the other end of the rudder pushrod to the rudder horn.

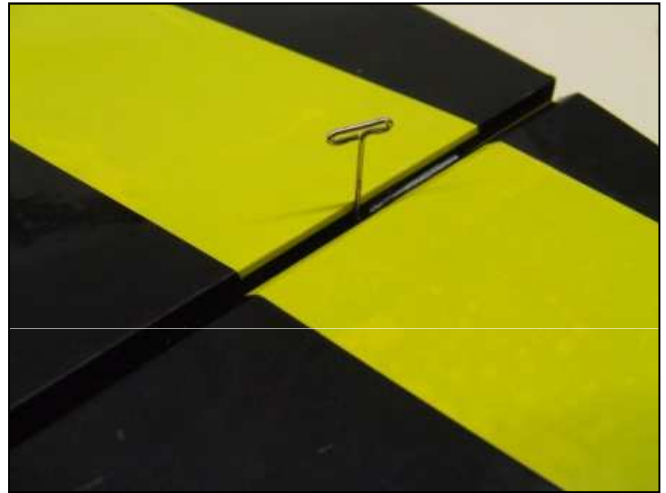
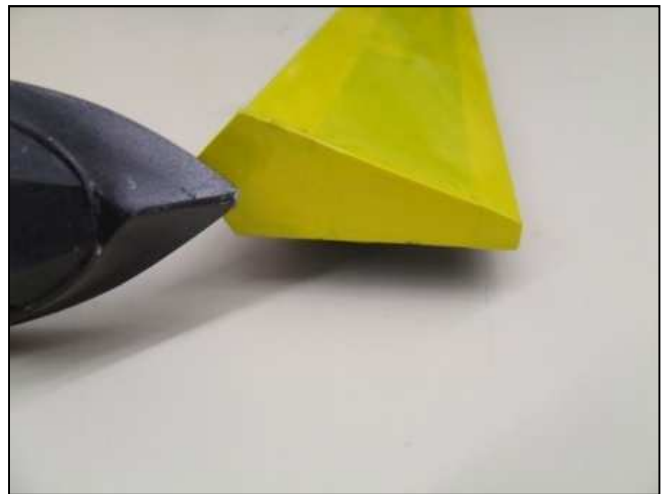
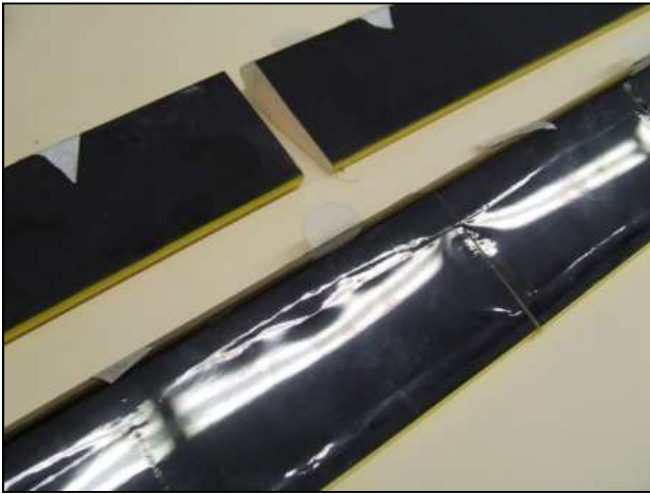
Completed rudder pushrod installation shown here for reference.

Tail Assembly



Repeat the same process for the elevator servo. Use the remaining long pushrod from the hardware bag.

Final Wing Assembly



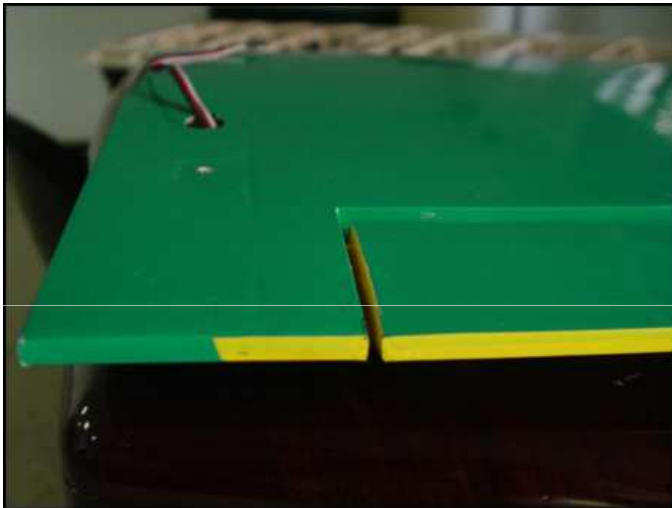
In the middle of both ailerons, there is a location to “split” the ailerons in half. Cut into that section to separate the ailerons from the flaps.

If you choose to do so, simply cover the exposed ends of the ailerons/flaps with the supplied covering material.

Locate the slots in the ailerons/flaps and bond a control horn into each slots using 30-minute epoxy.

Like the rudder and elevator hinges, repeat the same procedure for bonding both the flap and aileron hinges.

Final wing assembly



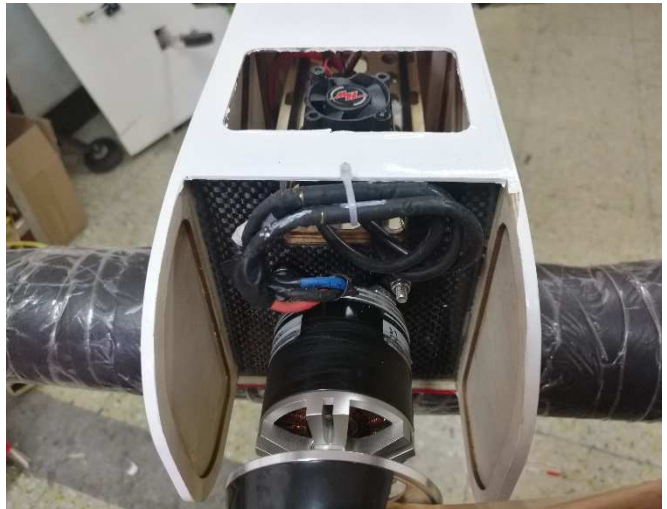
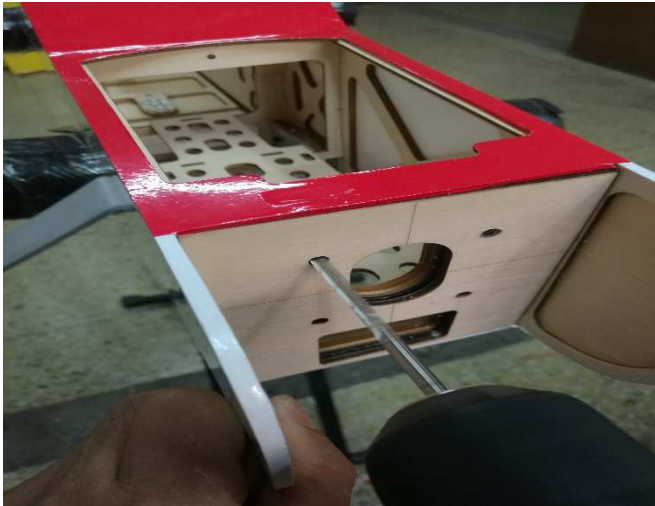
Locate the pre-installed servo lead extension for the aileron and connect a servo to it and one servo retainer clip. NOTE: You will need two optional servo lead for the flap servos.

Connect both flap and aileron servos to their respective horns using the supplied small pushrods.

All servo lead extensions should pass through the pre-cut holes in both wing panels as shown.

Repeat the same procedure for the flap servos.

Motor Installation



To install the motor, you need drilling hole to fit your motor installation plate.

Install the motor and use mounting screws to securing the motor, make sure the motor has been tight with firewall.

Motor / Electric components Installation

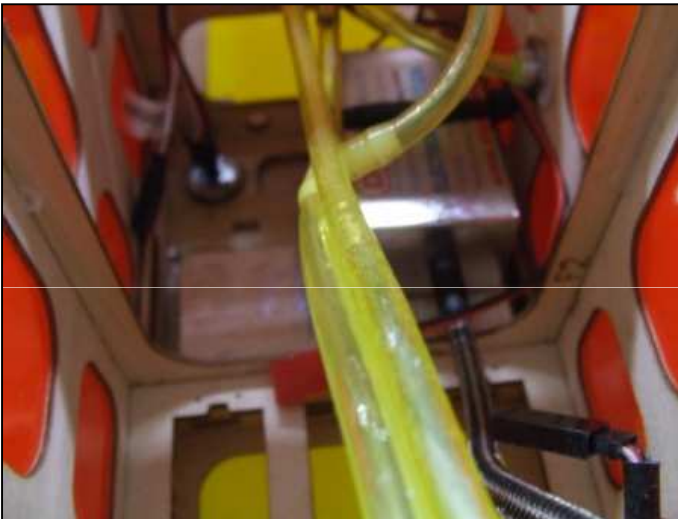


When motor install finished, connect the ESC and motor, for easy connect, we suggest assemble the ESC under the firewall.

Install other electric components.

Suggest install the battery in front the fuselage.

Engine and Fuel Tank Installation



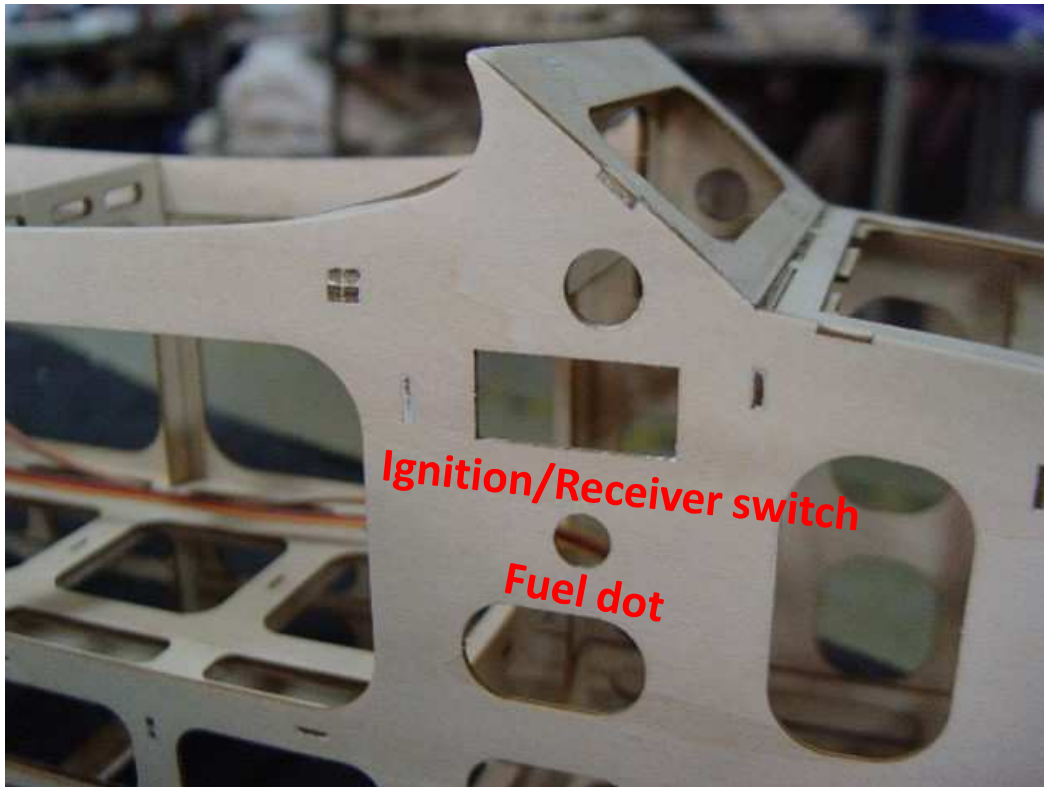
Drill the laser-marked holes on the firewall and install it using the stand-off's that came with your engine.

Install the fuel tank and secure it using the supplied plastic "Tie-Wraps"

Install the engine ignition module. Secure it with plastic Tie-Wraps" to make sure it will not move inside the fuselage.

Install the throttle servo first and pushrod. The ignition battery should be installed using plastic "tie-Wraps" to secure it in place. Secure the removable hatch with two wood screws.

Engine and Fuel Tank Installation

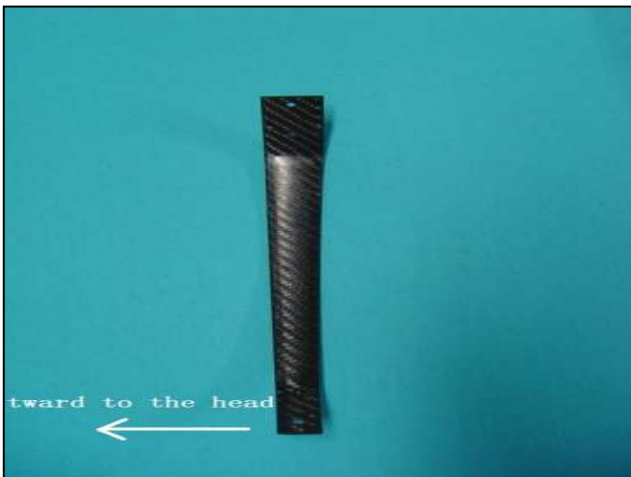
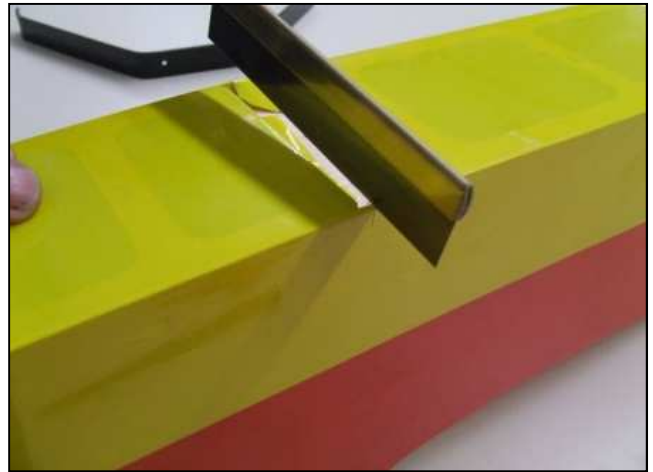


Ignition, receiver switches and fuel dot. Referring to the above drawing, cut the covering over the openings for the 2 switches (Right and Left sides) and 1 fuel dot.



The fuel dot receptacle is fitted to the fuselage . You have to unscrew the fuel line plug to fill the fuel tank.

Landing Gear Installation



Cut the covering from the first gear location (near the firewall)

Using a small saw, cut into both fuselage sides to clear the gear.

Note the direction of the main landing gear when you install it.

Install two the supplied screws and washers in outside hole at the first.

Landing Gear Installation



Put the aluminum block to the middle two holes, Secure with the supplied screws and washers from your hardware bag.

Install one wheel axel on each sides of the gear and insert one wheel collar over the axel



Position the wheels and secure with another wheel collar.

Trigear Installation (optional)



Note the new CF version trainer come with two Nylon nose gear support.



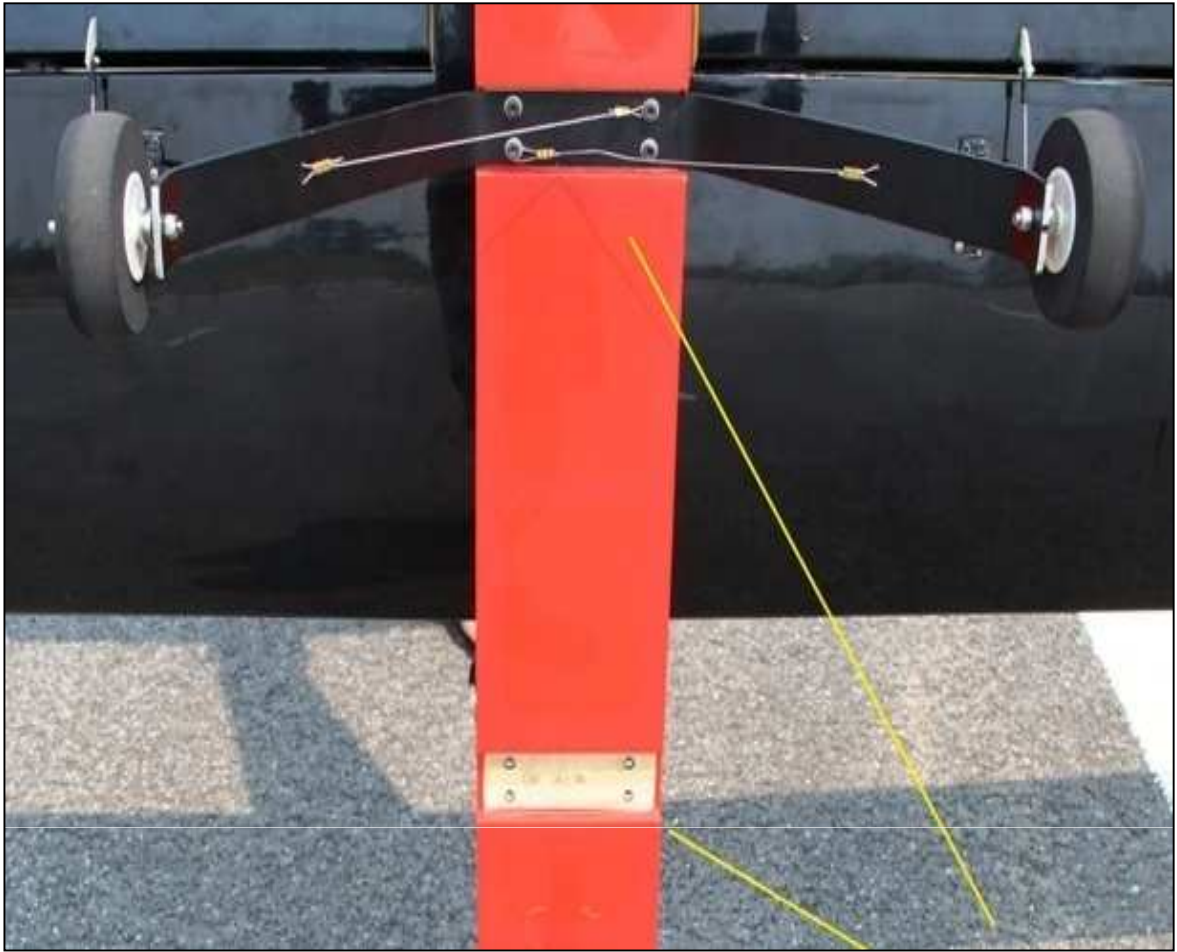
Only need to install three screws for each nylon nose gear support.

Secure the Nylon nose gear support with four screws through the pre-cut holes in the firewall.

-Slide the steel nose gear through the Nylon support and the Nylon steering arm. Connect the steering arm to a servo inside the fuselage front section

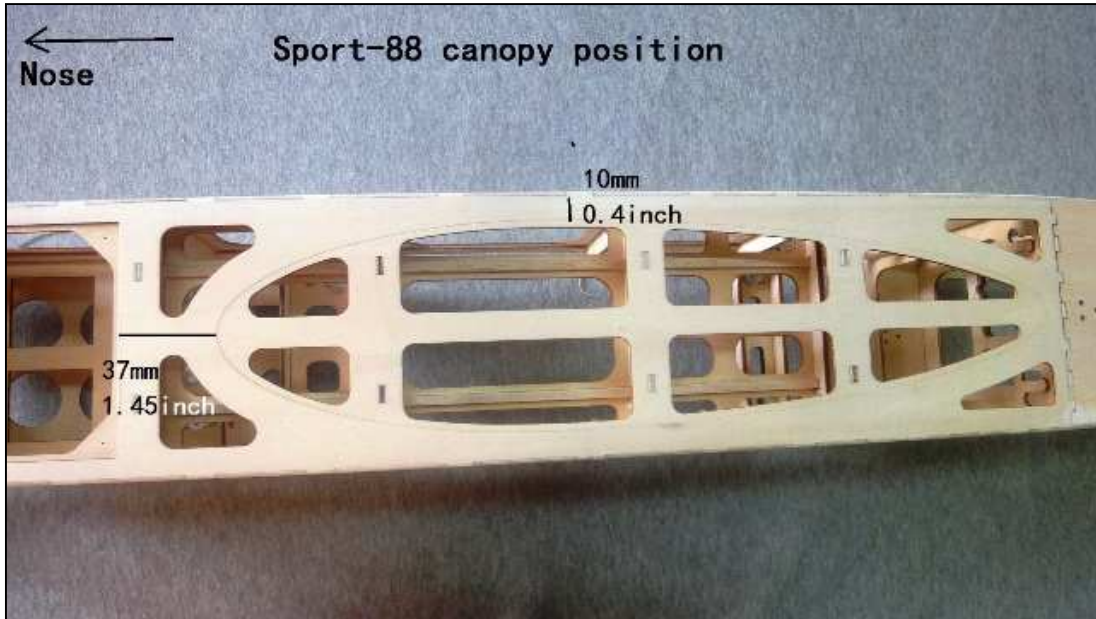
-Tighten the set-screw in the steering arm directly over the "flat" section of the steel nose gear.

Trigear Installation (optional)



- The main gear is positioned rearward, under the wing.
- There is a cavity for it recessed into the fuselage, the same dimensions as for the Tail dragger version.
- Simply cut the covering and install the main gear, as previously described.

Canopy Installation for Low Wing Trainer



Find the canopy installation position.

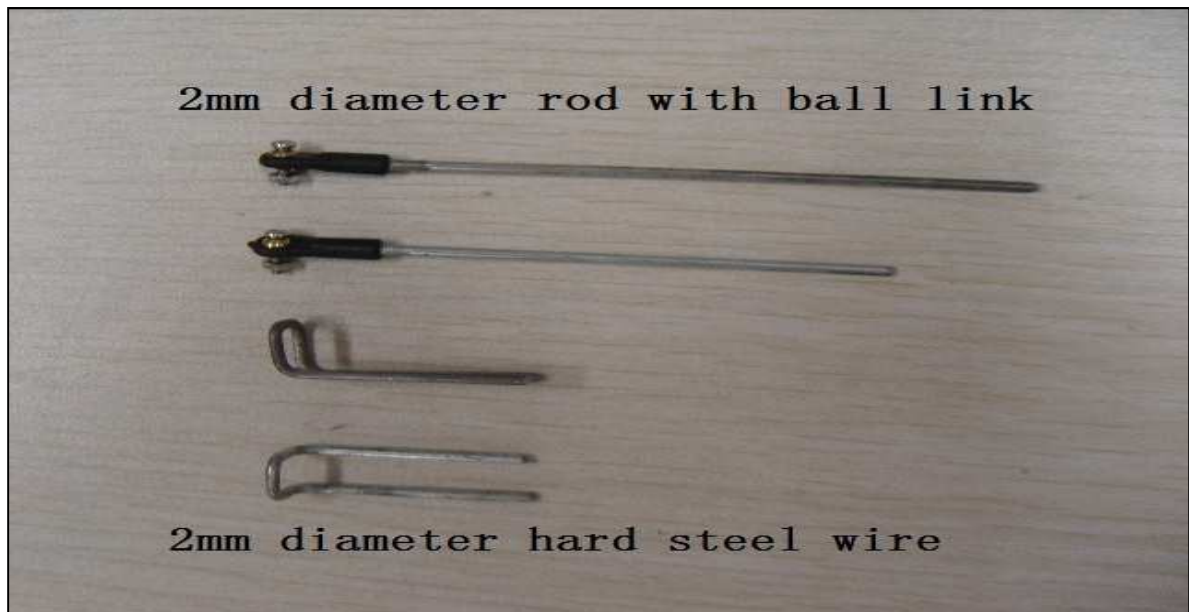


Screw the canopy to the fuselage with the bolt.



Tow hook Release Mechanism Assembly (optional)

The trainer does not come with the hook, but you can make the hook per this manual



prepare some 2mm diameter hard steel wire. Make it as the shape on the photo.

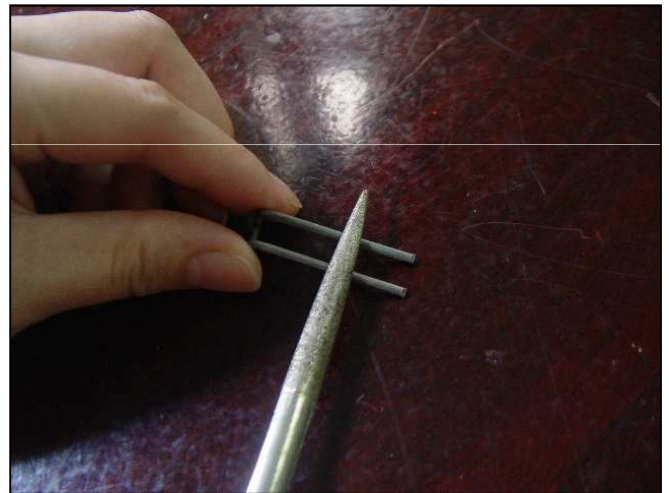
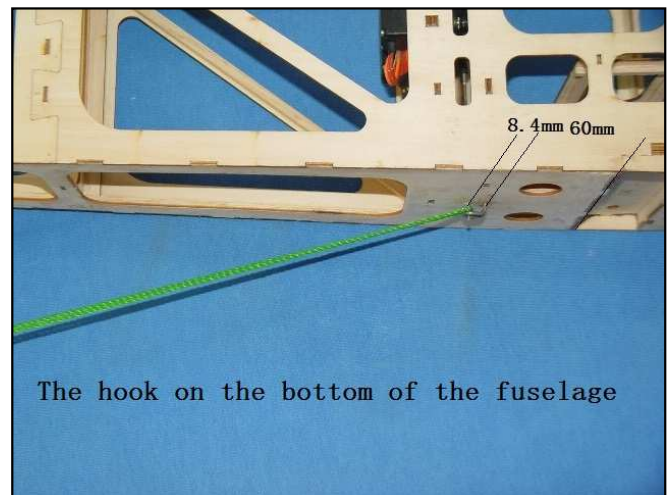
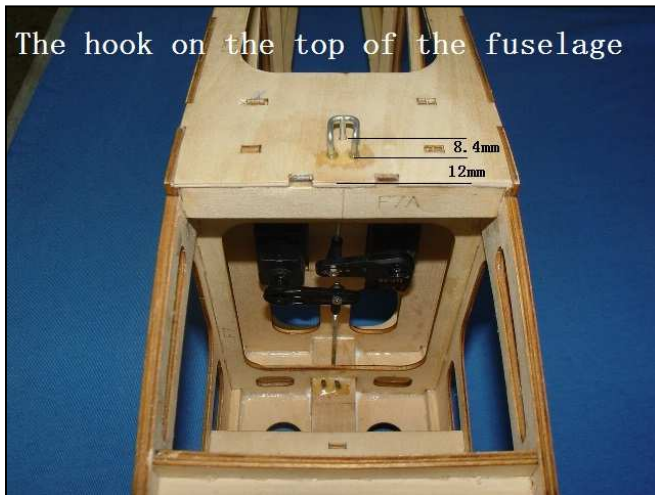


Use ruler to check the hook's length.



Tow hook Release Mechanism Assembly (optional)

Install the hook to the trainer



Find three pre cut holes on the top of the fuselage.

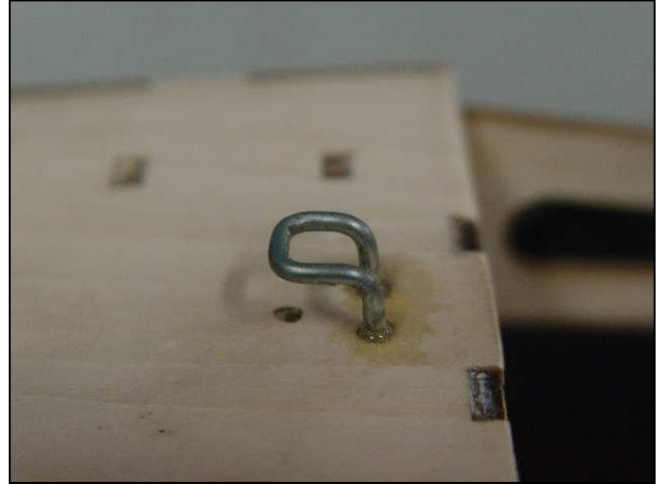
Find three pre cut holes on the bottom of the fuselage.

Drill the hole with 3mm diameter drill .

Sand the hook with the file.

Tow hook Release Mechanism Assembly (optional)

Install the hook to the trainer



Lay on the hook with the 30 minute epoxy.

Put the hook to the precut hole on the fuselage. Wait until the 30 minutes epoxy dry.

Install the servo and the rod.

Flying Setting

These dimensions are for your first initial flights. Adjustments can be made to suit your flying style

Ailerons: 3/4" or 20mm (Up/Down)

Flaps: 1 1/2" or 40mm (Down)

Elevator: 5/8" or 32mm (Up/Down)

Rudder: 2" or 50mm (Left/Right)

Centre of Gravity

5 3/4" or 146mm behind the leading edge of the wing.



Flight Preparation

- Make sure you have the right model programmed into your transmitter
- Check the direction of each surface not and also right before you take off .
- Remember nothing wrong on the ground ever improves in the air
- Check the air plane with the engine running and do a range check with your body between you and the plane at least 150 feet.
- Check your battery voltage after each flight, in case one servo is draining your battery
- Recheck all screws ,horns and linkages for slop after your maiden flight and check for damage if you made a bad landing you first time
- Have an experienced pilot fly it for you the first time if you have any doubts in your mind about the maiden flight
- Take a break after you first flight and let the adrenaline burned off by bragging to your fellow members how good it flies
- Fly low and at a medium speed on your first few flight
- Listen to your engine run and have an observer with you to remember what you talked about during the flight or if you get into trouble . Always balance your props, vibration is a killer.
- Remember nose heavy airplanes fly all the time, tail heavy airplanes fly only once. Be on the CG!
- Flying two mistakes: high in the beginning and not close to people, planes or runways. Being a center of the runway hog does not endear you to many modelers.

Double Check

Double check that all screws are installed, all components tightly secured, batteries and or fuel tank are full, all surfaces are working in the correct directions, balance is correct and range test passed before performing your maiden flight.

**WE WISH YOU A SUCCESSFUL MAIDEN AND MANY HAPPY FLIGHTS WITH YOUR
NEW MODEL**

Tony Tan, Pilot-RC



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