Trainer Assembly Manual

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■ All Pilot-RC products are guaranteed against defects for 30 days of receiving your airplane. This warranty is limited to construction or productions defects in both material and workmanship , doesn't cover any component parts damaged by use or modification .

■ The manufacture can't supervise the assembly ,operation and maintenance ,and can't ensure your radio system is in good condition. Therefore ,**we are not responsible for any damage occurring during the use of a radio controlled model**. It is impossible to determine for certain wehther crash damage was the result of a radio systerm failure or pilot error even improper installation of our products.Model airplane owner is using it on his own responsibility.

■ In no event should Pilot-RC accept the liability exceeds the original cost of the airframe (not include engine and radio system).

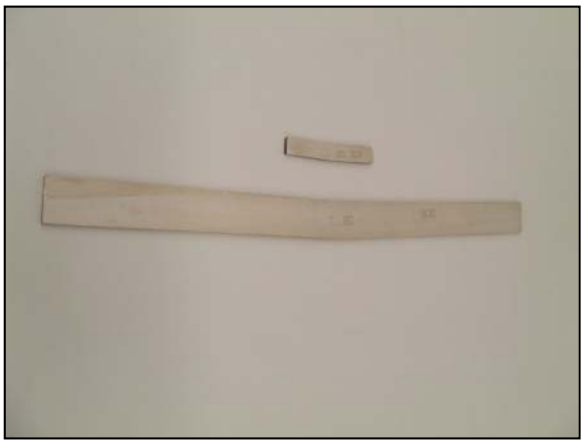
■ No matter what reason you wish to return this airplane , all shipping cost will be paid by costumer.If some parts require replacement from us ,the original parts' return is at costumer' expense.

- **You should not regard this plane as toy!**
- To ensure safety,please read the instruction manual thoroughly before assembly .
- Building and operating model plane require diligent practicing and correct guidance. Any neglect,carelessness and missing experience can cause serious bodily harm and property damage.
- Seek the assistant of a experienced person or airplane model clubs in assembly ,operation and maintenance to ensure quick and successful learning
- **Fly only in proven model airfield** that AMA (Academy of Model Areonautics) approved

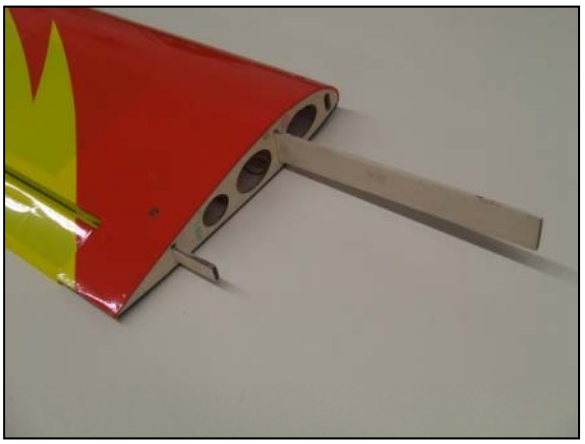
Pilot-RC has the right to change to this plane ,instruction and limited warranty without notice. If you have any problems and questions ,please contact pilot –RC

Email: pilot-rc@139.com , pilot-rc@hotmail.com
Cellphone:+86 760 88781293
FAX: +86 760 88780293
Address: No.34, Chengnan Er Road , Zhongshan city, 528400, Guangdong Province, China

-Preliminary wing & stab assembly-



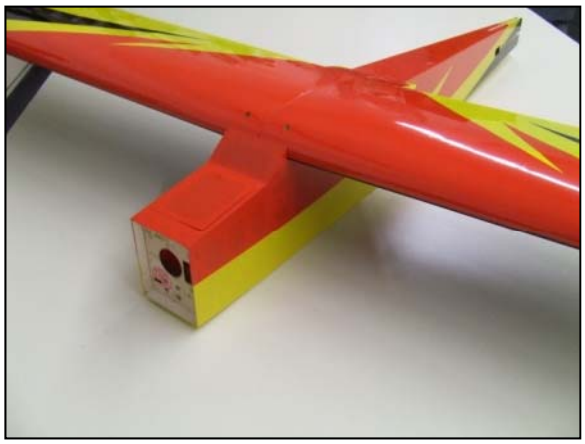
1-) Locate both Plywood wing joiners (Large and small one)



2-) Insert both wing joiners inside one wing panel.

3-) Slide the other wing panel over the plywood joiners.

4-) Bring both wing panels together and verify for proper fit.

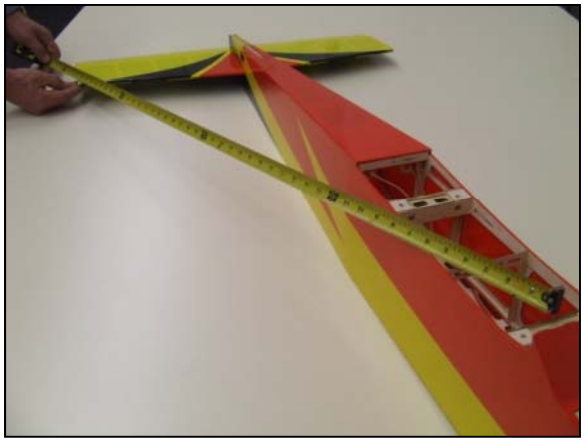


5-) Fit the complete wing over the fuselage as shown.

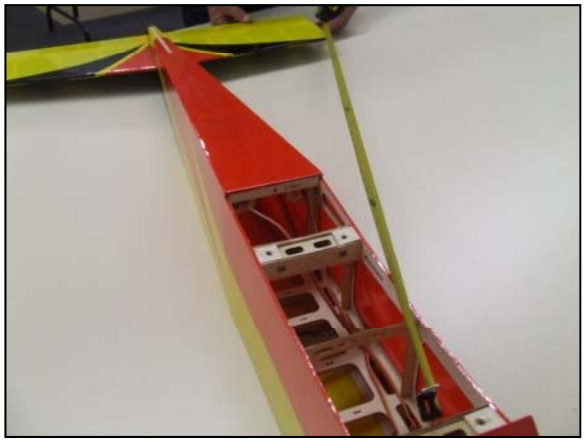
6-) Locate the 4 wing mounting screws and washers from the enclosed hardware bag.

7-) 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.

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



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



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

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

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

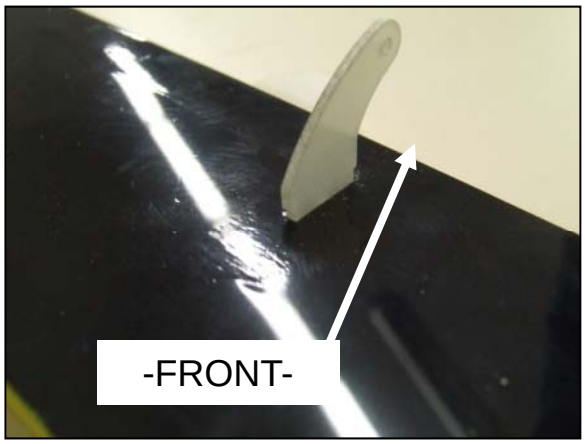
13-) Repeat on the bottom of the stab.

-Elevator control horn assembly-

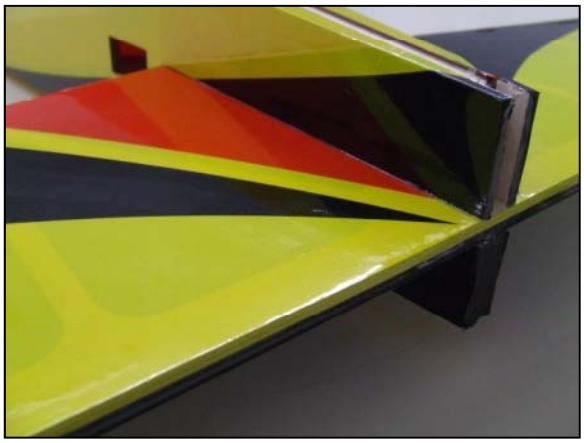
14-) Locate the control horns for the hardware bag.

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

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



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

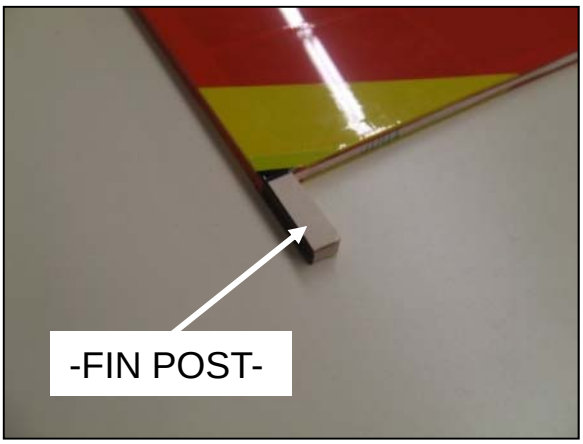


18-) Apply 30-minute epoxy to both the stab and fuselage sections and slide the stab into position.

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

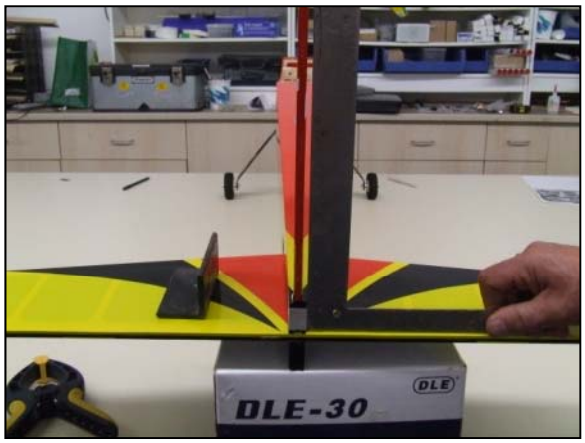
20-) While the epoxy is curing, align the stab to the wing by looking from the front of the fuselage. Adjust if required.

Tail group assembly

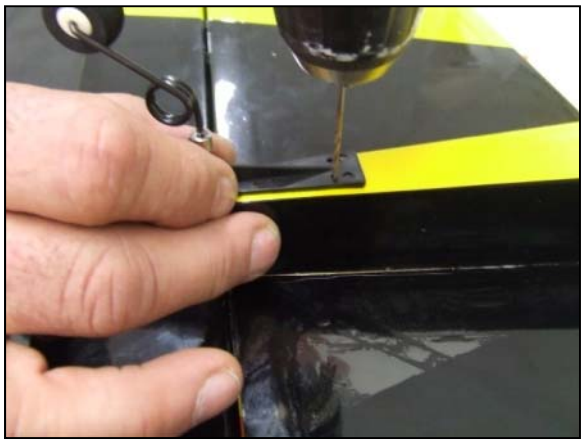


21-) Cut and remove the covering from the bottom of the fin post.

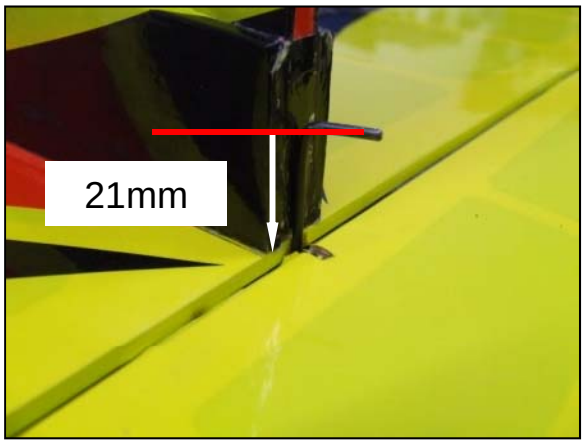
22-) Mix some 30-minute epoxy and apply to both the fin and fuselage inner sections. Secure with masking tape.



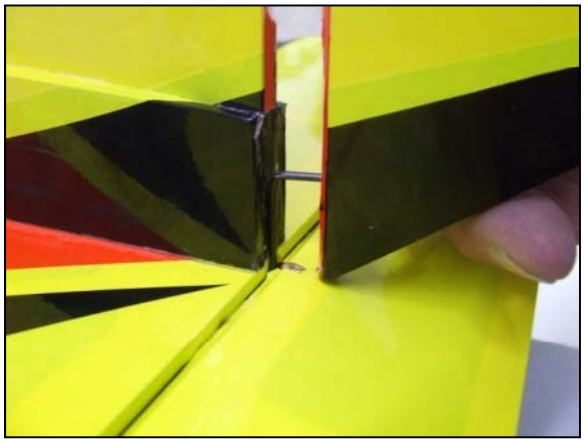
23-) While the epoxy is curing, align the fin to the stab at 90-degrees.



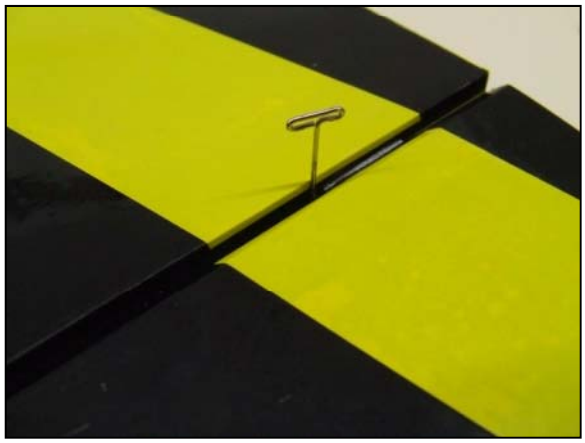
24-) Set the tail wheel bracket over the fuselage as shown. Drill small holes and secure with the supplied wood screws.



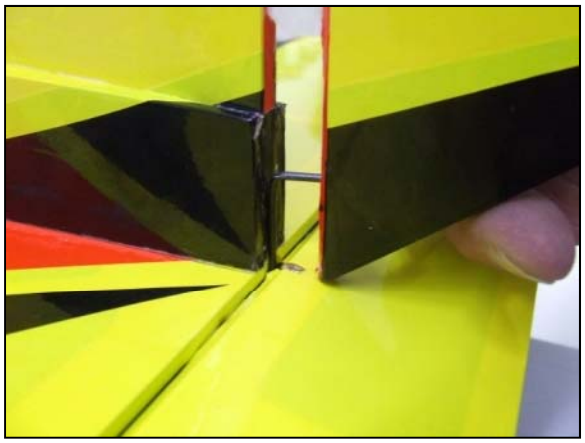
25-) You will need to make a 90-degree bend into the steel wire, 21mm from the top of the stab. NOTE: The bend must be parallel to the rubber tail wheel.



26-) The rudder as a pre-cut slot in it's leading edge. Cut and remove the covering and trial fit the steel wire into it.

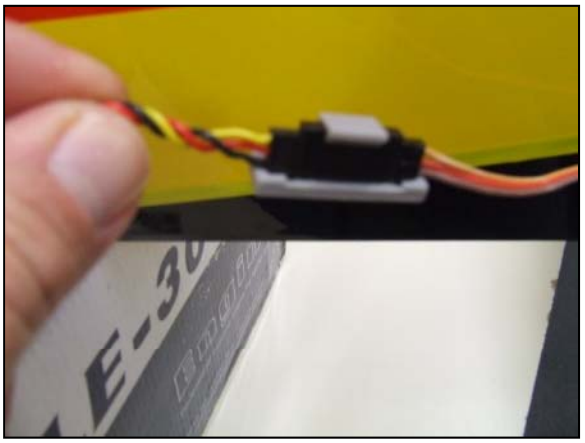


27-) Insert a pin in the center of each hinges. Insert the hinges in both elevator and stab and push them in position as shown. Then, apply a few drops of “Thin C.A” to each sides of the hinges.



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

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



29-) 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.

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

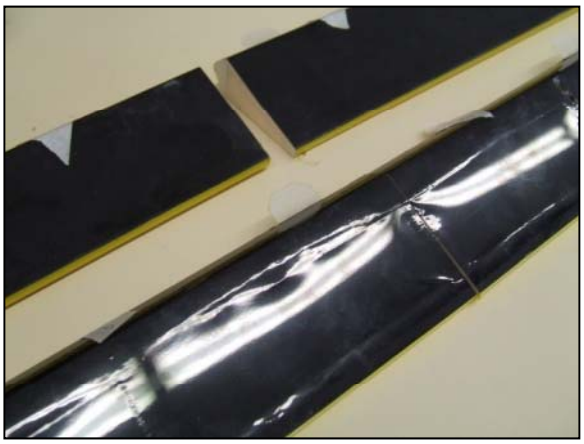
31-) Secure the other end of the rudder pushrod to the rudder horn.

32-) Completed rudder pushrod installation shown here for reference.

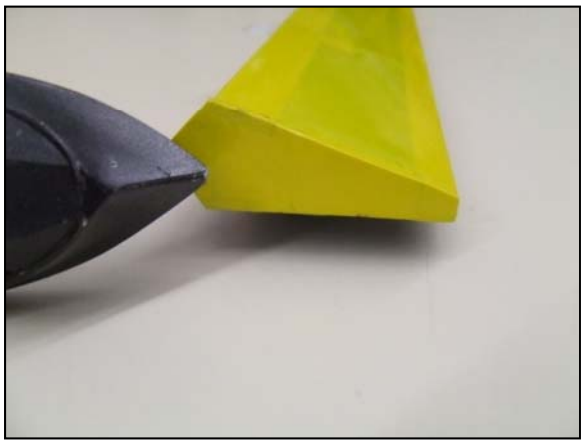
33-) Repeat the same process for the elevator servo. Use the remaining long pushrod from the hardware bag.

-Final wing assembly-

Note: This wing is built with full-span ailerons or with flaps. The procedure below shows how to install flaps.

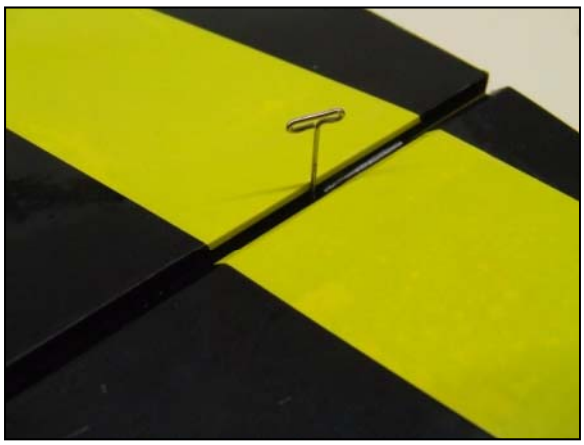


34-) In the middle of both ailerons, there is a location to “split” the ailerons in half. Cut into that section to separate the ailerons from the flaps.



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

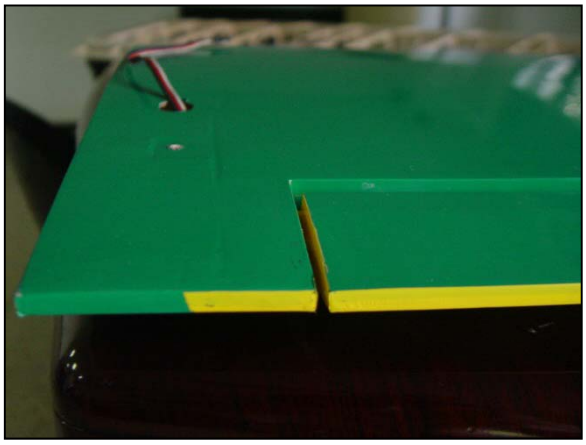
36-) Locate the slots in the ailerons/flaps and bond a control horn into each slots using 30-minute epoxy.



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

38-) 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.

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



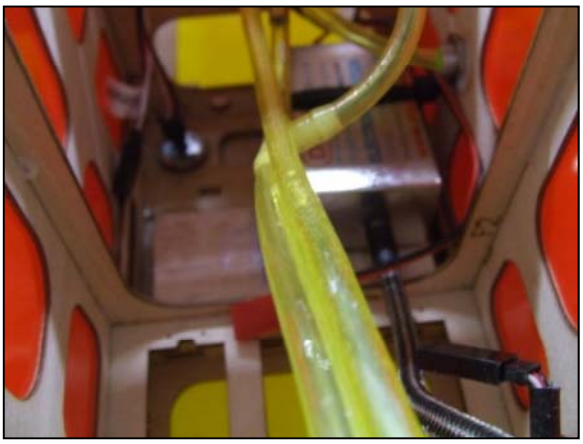
40-) All servo lead extensions should pass through the pre-cut holes in both wing panels as shown.

41-) Repeat the same procedure for the flap servos.

-Engine and fuel tank installation-

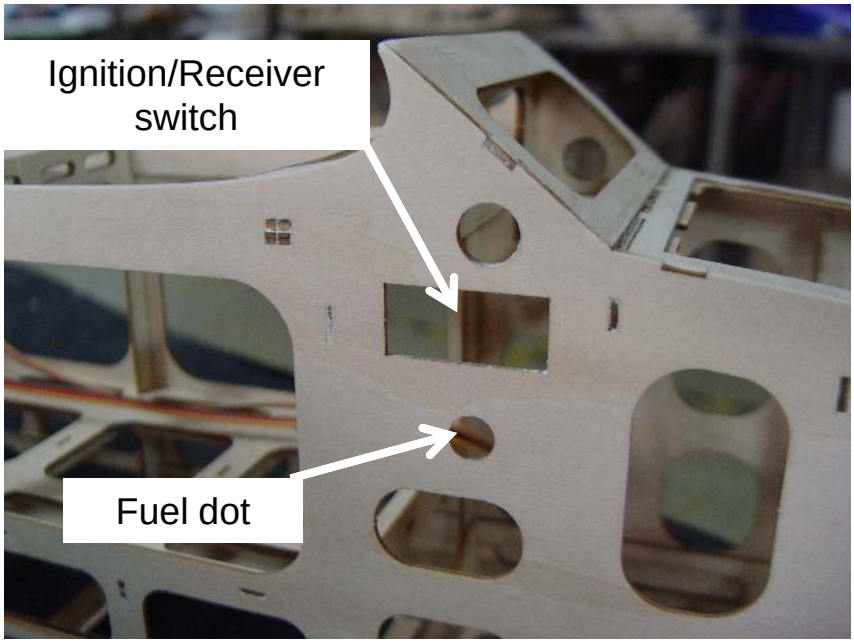
42-) DLE 30cc engine. Drill the laser-marked holes on the firewall and install it using the stand-off's that came with your engine.

43-) Install the fuel tank and secure it using the supplied plastic "Tie-Wraps" as shown.



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

45-) 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.



46-) 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.

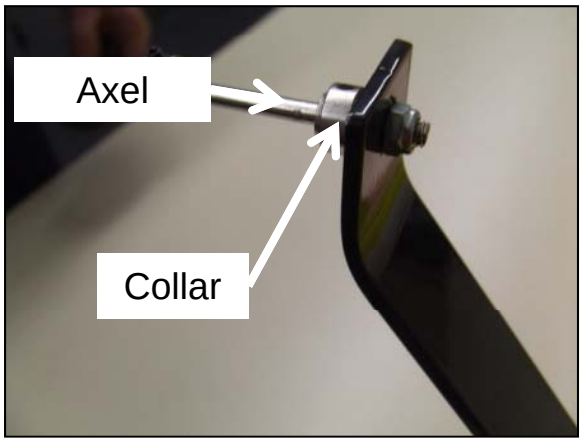
47-) The fuel dot receptacle is fitted to the fuselage . You have to unscrew the fuel line plug to fill the fuel tank. (Picture for reference only)

-Main landing gear installation / Tail dragger version-

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

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

50-) Secure the main gear with the supplied screws and washers from your hardware bag.



51-) Install one wheel axel on each sides of the gear and insert one wheel collar over the axel as shown.

52-) Position the wheels and secure with another wheel collar.

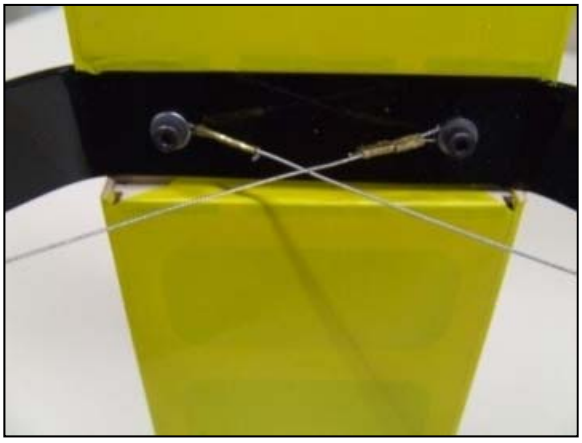
NOTE: The following pictures describe the installation of the optional steel stiffening brace.

53-) Gear stiffening brace. There are two holes per gear sides, near the middle. Insert in a “U” shape the supplied steel cable from your hardware bag.

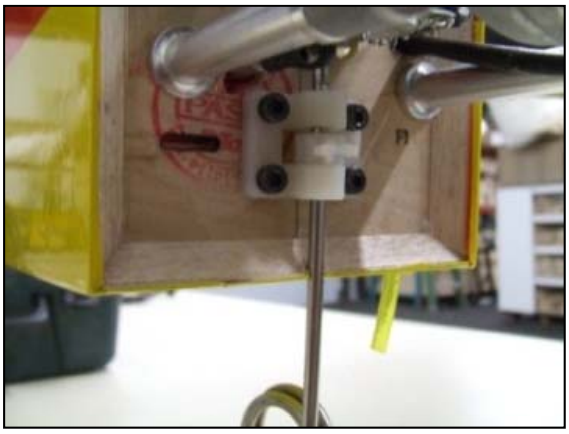
54-) Using one Brass sleeve, pass the steel cable in a “loop style” in order to make a knot into it.

55-) Crimp the Brass sleeve against the steel cable and cut the remaining cable.

56-) Slide a piece of “Heat-Shrink” tubing over the loose end of the steel cable and wrap/shrink it over the Brass sleeve. Repeat for the other side.



57-) Slide another Brass sleeve over one end of a steel cable and “loop” it under the main gear screw washer and then, crimp the Brass sleeve. Repeat for the other side. NOTE: Lift the fuselage off from the main gear before crimping the Brass sleeves.

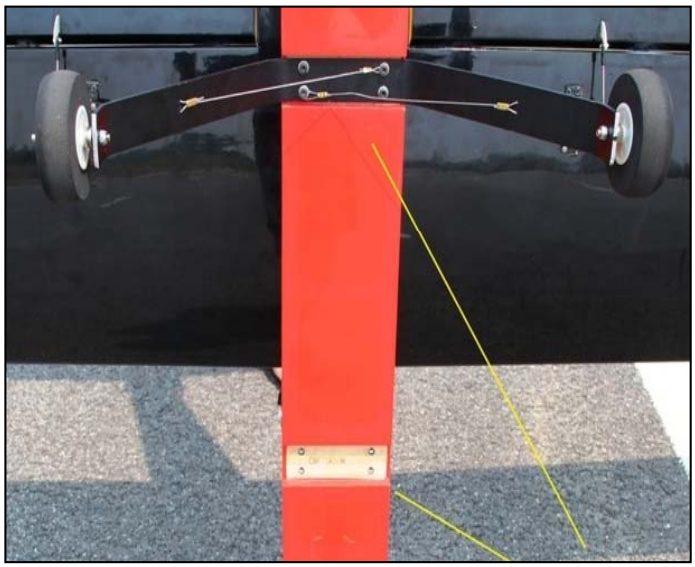


Trike gear option:

-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.



Trike gear option:

-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.

-Optional Tow hook Release Mechanism-

(Optional items / available separately from Pilot RC)

1-) Assemble the small servo tray as shown. This part will be bonded latter inside the top section of the fuselage.

2-) Dry fit the two parts F51, one F51A, one Brass sleeve and one Black tube. NOTE: Part F51A goes towards the front of the fuselage.

2-) Overall finished assembly with servo for references.

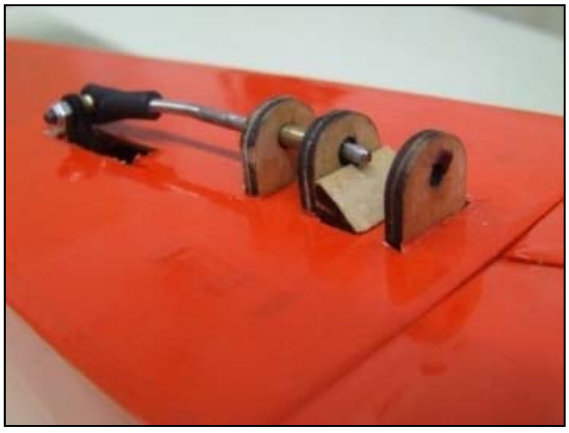
3-) Using 30-minute epoxy, slide into the fuselage part F51A and secure with the Black tube.

4-) While the epoxy is curing, insert the two parts F51 in the remaining two slots. Then, push in completely the Black tube.

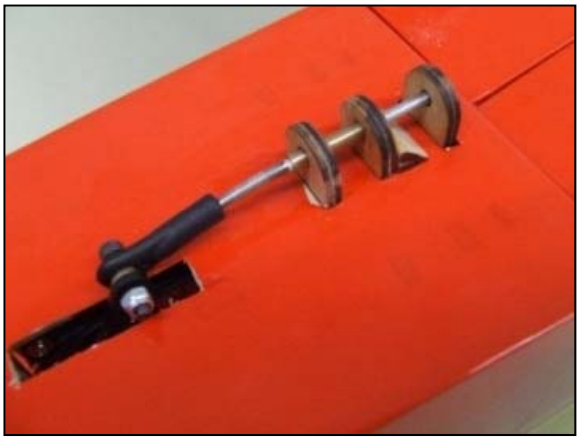
5-) Bond the Brass sleeve into both F51's as shown. Remove some small material in front of the first F51 to expose the wood.

6-) Bond a small piece of triangular wood stock in front of one F51, over the removed covering.

7-) Using 30 minute epoxy, bond the servo tray inside the top section, in line with the fuselage slot, allowing the servo arm to protrude outside of the fuselage.



-Open position-



-Closed position-

Note from Pilot RC:

-Included are Laser-Cut plywood parts. These parts are provided to allow you to repair your Trainer in case of a mishap.

-If you need additional parts, please contact Pilot RC directly.

Initial travel deflections.

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

-Ailerons: ¾" or 20mm (Up/Down)
-Flaps: 1 ½" or 40mm (Down)
-Elevator: 5/8" or 32mm (Up/Down)
-Rudder: 2" or 50mm (Left/Right)

Center of Gravity:

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