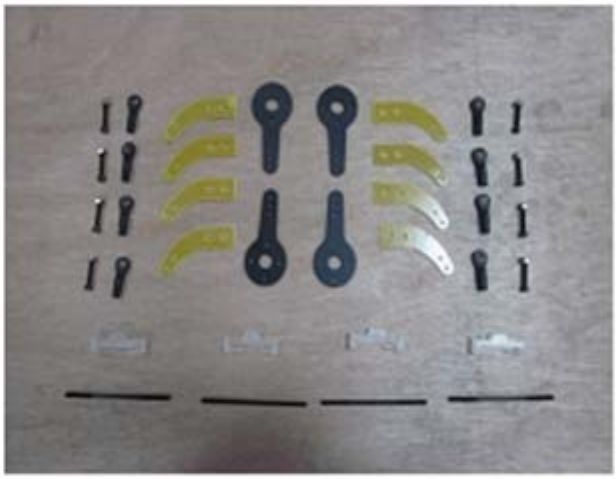
Pitts 50CC Manual

Thanks for your purchasing our airplane

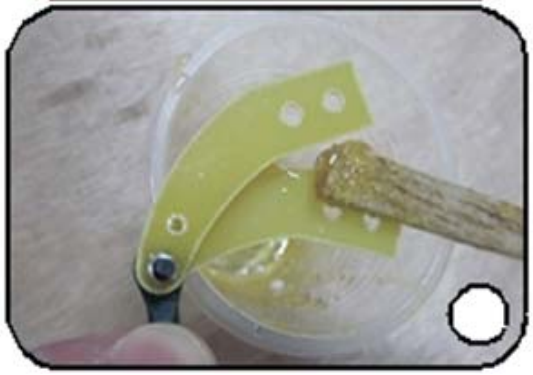
Wing Assembly



Aileron Control Horns

1.Scuff the horns with sand paper to ensure a good glue bond.Drill 2.5mm holes in the horns and install the M2.5mm ball link with the screw.

2. Pre-hinged control surface is ready to fly. Remove the covering below to expose the pre-cut slots with a knife.



3. Apply 30 minute epoxy inside the pre-cut slots and coat the horns with epoxy, Insert them into the pre-cut slots. Wipe away excess glue with rubbing alcohol.

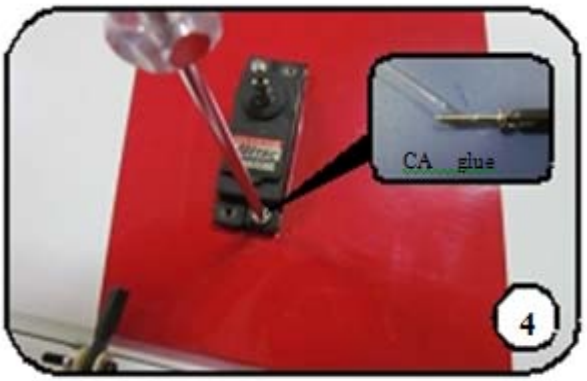
Aileron Servo Installation

Minimum Required Servo:180 in.oz / Metal Gear / Digital

1.Use the provided safety clips to secure the servo and servo extension leads.

2.The covering of the servo location had been remove as shown.Put the end of the servo extension in the servo location. And then pull the extension lead through to the root of the wing. Taping servo lead to the inside of the wing panel will help to prevent lead from dropping back inside of wing panel during transportation.

3. Drill 1mm holes for the servo mounting screws. Position the servo with the servo label closest to the wing trailing edge



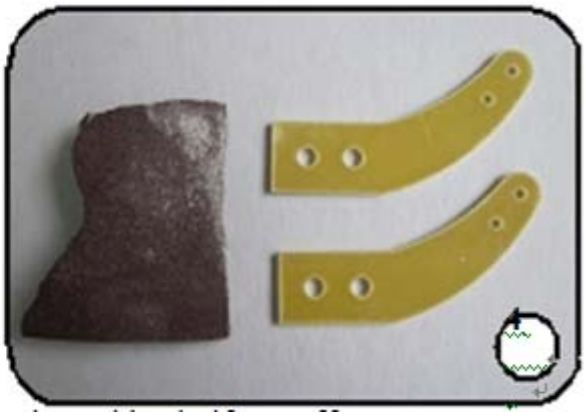
4. Use a drop of thick CA glue on each screws to prevent tapping screws from loosening due to vibration. Install servo with M2*12mm tapping screws.

Stab and Elevator Installtion

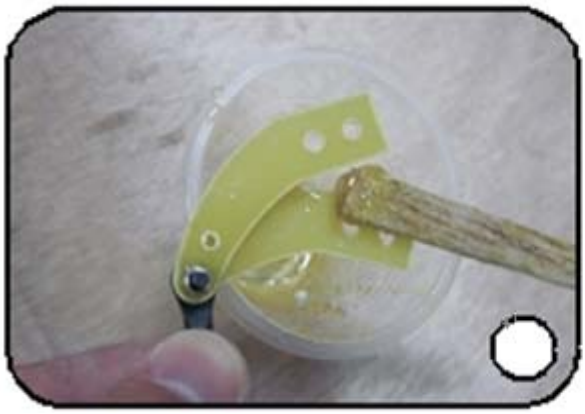
1. Insert the stab into the fuselage tail. Measure the stab to find the middle.

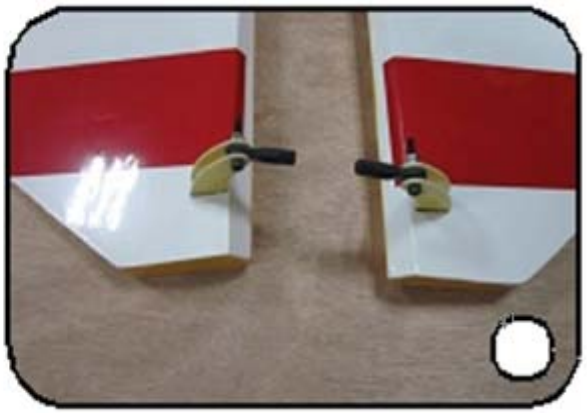
2 .Mark the stab with a pen when the stab is symmerical.Trace around the fuselage with a knife and remove the covering below to expose the board.Take care not to scratch the board.

3 .Coat the horns with epoxy. Insert them into the fuselage again.Make sure the stab is symmerical.



4.Remove the covering below to expose the pre-cut slots with a knife. Scuff the horns with sand paper to ensure a good glue bond.





5 .Install the two horns with M3*16mm screw and locking nut. Apply 30 minute epoxy inside the pre-cut slots and coat the horns with epoxy, Insert them into the pre-cut slots.

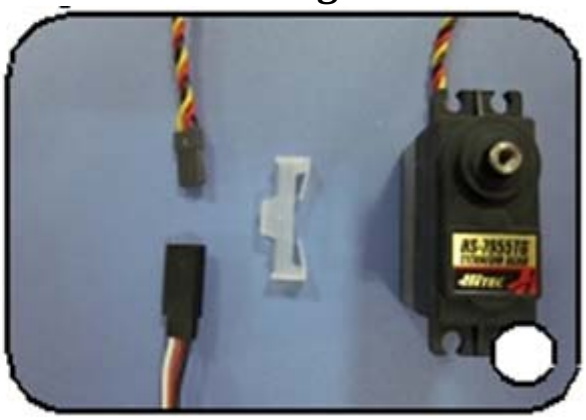
6. Insert the hinge into the elevator hinge-holes.Stick the hinge to the elevator first.

7 .Insert the hinge into the stab hinge-holes.Use a drop of thick CA glue to stick the stab and elevator.

8 .Check you have full elevator deflection before fasten the stab with tape.

Elevator Servo Installation

Minimum Required Servo:180 in.oz / Metal Gear / Digital



1 .Remove the covering below to expose the pre-cut sevro hole with a knife. Use the provided safety clips to secure the servo and servo extension leads

2. Run the extension lead through the fuselage to the receiver.Taping servo lead to the fuselage will help to prevent lead from dropping back inside of wing panel during flying.

3. Position the servo with the servo label toward the fuselage head. Drill 1mm holes for the servo mounting screws using the long aiguille.

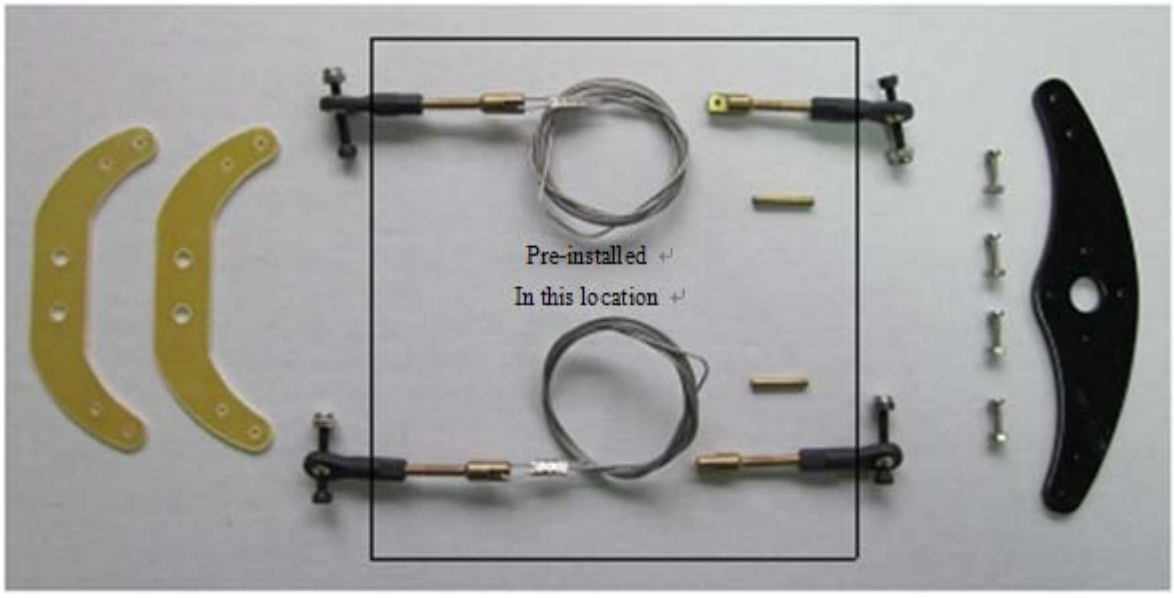
4. Install servo with M2*12mm servo mounting screws. Use a drop of thick CA glue on each screw to prevent screws from loosening due to vibration.

5. Turn on the transmitter. Make sure the servo is in the neutral position. Install the servo arm. Position the servo arm 90 degrees to the servo,and tighten the arm screw.

6. Adjust the pushrod length so that the servo and elevator are both in the neutral position.Install the arm pushrod with M3*16mm screw and lock nut.

7. Repeat all the previous steps for the other elevator.

Rudder Assembly

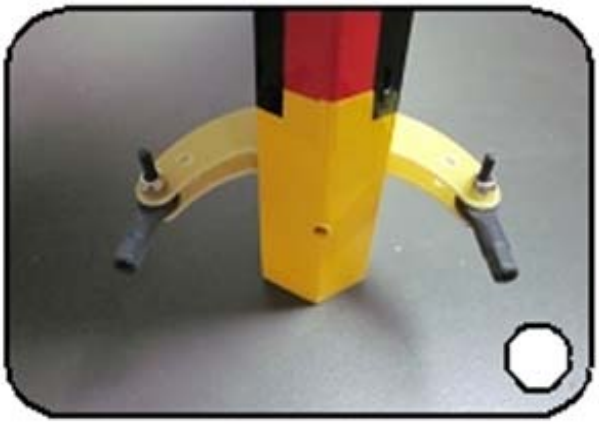


Rudder Horns and Hinges

1 .Trace around the fuselage with a knife and remove the covering below to expose the board. Take care not to scratch the board.

2. Remove the covering below to expose the pre-cut slots with a knife.

3. Scuff the middle of horns with sand paper to ensure a good glue bond. Apply 30 minute epoxy inside the pre-cut slots. Coat the horns with epoxy.Insert them into the pre-cut slots.



4. Install the ball link with M2.5*16mm screws and locking nuts. Tightening the nuts is recommended. Wipe away excess glue with rubbing alcohol. Make sure the horns are correctly aligned and symmetry before the apoxy has cured.

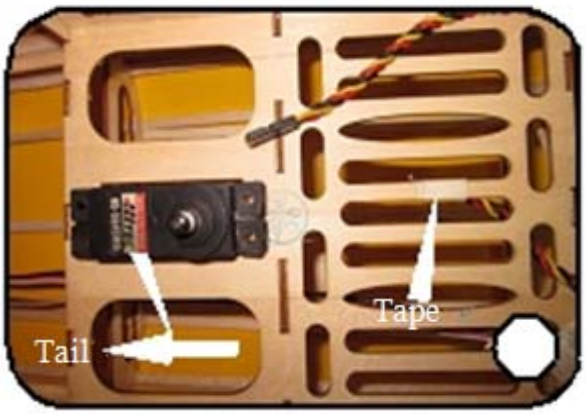
5. Insert the hinge into the rudder hinge-holes. Stick the hinge to the rudder first.

6. Insert the hinge into thehinge-holes. Use a drop of thick CA glue to stick the stab and elevator.

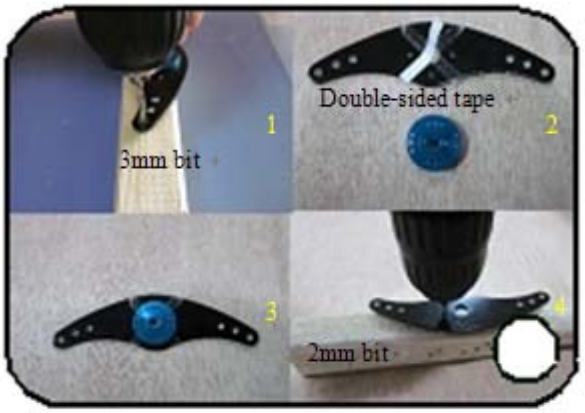
Rudder Servo Installation

Minimum Required Servo:180 in.oz / Metal Gear / Digital

1. The rudder cables and couplers have been pre-installed.



2. Position the servo with the servo label toward the fuselage tail. Fasten the servo wire with the tape.

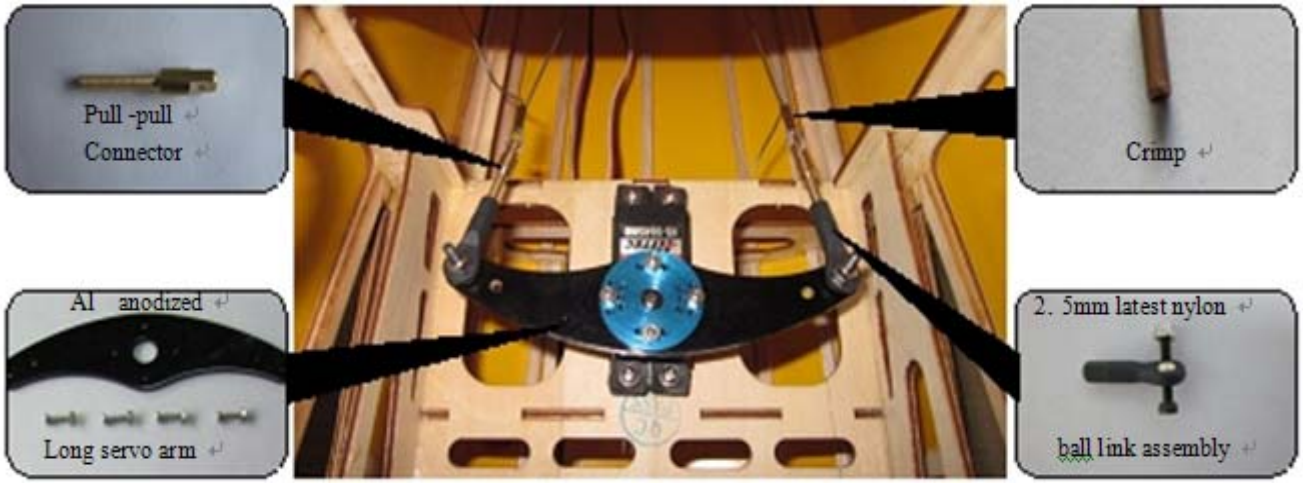


3. Drill 2.5mm holes in the AL long arm for installing 2.5mm ball links and screws.Drill 2mm holes in the servo arm and mount it with M2*8mm screws and nuts.

4. Drill 1mm holes.Install the servo with the M2*12mm tapping screws.

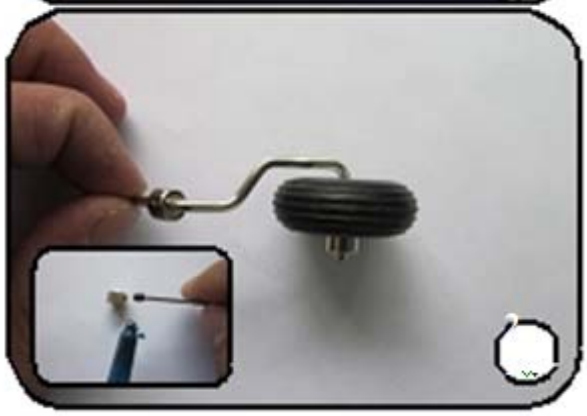
5. Turn on the transmitter.And then install AL long arm on the servo. Position the servo arm 90 degrees to the servo.

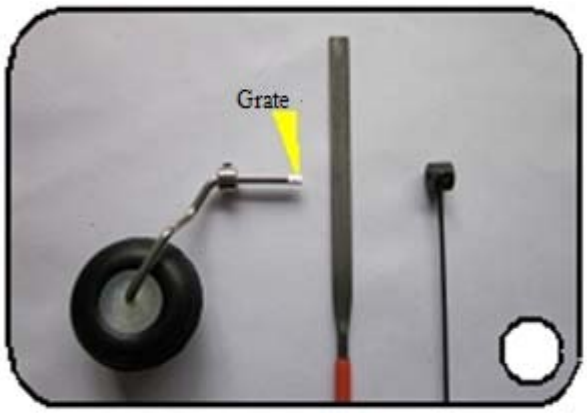
6. Mount the pre-installed ball link to the servo arm with the M2.5*16mm screws and the locking nuts. Remove any slack in the cables and crimp to secure. Crimp the brass swage tube with a crimping tool or pliers. Finally you can adjust the cable by loosening or tightening the cable connectors.



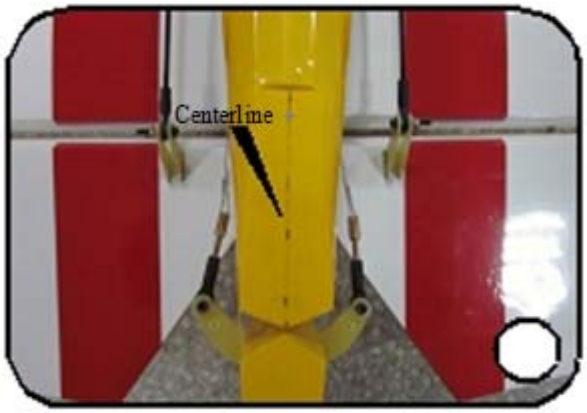
Tail Wheel Installation

1. Install the carbon fiber tail wheel bracket with M5mm locking nut and M5 permanent seat AL screw.





2. Install the wheel to the steel wire with wheel collars.All wheel collars should be secured with Blue Loctite. Grate the end of the steel wire with a grater.



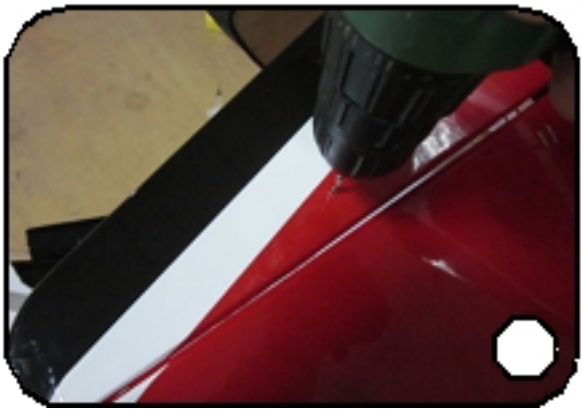
3. Draw a centerline on the fuselage tailwith a pen.

4 .Use the tail wheel bracket as a template and drill 2mm holes .Install the tail wheel bracket with three M3*12mm tapping screws.

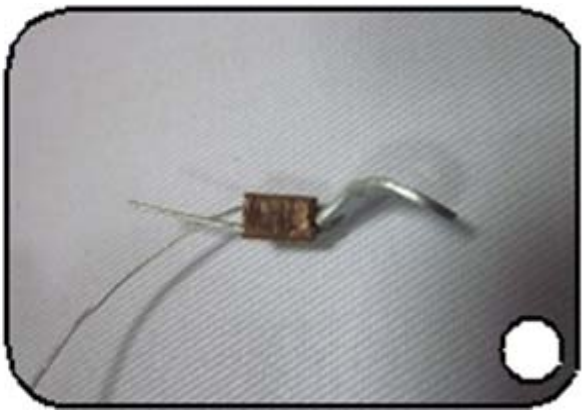
5 .Drill 4mm holes in the bottom of the rudder. Scuffing the ball link with the sand paper to ensure a good glue bond is suggestted before gluing.

Make sure the ball link hole is parallel to the rudder. Apply 30 minute epoxy inside the 6mm hole and coat the hinges with epoxy , Insert the ball link into the hole.

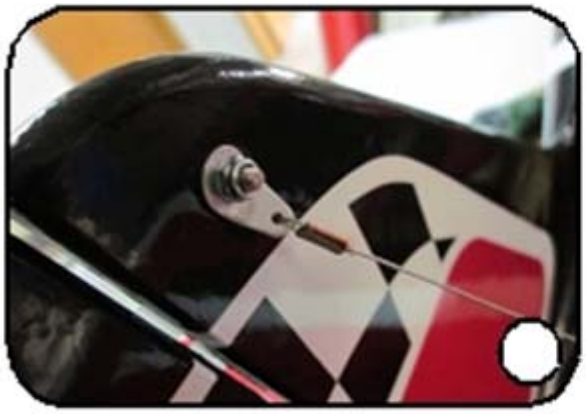
Fin And Stab Cable Tensioning




1 .Find the hole mark on the fin and stab.Drill the 3MM holes.

2 .Bend the metal plate with a pliers.

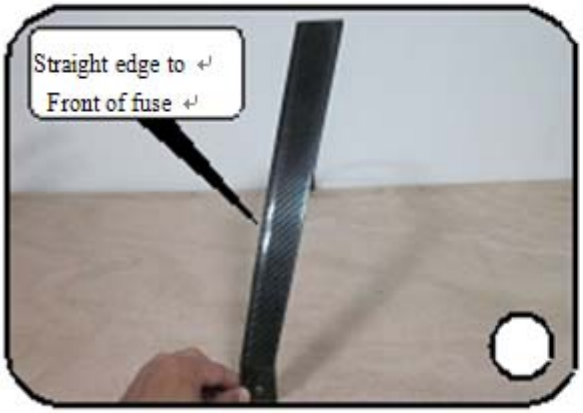



3 .Check you have full elevator deflection before fasten the stab with cable.


4 .Fasten the cable to the stab and fin holes with screws and the brass swage tube.

Main landing Gear Installation

Landing Gear Installation

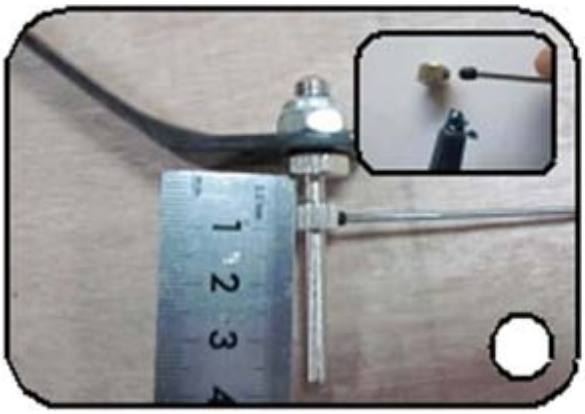


1.NOTE: the correct edge in mounting.Install the landing gear in the pre drilled holes with the supplied M4*25mm hex socket screws. All screws should be secured with Blue Loctite.Don't over tighten and crack the carbon fiber

2.Remove the covering below to expose the holes with a knife and reinstall the landing gear hatch cover. Secure the M3*12mm tapping screw with a drop of CA.The hatch cover maybe not included in some planes.

3.Tighten the M8 locking nut against the landing gear strut.(for some planes)

Pants Installation



1.Install the inner wheel collar on the axle. screw and tighten the wheel collar in place. Adjust wheel collars in or out until wheel turns freely.

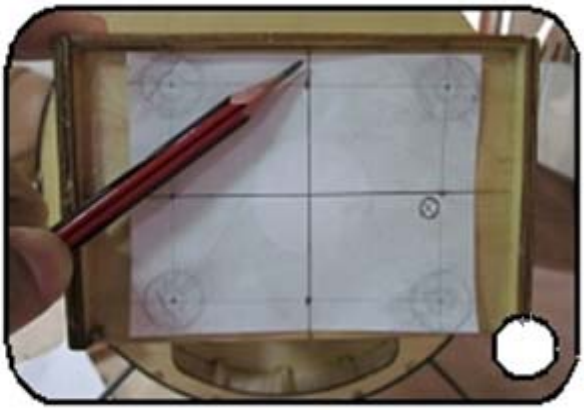
2 .And then install the wheel pant with two M2.5*12mm screws.

Engine Installation

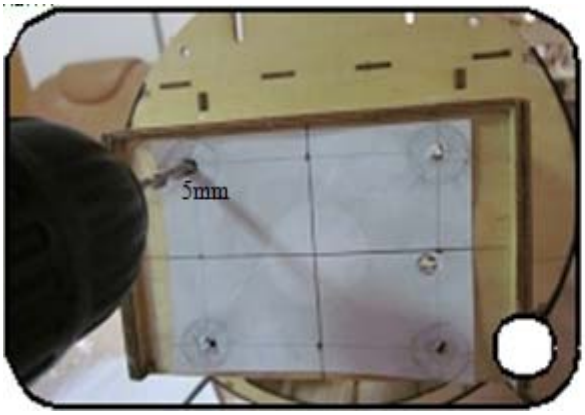
Firewall holes Assembly

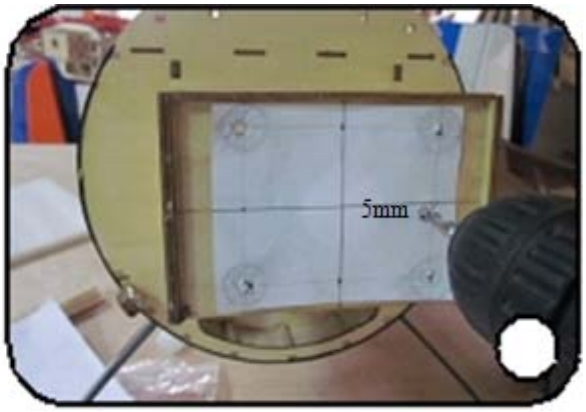
1 .Do not use Blue Loctite on engine mounting screws until final assembly. The engine will need to be removed to fit the throttle pushrod and fuel line.

2 .Tape a piece of 90*70mm paper to the side of the engine mounting with the double-sides tape.And stamp for the engine mounting on the paper with a pencil.Position the pushrod exit hole also.



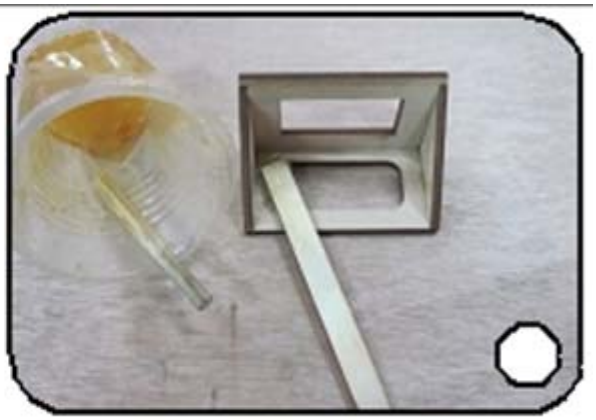
3 .Draw the center-lines with a pencil as shown.Stick the tamplate paper onto the firewall with the center-lines coincident.





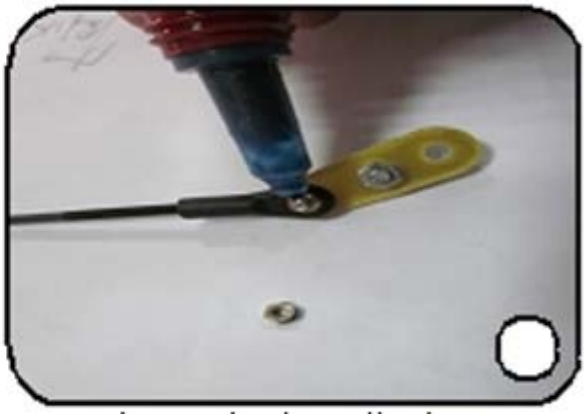
4. Drill four 5mm holes and a 5mm pushrod exit hole on the firewall.

Throttle Servo Installation

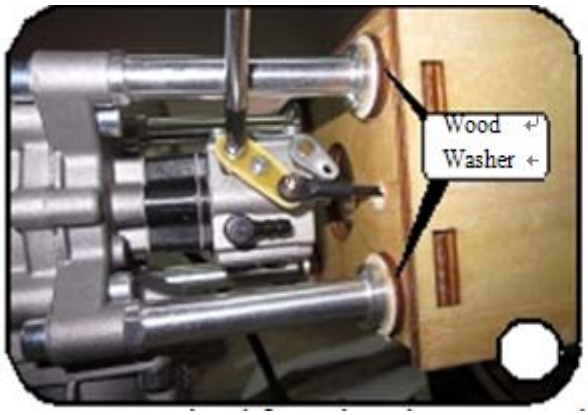



1 .Drill 1mm holes in the throttle servo mounting and epoxy it.


2. Mount the servo mounting with M2*12mm tapping screws or epoxy. Turn on the transmitter. Install the arm on the servo. Position the servo arm 90 degrees to the servo.

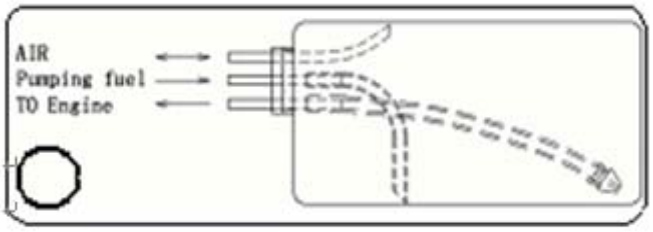



3 Thread the 2mm ball link half way onto the pushrod.Install the pushrod to the throttle arm with M2*8mm screws



4 .Remove pushrod from throttle arm on carburetor and cut throttle pushrod to length.. Use a L bend to connect the push rod to the servo arm.

Fuel Tank and Fuel line Assembly

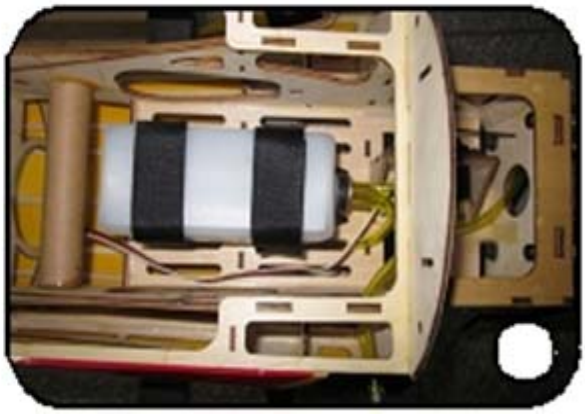


1.Fuel tube interface type has been originally marked.

2.The tank bottom and cabin connect to the tank places had originally sticky connected to the VELCRO tie.Untie the velcro and install the fuel line on the copper pipe.

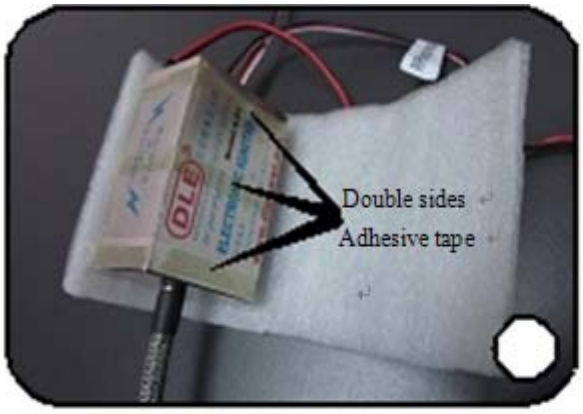
3. Install the engine fuel line to the carburetor tube.Tight the fuel line with nylon tie.

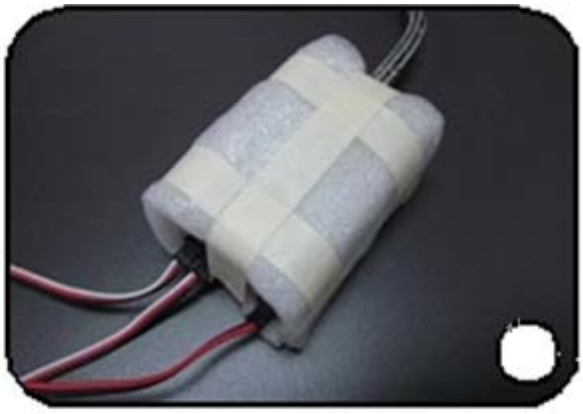

4 .Drill a 6mm hole on the side of the fuselage.Then let 6mm pumping fuel line pass through the hole.Install the M5mm screw to seal the fuel line

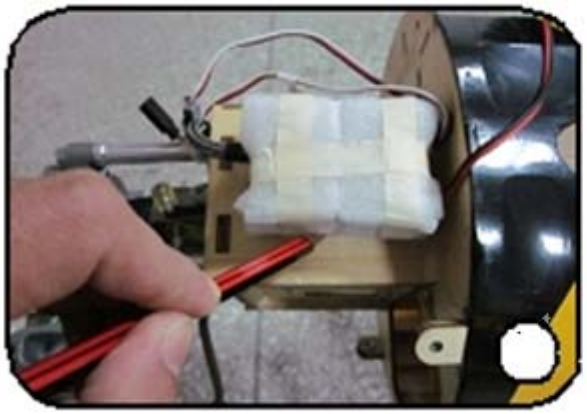
5.Drill a 6mm hole on the bottom of the fuselage.Let air line pass through the hole. Tighting the line with nylon tie will help to prevent lead from drawwing back inside of fuselage during flying.Retight the tank with the velcro tie after the fuel lines are all right.

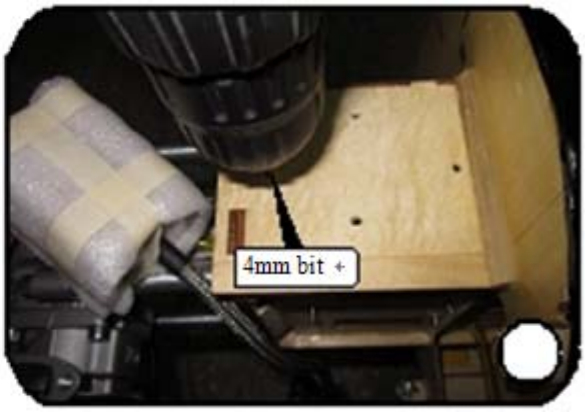
Ignition and the battery Assembly



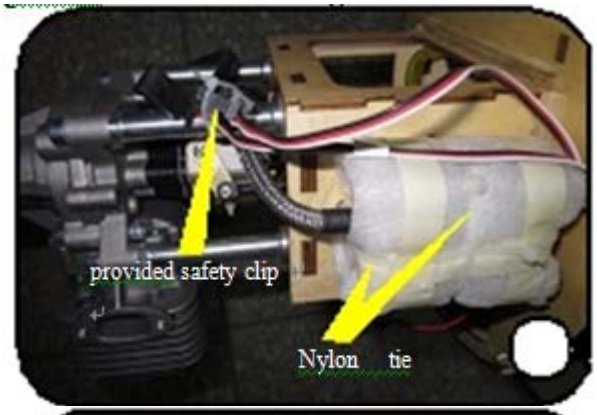


1. Trim a piece of foam rubber to the ignition module. Make the pad slightly larger than the ignition module. Bundle the ignition with tape as shown.





2.Position the ignition module on the side of the engine mounting box and mark the location of the nylon tie holes as shown. Use a 4mm bit to drill the ignition module mounting holes.



3 .Thread nylon tie through mounting holes.Mount the engine ignition module using nylon tie as shown.
Use the provided safety clips to secure the ignition and engine trigger line.

4.Repeat all the previous steps for the battery of ignition module.

Cowling Installation

1 .Measure the distance between the fuselage and the ignition plug(and exhaust).

2 .Measure the same distance on the cowling and mark it.

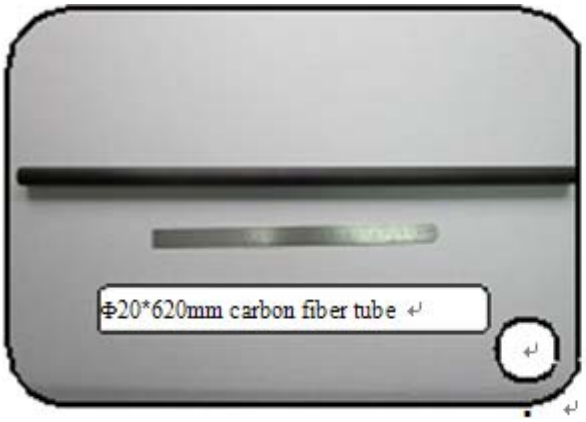
3 .Use a rotary cutting tool and sanding drum to cut out the openings in the cowl. The shape and size of open pore depends on the type of the engine.

4 .Install the cowl and check that everything fits correctly and nothing rubs against cowl. If needed enlarge the cutouts and test fit again until everything fits correctly.

5 .Measure the distance of the blind nut on the cowling and mark it.

6 .Drill two 4mm holes in place.And install the cowling with four M3*16mm screws with washers.

Wing Final Assembly

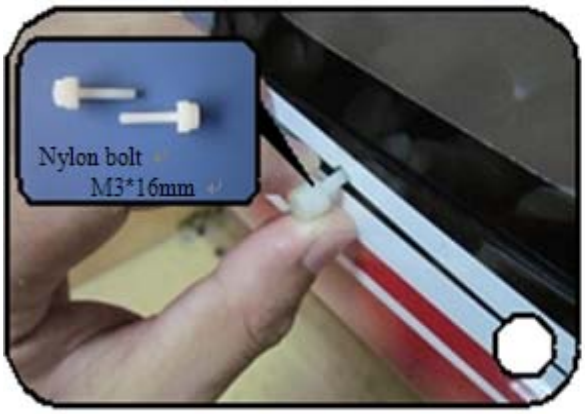


2.Install the nylon bolts to the wing blind nuts. Tighten snugly but do not over tighten. Slide the wings on the wing tube and plug in the aileron servo connectors.

3.Install the AL wing bracing to the fuselage with M3*16 screws.

4.Install the upper wing with the wing bracing and locking nuts.

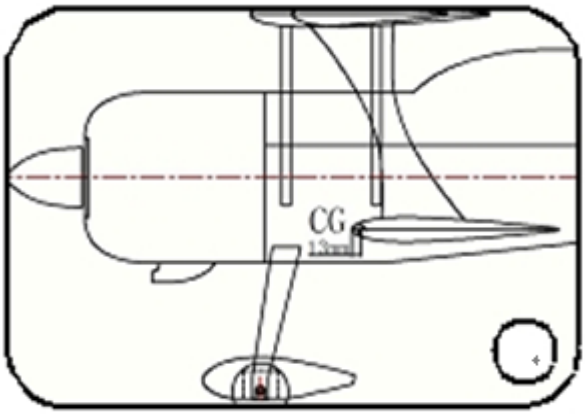
Canopy Assembly



1.Install the canopy to the front of fuselage.Tighten the canopy with theM3*16mm nylon bolts.

Flight Preparation

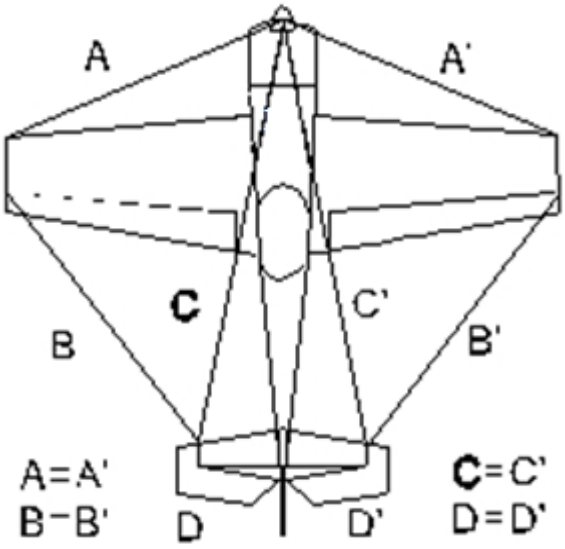
C .G Location



1 .Measure the CG from the leading edge of under wing is 13MM.

2 .Adjust the battery location.The CG can be moved around to fit your personal taste.

Symmetry Control



Adjust the aircraft and make sure both sides are symmetrical.Like the diagram shown.So that the plane is ready for flight.

Power on to trim your plane.

1. Range check the radio (test whether the Engine/Motor is running or not).
2. Ensure that the serveos and control surfaces move smoothly and in the correct direction.
3. Adjust the servo throw. The chart below is the recommended throws for the first flight. You can adjust the servo arms and control horn length later to fit yout flying style.

Control Throw:

	Surface	Throws	Exp
Common flying	Ailcron	20 degrees	25%
	Elevator	20 degrees	25%
	Rudder	30 degrees	30%

3 D flying	Aileron	40 degrees	45%
	Elevator	40 degrees	45%
	Rudder	45 degrees	45%

Engine Debugging

Trial run the engine to check its stability at high speed and low speed to ensure there are no problems with vibration on the model. Run the motor at high speed about 30 seconds.Check the engine and make sure the temperature is below the prescription of manufacturer.

Flight Checking

Check every angle and adjust them to correct position.Check all parks and make sure the installation is firm and reliable.Add some weight in either of wingtip to balance the left and right wings.Once everything is right.....