Assembly Manual For

Skyline *182*

www.pilot-rc.com

INTRODUCTION

Thank you for purchasing our Skyline 182. we strive to achieve the real Quick Builded and ARF aircraf .

It just requires the least amount of assembly of any kit that almost finished in factory. To obtain the perfect performance, both the design and manufacturing have been taken care with the highest quality from any hardware, covering ,wood and glue in the construction as well. By optimal weight and reliable construction, you will find this plane is really ideal for relaxing.

So we hope every effort and service we offer will make you feel easy and have a wonderful time in the pleasure of flying.

More information on website

www.pilot-rc.com

WARRANTY

■ 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

- **Do not regard this plane as a toy!**
- To ensure safety, please read the instruction manual thoroughly before assembly.
- 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!
- 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.
- Seek assistance from an experienced person or airplane model clubs in assembly, operation and maintenance to ensure successful training.
- **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 at:

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Phone:+86 760 88781293
FAX: +86 760 88780293
Address: No.34, Chengnan Er Road , Zhongshan city, 528400, Guangdong Province, China

Note: some photos in this manual is not for skyline182. but it is the same way to install.

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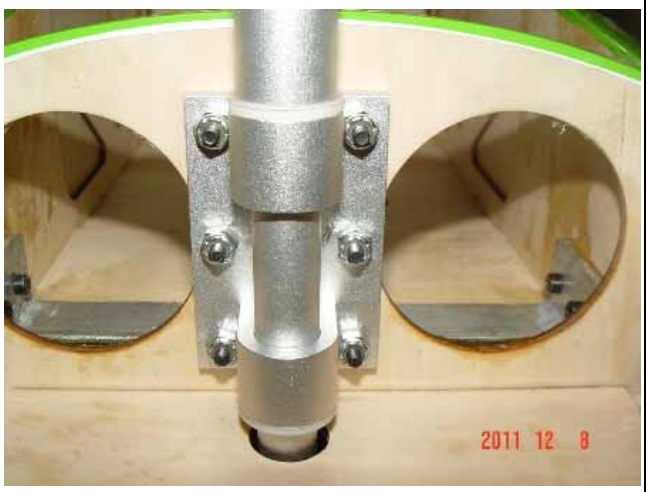
Front Landing Gear Installation

Front Landing Gear Assembly

1, there are 6 holes in the bottom of the engine box which are for the front landing gear.

2. Mount the front landing gear to the fuselage with 6 bolts.



3. Inside view of mounting front landing gear.

4 Outside view of mounting front landing gear.

Front Landing Gear Assembly

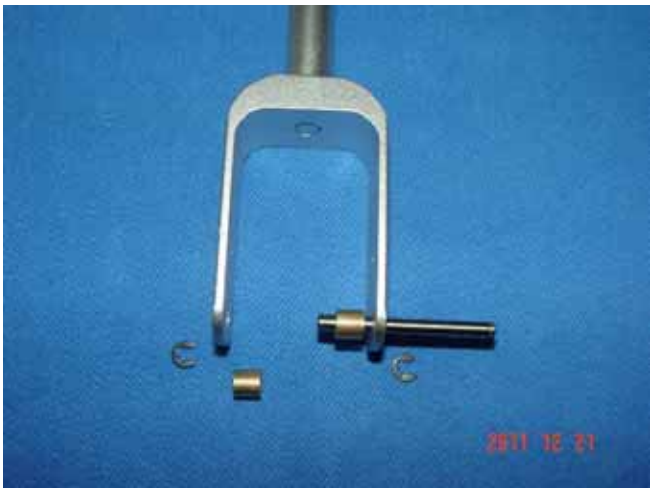
5. Install the servo for front landing gear. Put the servo to the servo bay which is on the back of the firewall.

6. Put the fiber glass arm on the top of the front landing gear. put the plastic washer on the top of the arm. Then install the circlips.

7. Adjust the rod length to make the front wheel in the middle place.

8. Finished view.

9. Take off this bolt.



10. Take off the bottom part of the landing gear .

11. Install the tire into the front landing gear with the circlips outside.

Install the front wheel pants:

Note: the front wheel pants are different shape from the rear wheel pants.

1. There is a hole on the top of the front wheel pants.

2. Put the pants into the front landing gear .

3. Screw two side bolt to fit the wheel pants.

Rear Landing Gear Assembly

1. Install the landing gear with the bolts and locking nuts. Do not over tighten the hardware.

2. Put two plastic parts for the landing gear into the landing gear before you install the wheel to the landing gear. But do not glue it to the fuselage and wheel pant.

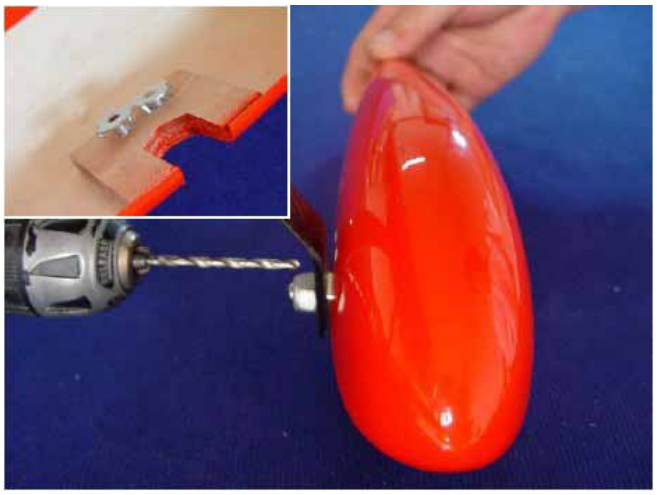
3. Install the landing gear axles with lock nut.

4. Make the flat sides of the axle bolt vertical with grond .Then tighten the lock nut against the landing gear strut

Rear Landing Gear Assembly

5. Install wheels and wheel collars using **Blue Loctite** on the set screws.

6. Drill the holes for the mounting bolts and install the blind nuts.



7. Finish the wheel pants mounting with the bolts.

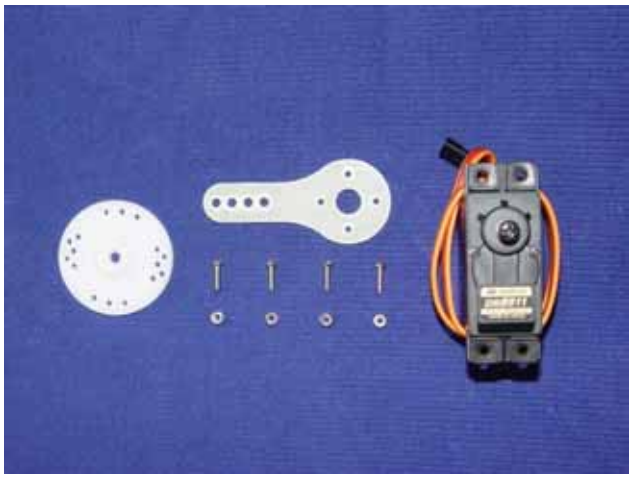
8. Glue the plastic part for the landing gear to the fuselage. Or screw it to the fuselage with the bolt.

9. Glue the plastic part to the wheel pants.

Wing Servo Assembly

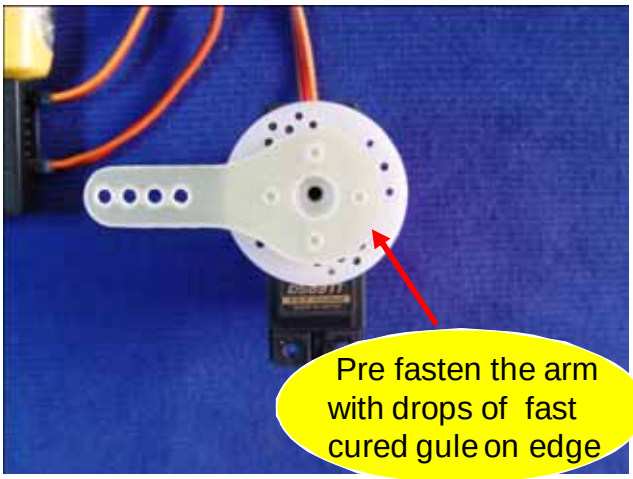
Servo Arm Installation

Minimum Request Servo:
15+ kg.cm / Metal Gear

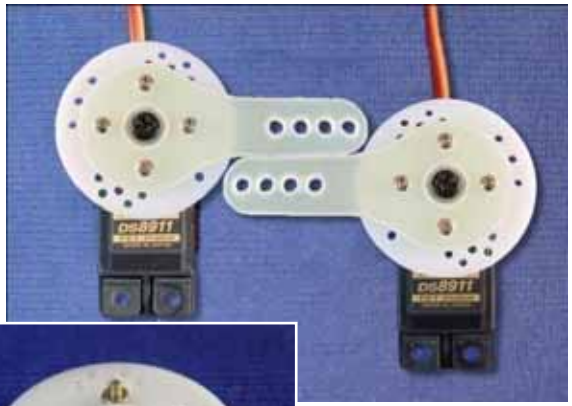


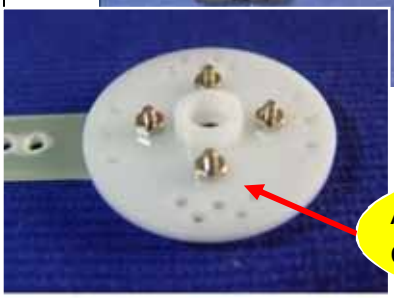
1. Turn on your transmitter and plug the servo into receiver. Ensure every channel is neutral

2. Ensure the servo arm is 90 degrees with servo as shown. Then mark and drill holes with 2mm bit

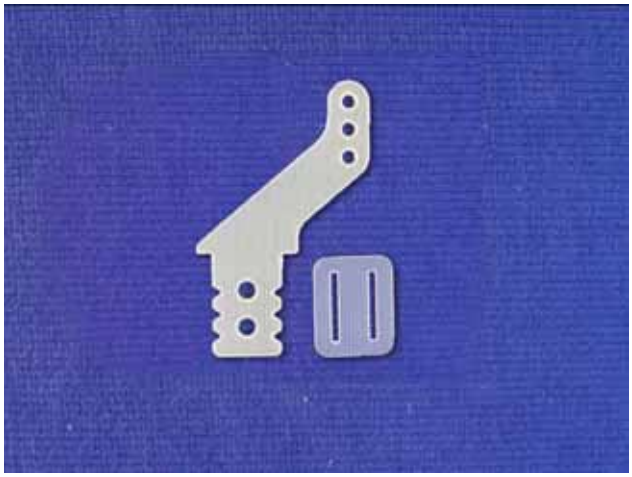


3. Mounting screws and nuts

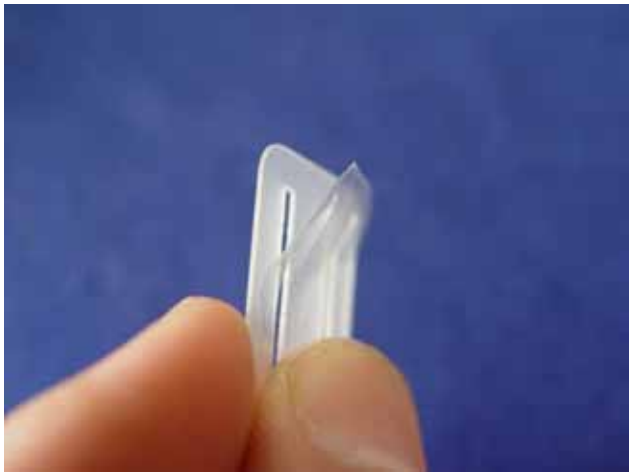




Aileron Control Horns

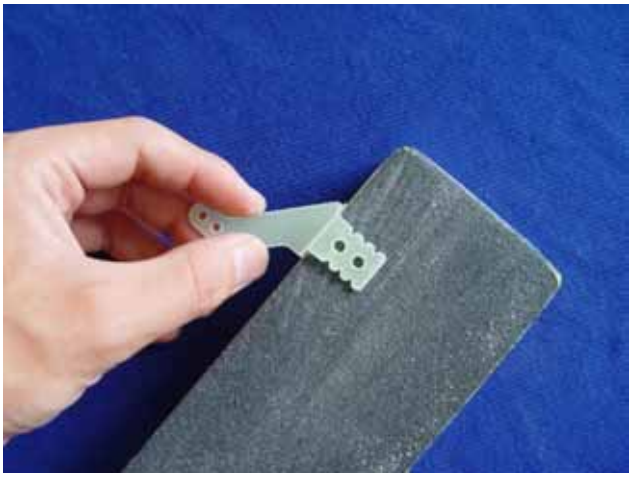


1. Tear off the cover on the horns and locking plates



2. Trace around the locking plate with kinfe and cut off the cover below.Then the pre-cut slots appear

3. Scuff the horns with a piece of sand paper for good glue bond.Then clean up the surface

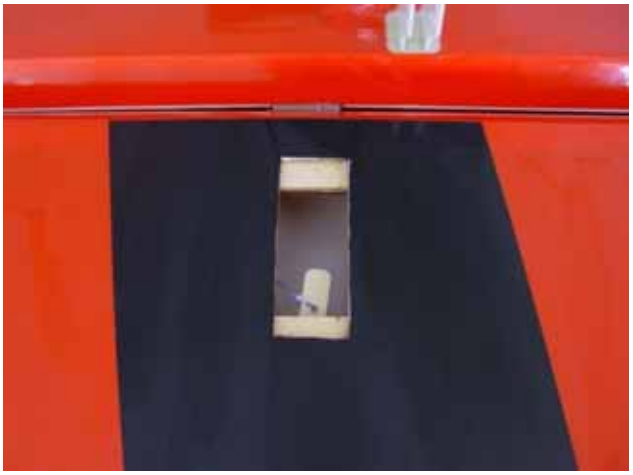


4. Apply the 30 minutes epoxy inside the pre-cut slot for horn ,and coat the horn with epoxy as shown

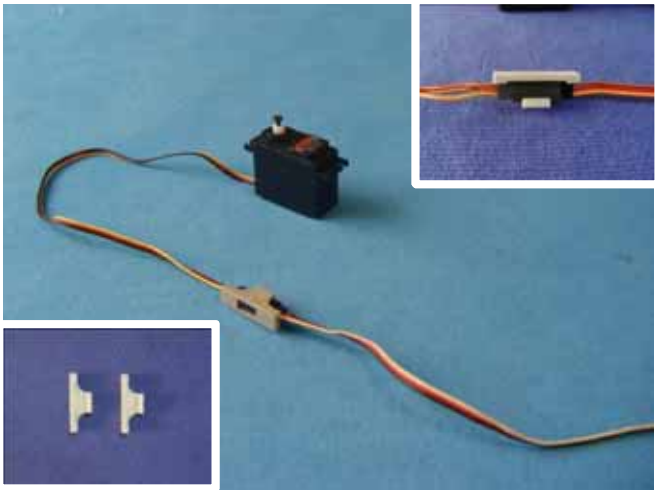
5. Slide the horn into slot slightly and Mount the locking plate in place.Wipe away excess epoxy with rubbing alcohol

Servo Installation

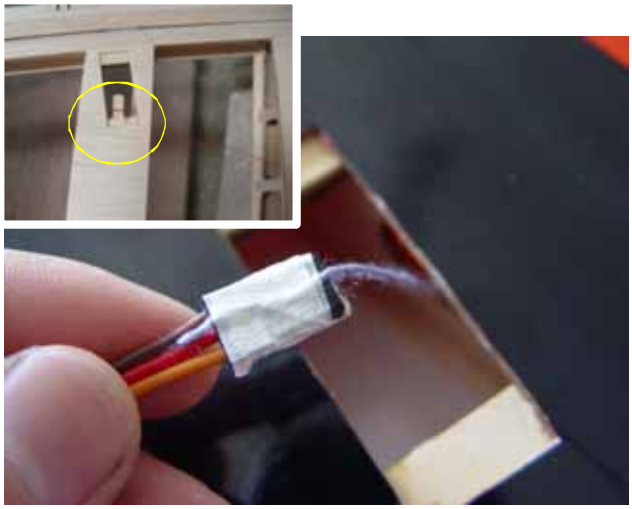
1. Cut out the cover for servo location carefully as shown



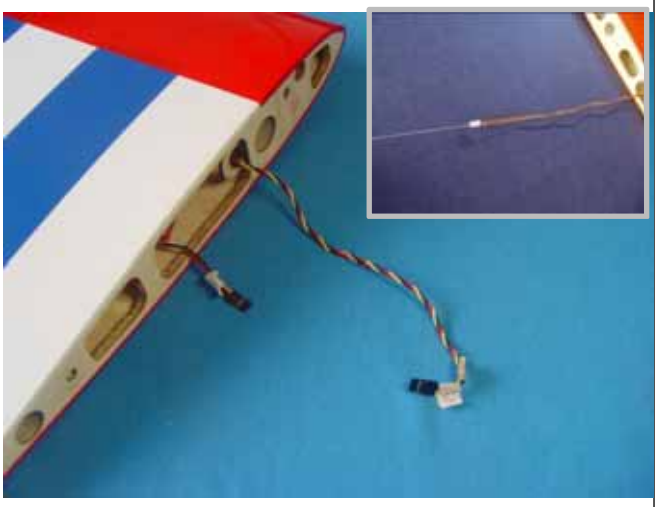
2. Lock the connector with the provided safety clip against vibration and loosened tension as shown



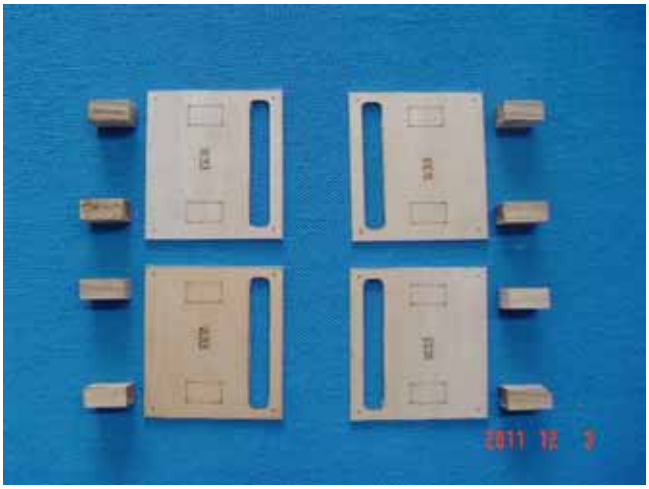
3. Cut out the cover for servo location carefully .Tape the lead to pull-string tightly. In order to ensure the servo wire can be pulled out without hanging up inside wing



4. Then put the extention lead through the root of wing

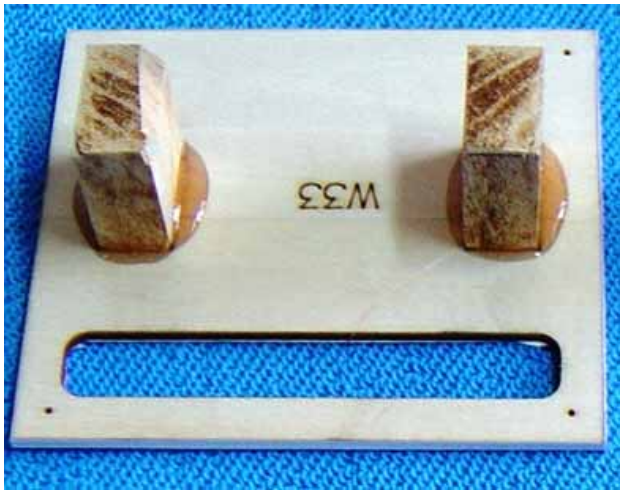


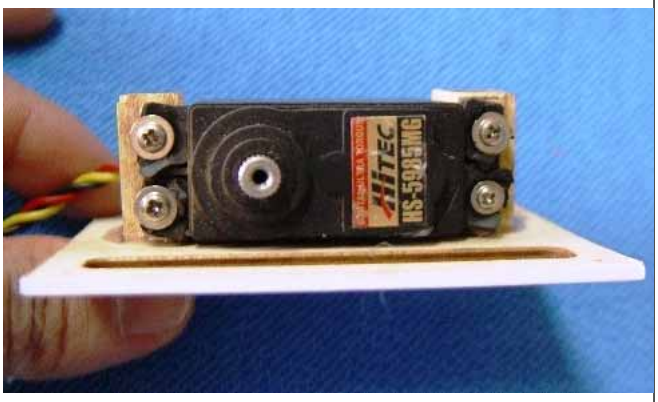
5. Find four sets of servo mounting plate.



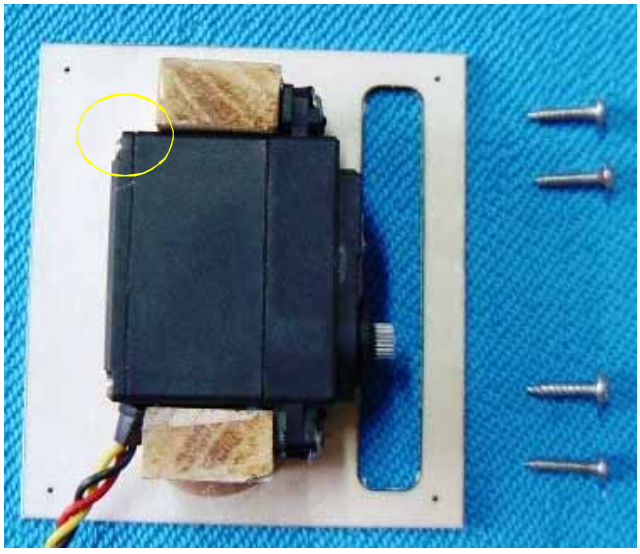
6. Glue two piece of wood to the servo mounting plate as shown

Note: Be sure to glue it strong enough.

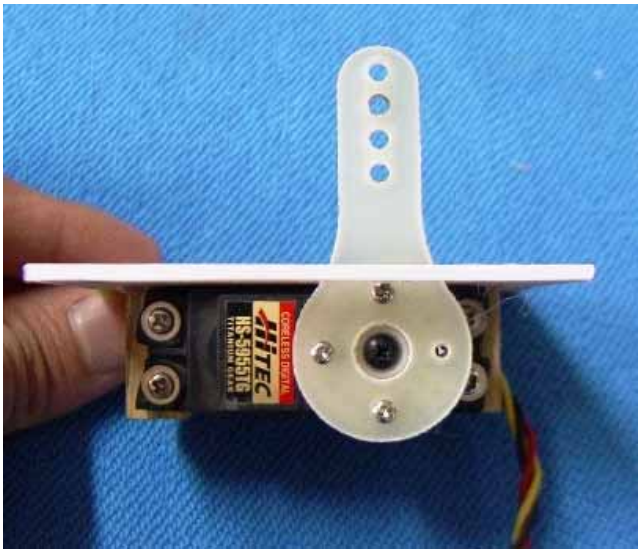




7. Use 1mm bit to drill the mounting holes. Then screw four bolts to fix the servo to the servo mounting.



8. Install servo arm.



6. Install the servo arms facing toward the wing edge and adjust pushrod in proper length to keep the aileron panel on the neutral position

7. Repeat all the step above for the flap .

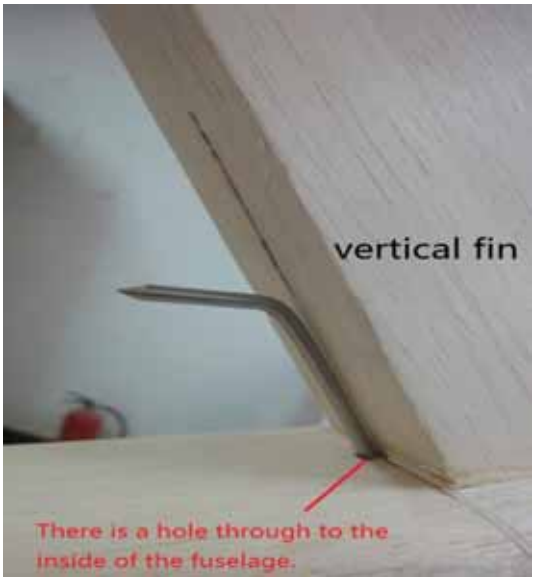
Rudder Assemby

Rudder Control Horn

1. The hinges on the rudder does not glue yet. So take off the hinges from the rudder. Then glue it to the vertical fin at the first. Mustl glue the hinges to the vertical fin at the first.

2. Open the cover plate on the bottom of the rear of the fuselage.

3. Put the rudder steel axle into the hole which is near the vertical fin.



4. Turn on your radio to keep the servo neutral. install the horn for the rudder steel axle and servo as the photos show.

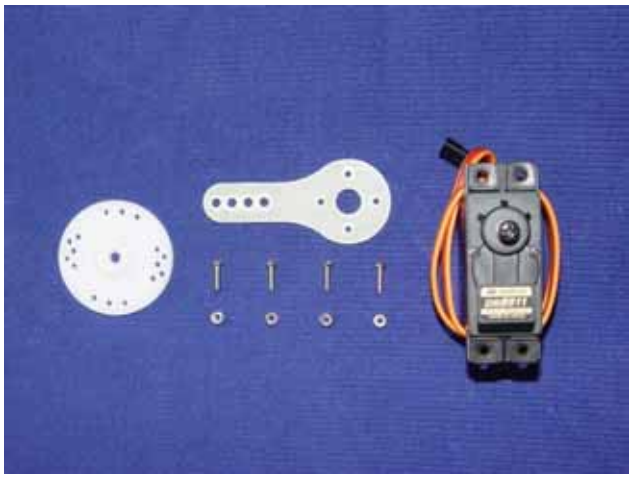
5. There is a hole on the rudder for the rudder axle.

6. Glue the hinge to the rudder. Push the rudder axle into the hole on the rudder when glue the hinge to the rudder.

7. Install the push rod and adjust it.

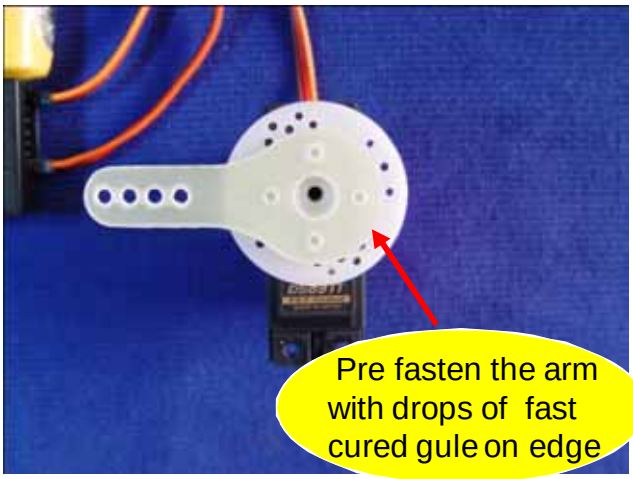
Servo Arm Installation

Minimum Request Servo:
180 in.zo / Metal Gear / Digital

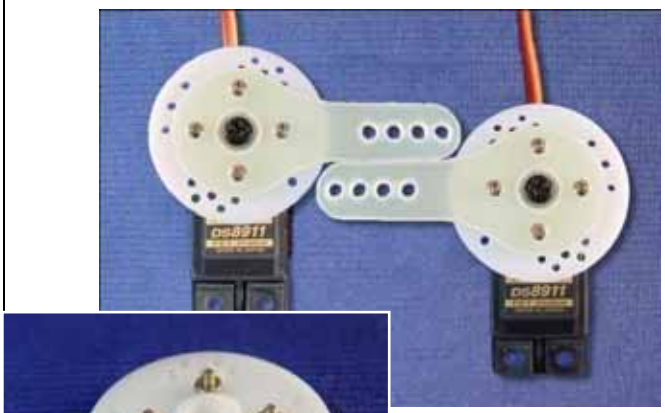


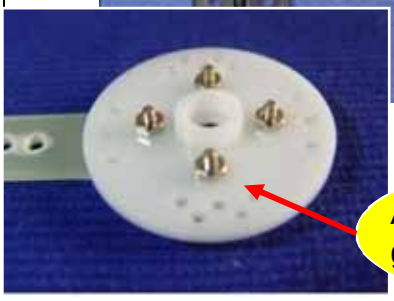
1. Turn on your transmitter and plug the servo into receiver. Ensure every channel is neutral

2. Ensure the servo arm is 90 degrees with servo as shown. Then mark and drill holes with 2mm bit



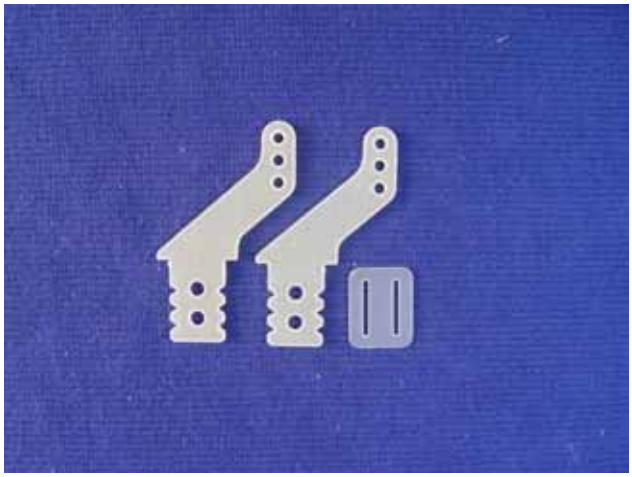
3. Mounting screws and nuts



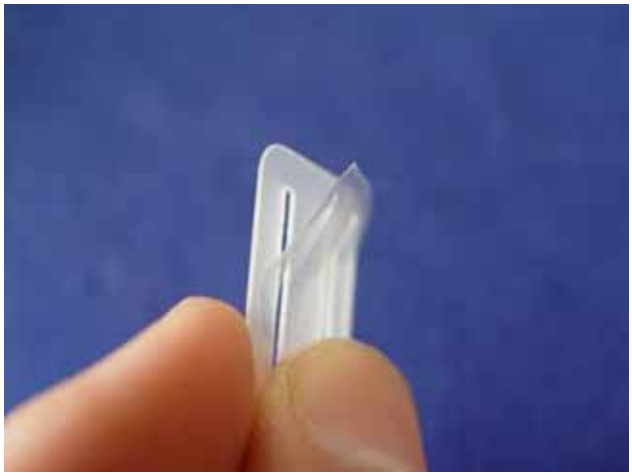


Elevator Servo Assembly

Elevator Control Horns



1. Tear off the cover on the horns and locking plates

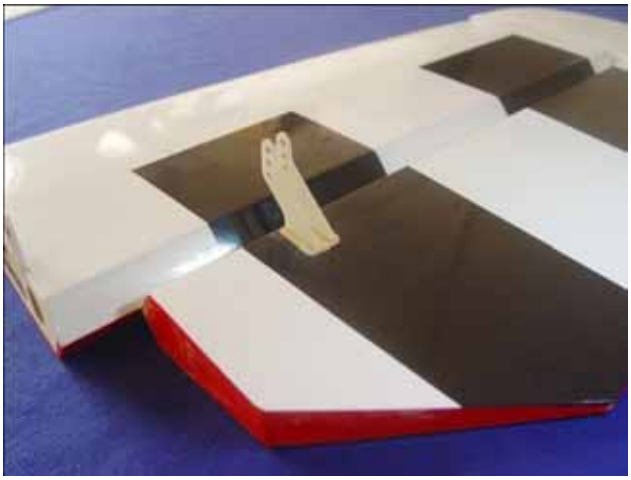


2. Trace around the locking plate with kinfe and cut off the cover below.Then the pre-cut slots appear

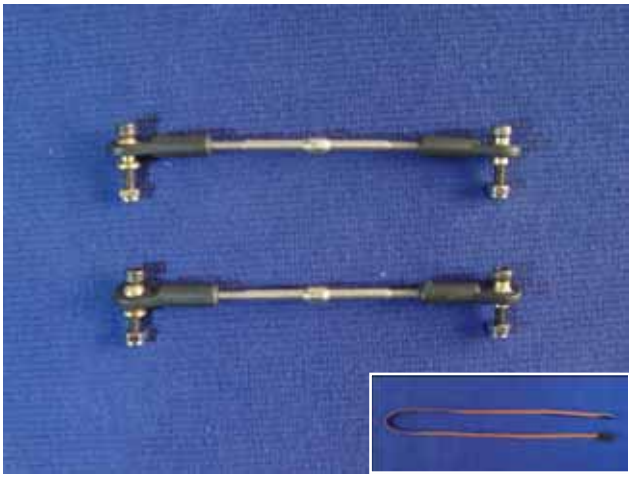
3. Scuff the horns with a piece of sand paper for good glue bond.Then clean up the surface

4. Apply the 30 minutes epoxy inside the pre-cut slots, and coat the horn with epoxy as shown

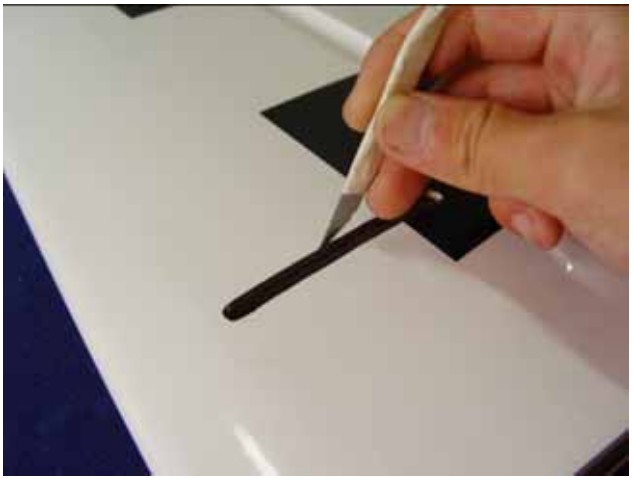
5. Slide the horns into slots slightly and Mount the locking plate in place. Align the right and left sides before epoxy has cured.Wipe away excess epoxy with rubbing alcohol



Servo Installation



1. Cut off the cover on the pre-cut slot

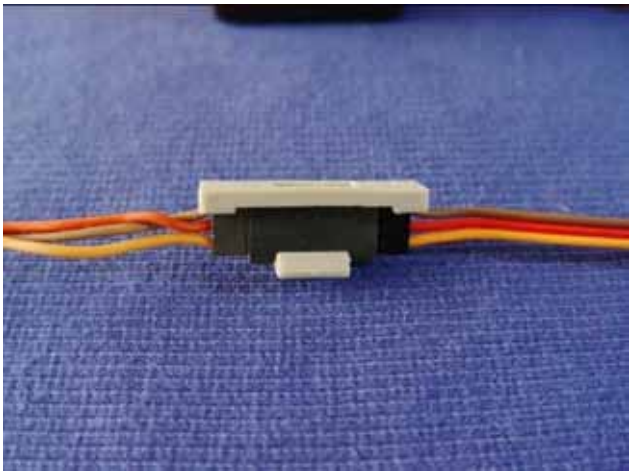


Elevator Servo Assembly

2. Install servos with mounting screws. Face the brand toward the rear of fuse.

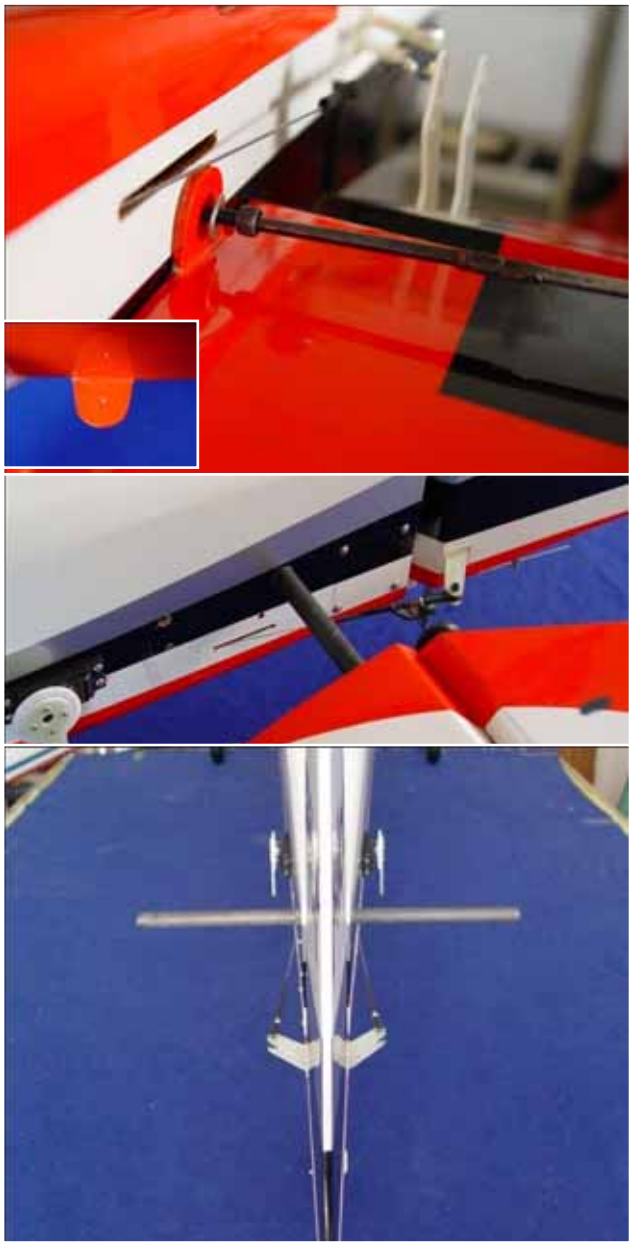
3. Install the servo arm with mounting screw and make it vertical with ground. Adjust pushrod in proper length to keep the aileron panel on the neutral position

4. Lock the connector with the provided safety clip against vibration and loosened tension as shown



5. Then put the extention lead through fuselarge

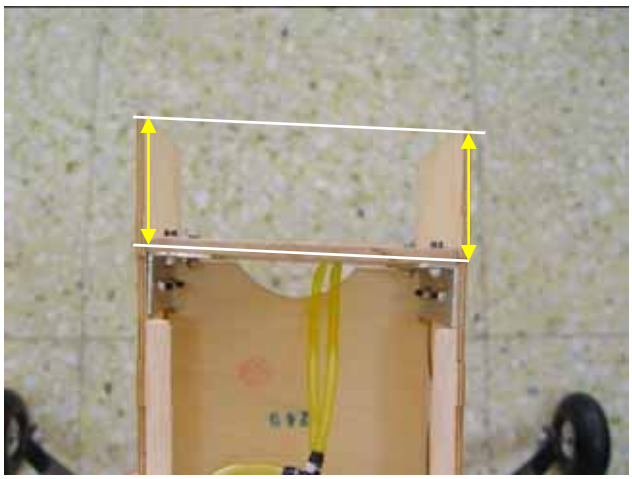
6. Install the stab with mounting bolts and washers



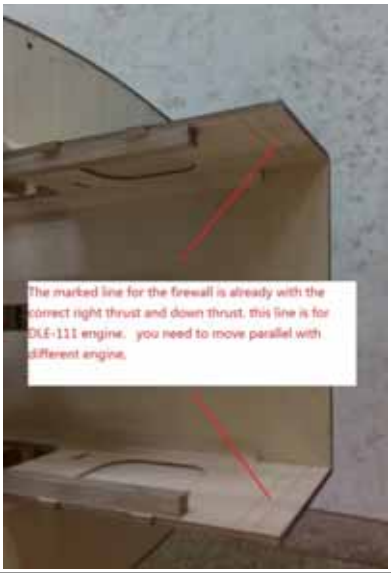
7. Repeat all the step above for the other stabilizer

Firewall Assembly

Note: The 3 degree **RIGHT** thrust and 2 degree **DOWN** thrust have been built, just keep the firewall same distance from the edge

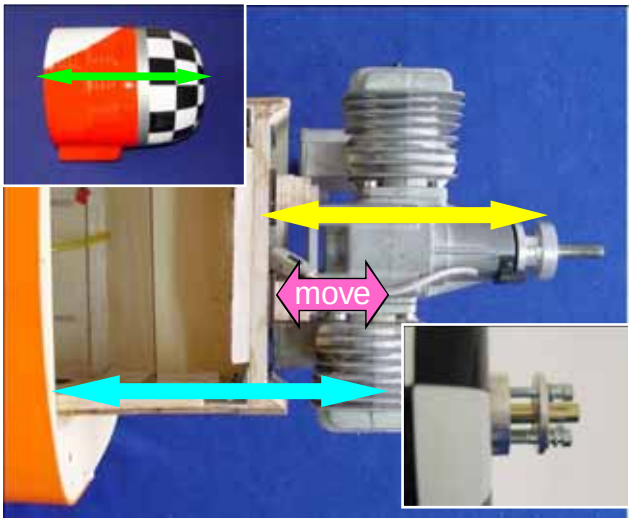


Note: There are the makred line for correct right thrust and down thrust on two side of the engine box .



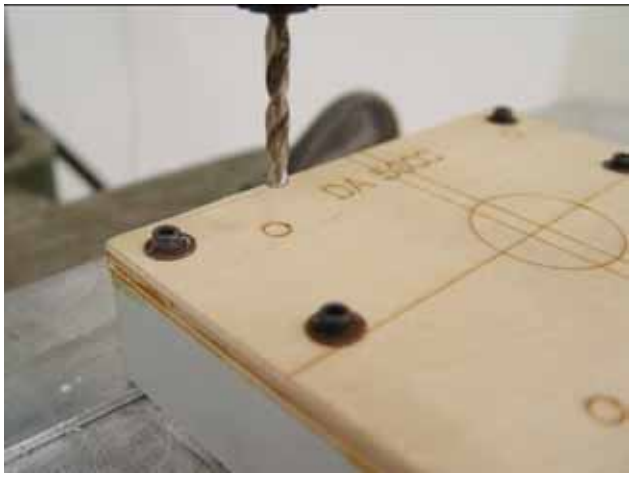
Note: The cowl is already pre-build for right thrust and down thrust. The center of the engine axle will be in the exact center of the cowl.

1. Measure the length of the engine (from the firewall to the prop thrust washer) , the cowl and the engine box for the proper distance allowing 1/4”to 1/2” from the edge of the cowl .Then mark the location

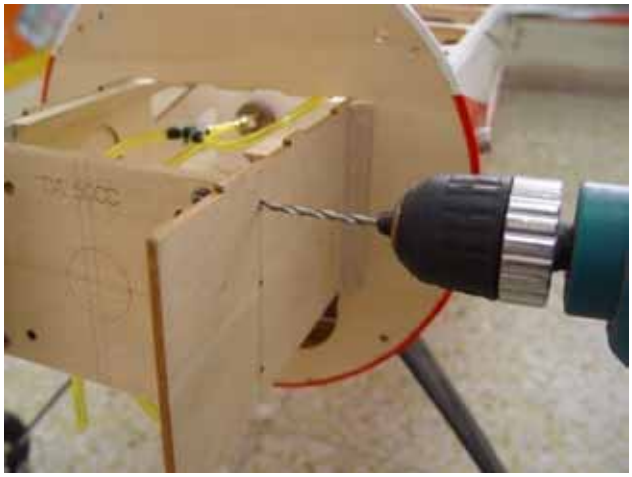


The excess plywood has been cut away

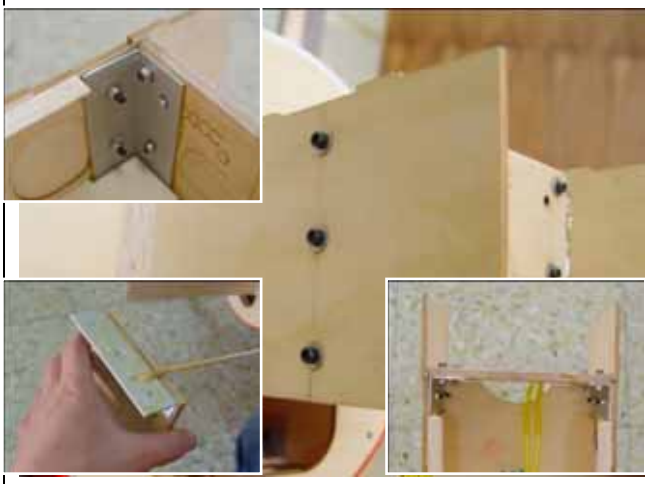
2. Drill the firewall according pre-set laser holes for DA-100. Otherwise measure your engine's mounting location.



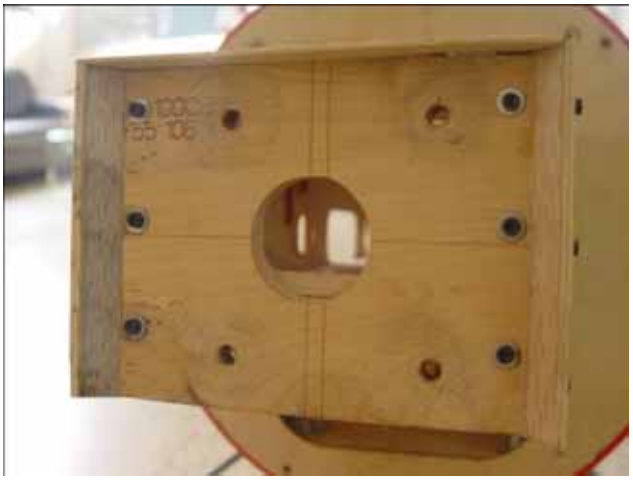
3. Drill the screw mounting holes aligning the line you have drawn both side as shown with the firewall taped or glued slightly in place(3mm bit)



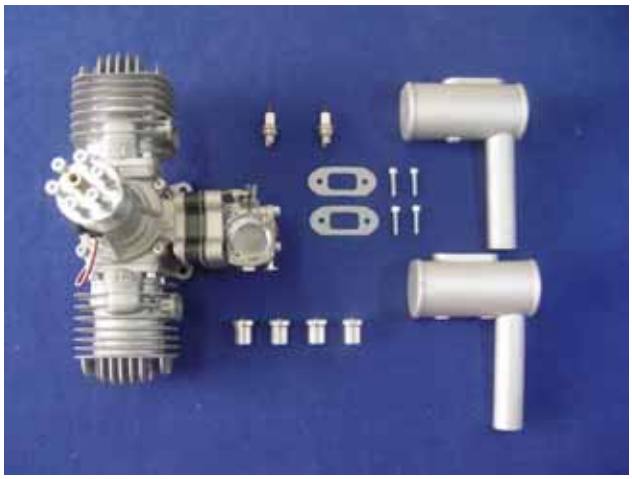
4. Epoxy the firewall with 30 minutes epoxy and use the mounting screws and locker nut to fasten it immediately as shown



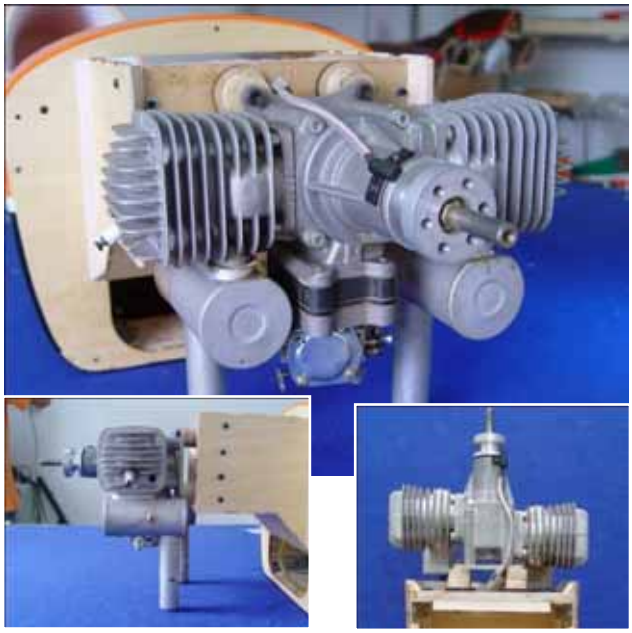
Note: Epoxy the triangular hardwood supports for reinforce.100cc firewall needs to cut off the center hole for air exit



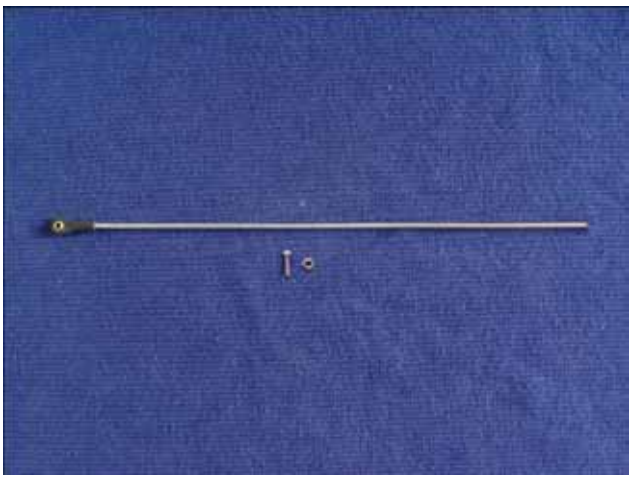
Engine Installation



Remember: Use Bue Loctite on all engine mounting screws



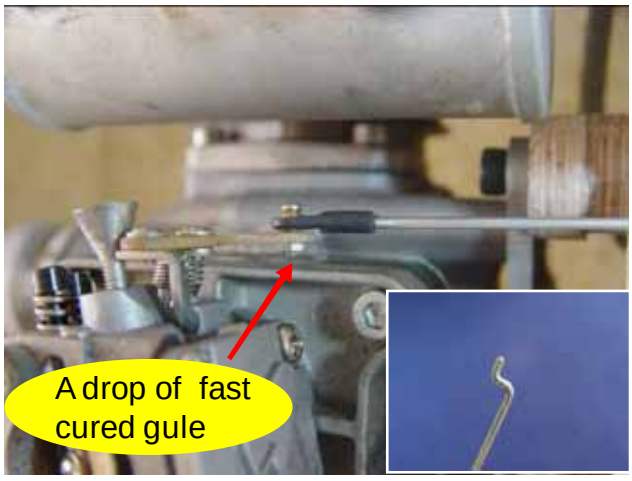
Throttle servo Installation



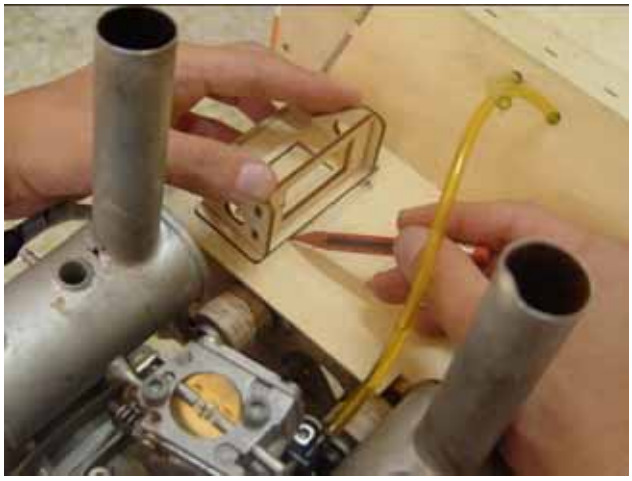
1. Install the engine throttle arm witn a little Blue Loctite

Throttle servo Installation

2. Measure and cut the extra wire
Then bend to a sharp of “z” as shown
Mount the throttle pushrod to engine.



3. Determine where the throttle servo mounting tray is going to be mounted on the engine box to get the straight and precise throttle linkage connection then make a mark

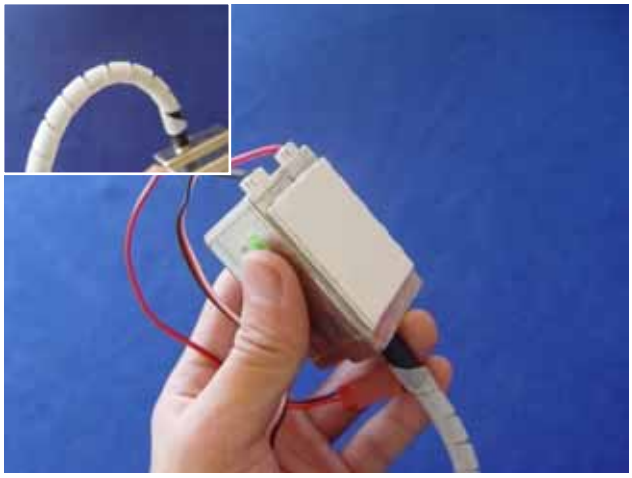


4. Epoxy the mounting tray in place and secure with self-tapping screws

5. Finish the servo installation with mounting screws

Ignition Module

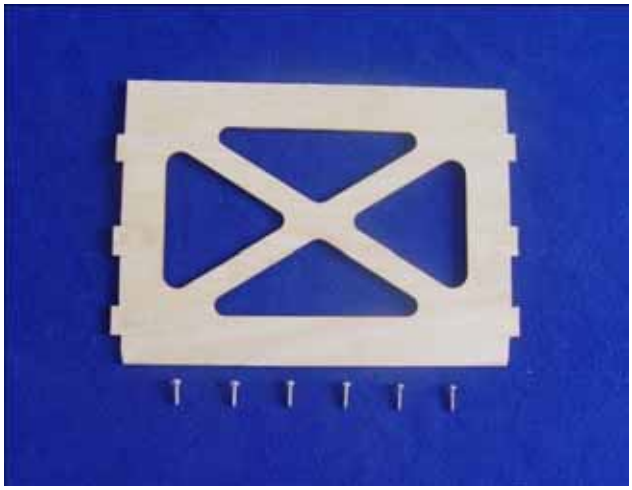
1. Tape foam rubber on bottom of ignition and attach to safety cover surplied as shown



2. Position the ignition outside the engine box to allow the spark plug leads to connect the engine without excess tension .Drill for Nylon tie

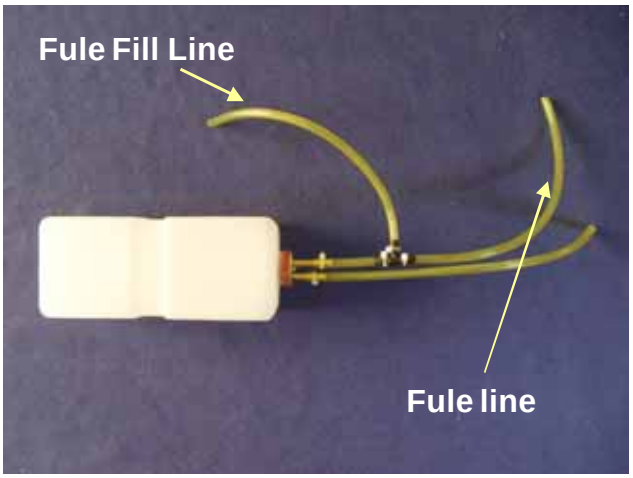
3. Lock the connectors with the provided safety clip against vibration and loosened tension as shown

Engine Box Hatch

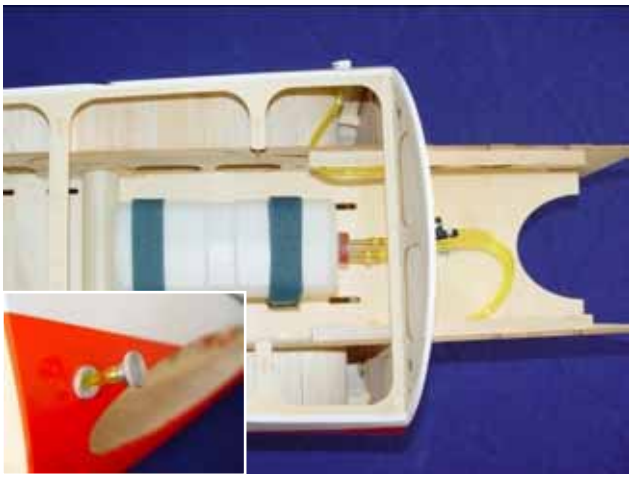


Epoxy the hatch in place and secure with self-tapping screws

Fule Tank and Dot



Fule tank and fule dot have been installed.Just tighten the velcro ties



Crowl Assembly

1. Make a pattern of the exhaust with a paper to hold its shape. Trial fit to make sure there is a minimum of 3/8” around the engine cooling.

2. Use a fiber cutting tool to rough cut the cowl and finish with a round sander

3. Ensue all the corner are rounded and not sharp 90 degrees against splitting under vibration. Trial fit till the cowl is right

Canister Assembly

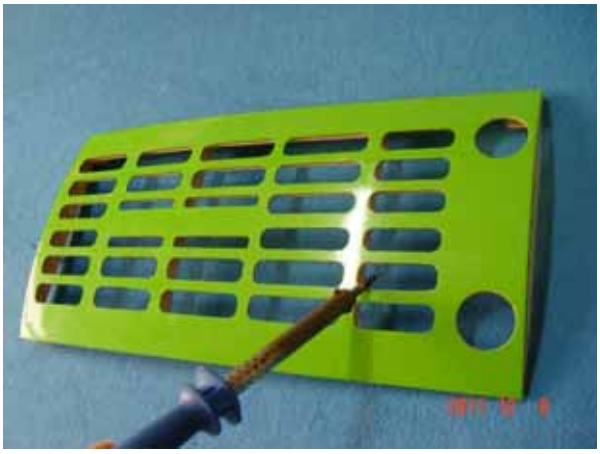
1. Put the canister to the mounting.

2. Glue the mounting to the canister room.

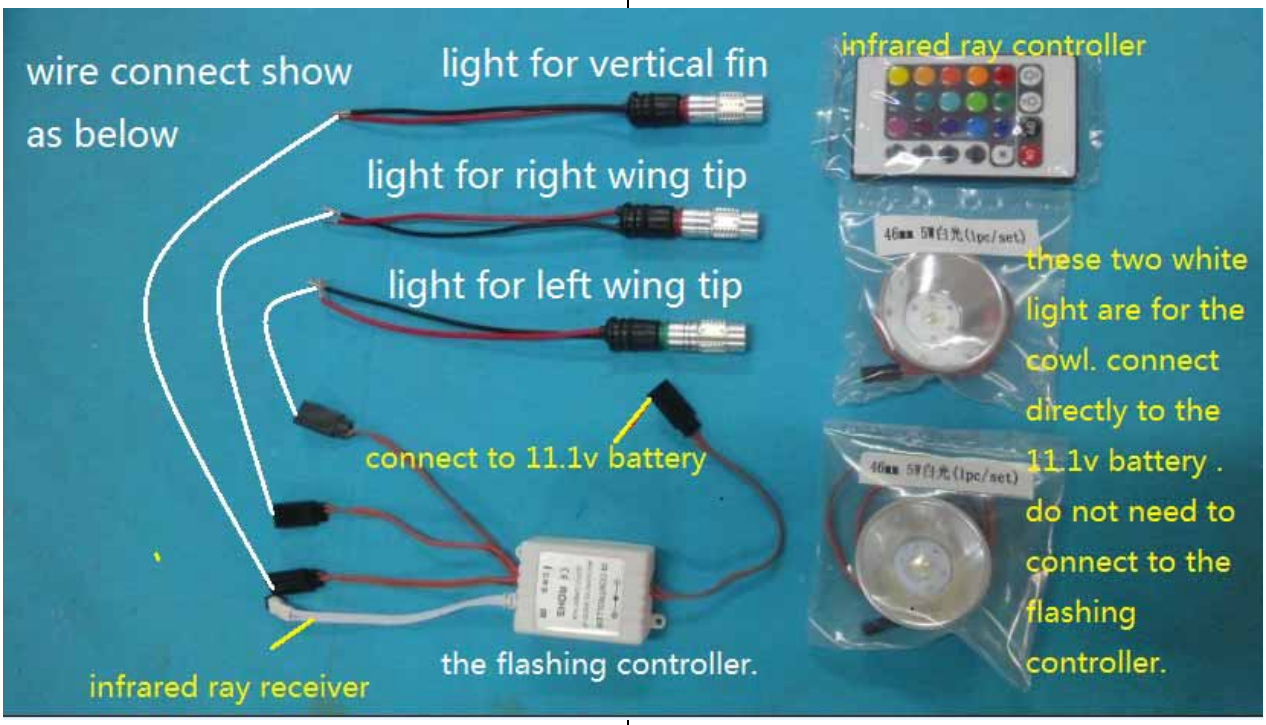
3. Install the headers.

Canister Assembly

4. Cut the covering on the canister room cover. This is very important because it will cool the engine.



1, All light already pre-install in the factory. You only need to connect the wire to the flashing controller. The lampstand for wing tip and rudder are pre-installed. You only need to put the light to the lampstand.



1. The plastic accessories as show below:

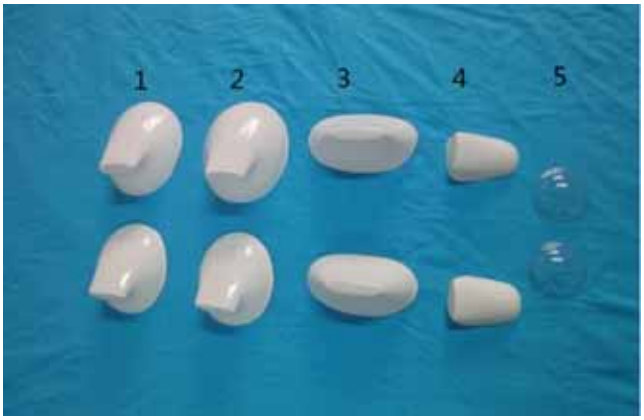
1 : for the wing strut which attach to the wing.

2: for the wing strut which attach to the fuselage. It is similar to the No.1 part. You need to put to the wing or fuselage so you will know which it is.

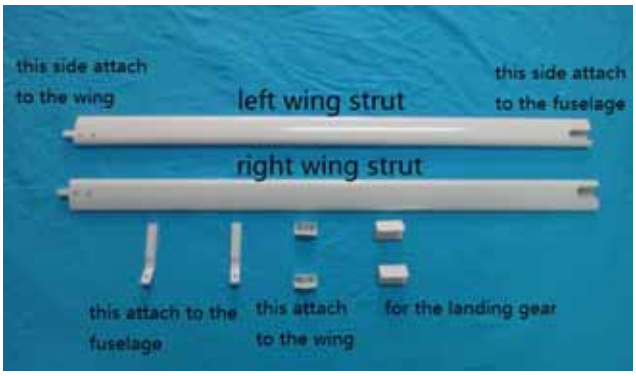
3: for the landing gear which attach to the fuselage.

4: for the wheel pants.

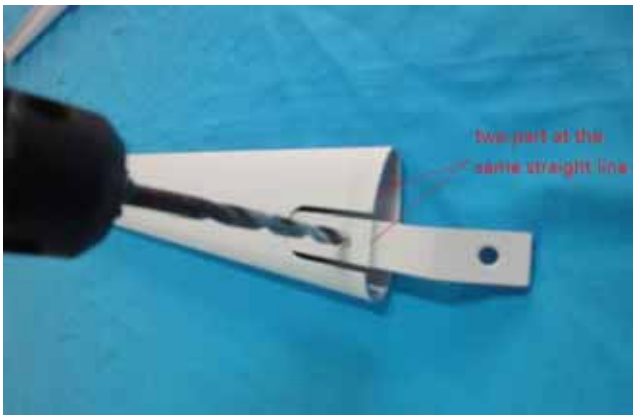
5: for the light on the cowl.



2. The aluminium parts show as below.



3. Put two aluminium parts at the same straight line. Drill two 3mm diameter holes.



4, lock the aluminium part to the fuselage with the bolt and the nut.

5, put the plastic part to the place. Glue it to the fuselage or screw to the fuselage with the bolts.

6, screw the aluminium part to the wing with the bolt. The wing has preinstalled blind nut. Then connect the wing strut to the wing.

6, cut one side hole of the No.1 plastic part which attach to the wing for the wing strut. So you can close the wing strut when you do not fly.

7, Glue the plastic part to the wing or screw to the wing with the bolts.

the wing strut can close like the left photo show.

8. There is a pre-dirll hole on the mid of the landing gear.

9. Screw the aluminium part to the landing gear with the bolt and the nut.

CG And Control Throws

Center Of Gravity

The center of gravity is marked inside the fuselage. Near to the wing tube as shown.

The First Flight set up

Throttle: Adjust idle –full

Elevator: 30 Degrees on High rate
12 Degrees on Low rate

Aileron: 30 Degrees on High rate
12 Degrees on Low rate

Rudder: 30 Degrees on High rate
20 Degrees on Low rate

■ After you set the given control throws up and have a few flights under you belt, you can change the amounts as well as moving the CG as you like.

■ Learn to use exponential of about 40 percent on your elevator to make great landings and not over control as highly aerobatic plane. Use 70 percent exponential on High Rate!

- Make sure you have the right model programmed into your transmitter
- Check the direction of each control surface for correct operation 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 as per your radio manufactures instructions your body should be between you and the plane at 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 fight and check for damage if you made a bad landing your first time
- Have an experienced pilot fly it for 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 burn off by bragging to your fellow members how good it flies
- Fly low and at a medium speed on your first few flights
- 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 sure about the CG!
- Fly 3D maneuvers high in the beginning and not close to people, planes or runways. Being a center of the runway hog does not endear you to other modelers.