

MONSUN 50cc & 100cc

Manual



Color B



Color G



Color O



Color W



Color R

Caution!

You should not regard this plane as a toy!


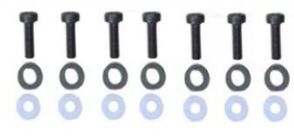
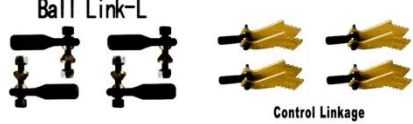




















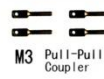
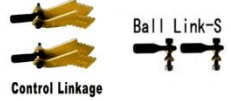


To ensure safety, please read this instruction manual thoroughly before assembly.

Building and operating a model plane requires diligent practice and correct guidance. An inexperienced flyer can cause serious injury and property damage.

Seek the assistance of an experienced RC pilot or model airplane club for help with assembly, operation and maintenance to ensure your flying experience is both enjoyable and safe.

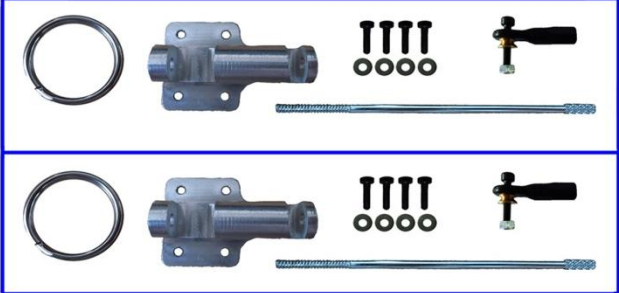
Fly only in AMA (Academy of Model Aeronautics) approved areas. Approved areas or areas approved by the Model Association of your country.

Note: the accessories coming with airplane may not same as below list. Please inquire it with the distributor.

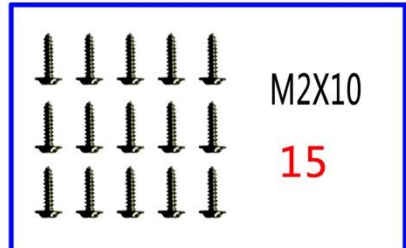
<p>Fuselage parts</p> <p>Rudder Horn</p> 	<p>Canopy</p> <p>M3X 16 Socket Screw M3 Washer</p>  <p>Ball Link-L</p>  <p>Control Linkage</p> <p>3X65mm Push Rod</p>  <p>Hook & Loop Fastening Tape</p>  <p>750CC Fuel Tank</p>  <p>Throttle Servo Tray</p>  <p>2mm Linkage Stop 1</p>  <p>2X200mm Throttle PushRod</p> 	<p>Landing Gear</p>  <p>M5 Lock nut</p> <p>M3X 16 Socket Screw</p> <p>Pu Wheel 5"</p>	
<p>Main Wing parts</p>	<p>M6X50 Nylon Screw</p>  <p>Carbon Wing Tube 29X32X1300mm</p> 	<p>Ball Link-L</p>  <p>Control Linkage</p>	<p>3X65mm Push Rod</p>  <p>Control Linkage</p> 
<p>Elevator parts</p>	<p>M3X 16 Socket Screw</p>  <p>Carbon Stab Tube 17X19X515mm</p> 	<p>Ball Link-S</p> 	<p>3X65mm Push Rod</p>  <p>Control Linkage</p> 
<p>Rudder parts</p> <p>Ball Link-S</p>  <p>Control Linkage</p> <p>3X110mm Push Rod</p> 	<p>or</p> <p>Dia. 0.6mm Wire 1600mmx2</p>  <p>M3 Pull-Pull Coupler</p>  <p>Control Linkage</p>  <p>Cable Copper Fixer 8</p>  <p>M3X 16 Socket Screw</p> 		

TOM

2013.6.10

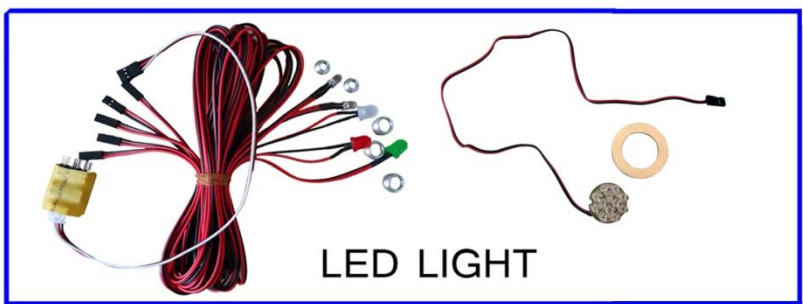


M2X10



M2X10

15



LED LIGHT



LED light

Find out the LED light system.

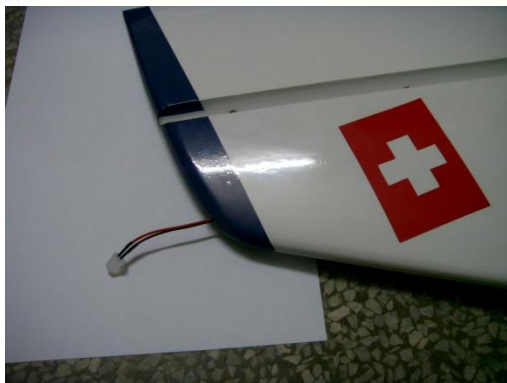
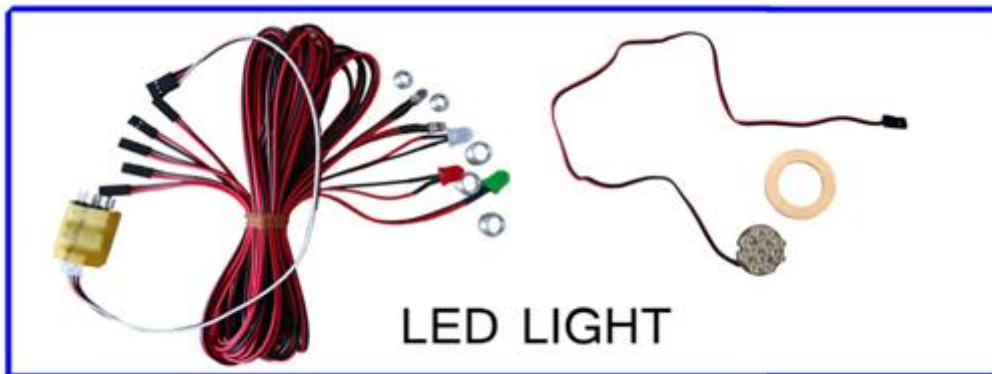
Insert the LED light into the aluminum holder as shown. The light for the rudder donot need the aluminum holder.

Find out the holes for the LED light in the wings and rudder.

The voltage for the light is 6V.

Find out the hole for the LED light on the top of the rudder and cut it out.

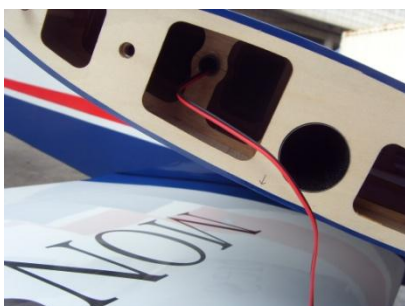
Insert the LED light wire from the top of rudder, and glue it onto the rudder.



For the wing LED lights, it has aluminum holder.

Find out the LED cover for the wings. Cut them into the shape as shown, by the line the plastic cover has, about 10cm from head to end of the plastic cover.

Pull the LED light wire out from the wire tube, which has made by factory.

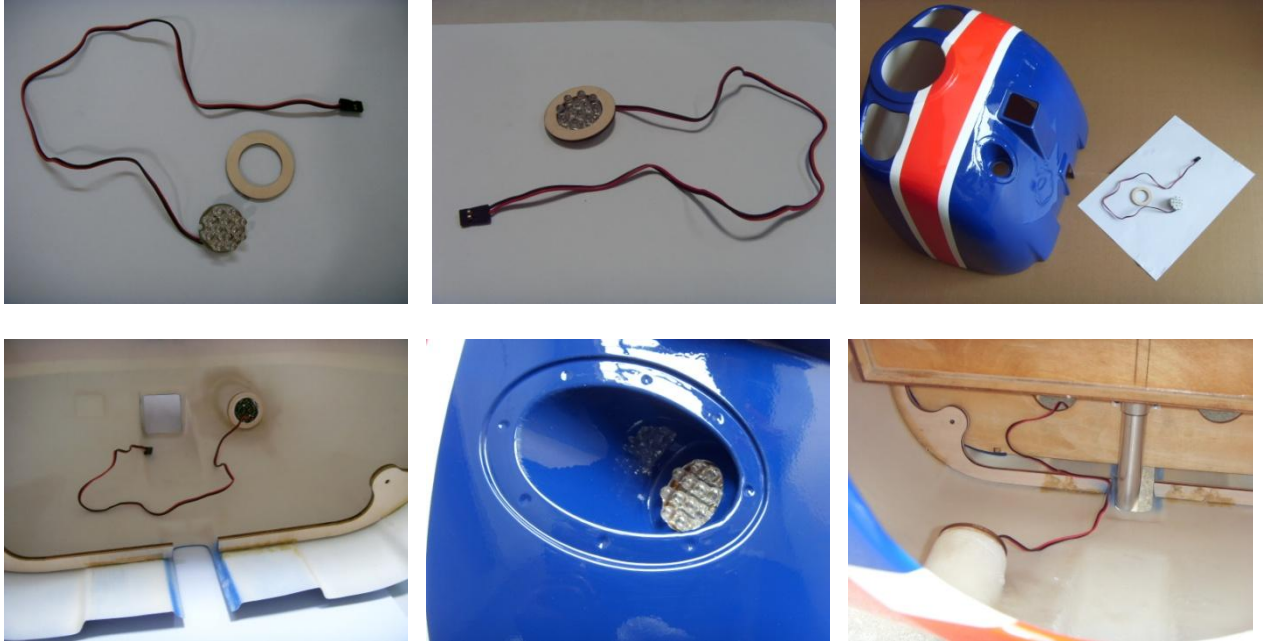


Find out the round LED light with a round plywood ring for the cowl light.

Glue the LED light with the plywood ring together as shown.

Find out the holes in the cowl, and glue the plywood onto the cowl in the inner of the cowl.

Pull the light wire through the holes under the engine mount.



Landing Gears

Find out the front landing gear.

Use pliers to take off the ring on the top of the landing gear.

Insert the front landing gear into the hole at fuselage head. And then lock the landing gear by ring and install the CF servo arm on it.

There is a aluminum angle for you to enhance the part that front landing gear to connect with fuselage head.

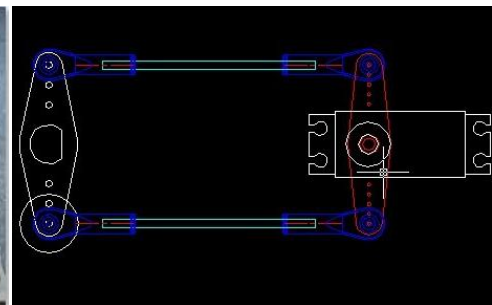
Put the bent angle under the fuselage, in the position to install the canister, and locked it with screws to the upper plywood.

And the front face is locked to the front landing gear turning holder.

Connect the CF servo arm and front landing gear servo with pushrod and ball links.

There is also aluminum sheet on the middle landing gear mount.

Lock the CF landing gears on each side of the fuselage by screws.



Install the landing gear axles with lock nuts but do not tighten yet.

Install the wheel and tighten the collar set screw using a drop of Blue Loctite. Make sure the wheel rotates freely.

Slipping the wheel pant over the axles and mark the position for the two attached bolts.

Drill the holes for the attached bolts and install the blind nuts as shown.

Mount the wheel pants and secure the bolts with a drop of Blue Loctite.



There is a decoration on the back of the fuselage tail. Stick it onto the fuselage as shown.



Main Wing

Remove the covering from the servo position. Find out the slot pre-opened for rudder control horn, and remove the film as shown.

Fit the control horn into the slot, glue the horns into the aileron of each side.

Drill holes for the servo mounting screws and harden the wood around the holes with a drop of thin CA.

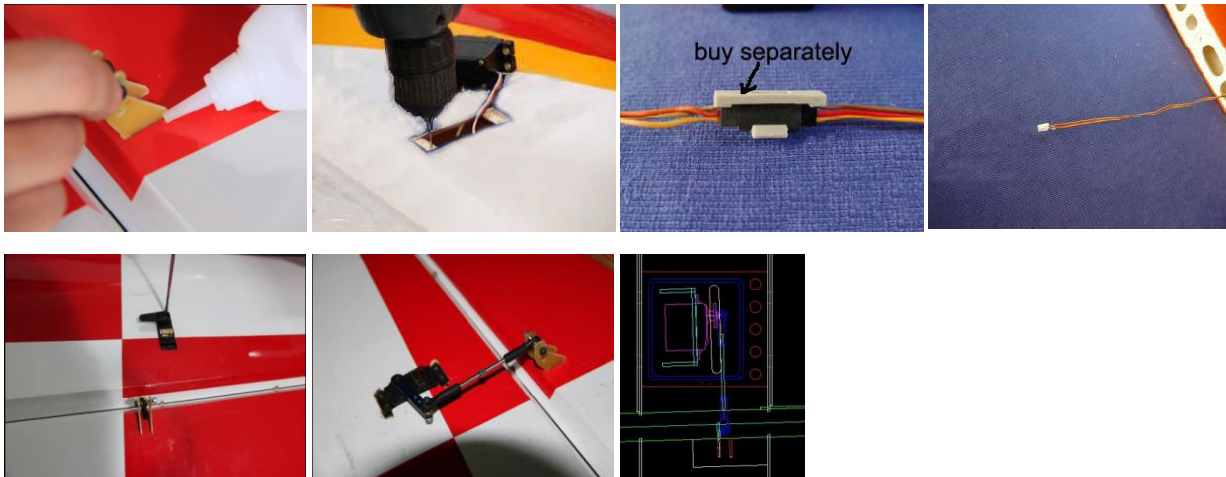
Use the safety clips (buy separately) to secure the servo and servo extension connected.

Put the servo into the servo hole, and mark the position for the screw to fixup the servo. Pull the extension lead through to the root of the wing.

Drill holes for the servo mounting screws and harden the wood around the holes with a drop of thin CA.

Install the control horn. Adjust the horn and servo arm. Fix the horn in place firmly. Install the ball link and push rod . Make sure it's firm and flexible.

Repeat the previous steps for the other wing. Please install the wing tube and wing bolts in the final assembly.



Stairs

Find out the stairs and the self-tapped screw.

Lock the stairs onto the wings at back side.



Elevator and Rudder Installation

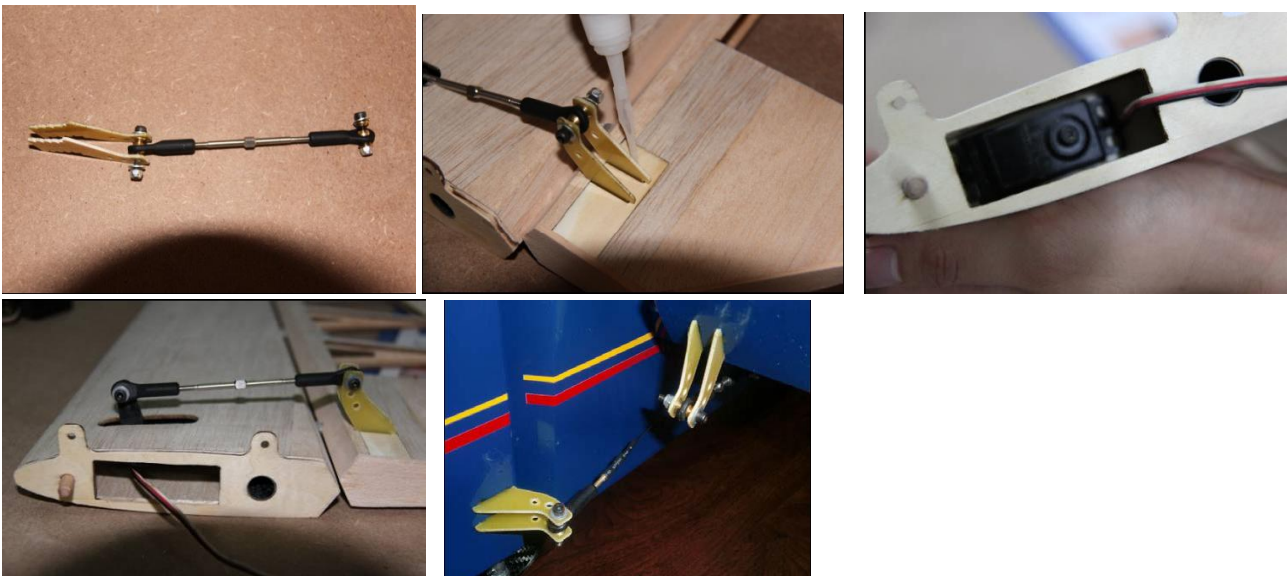
Connect the pushrod and control horn as shown.

Put the control horn into the slot pre-opened; glue it to the stab, on each side

Install the elevator hidden servo as shown. Connect the servo and the pushrod as photo

Repeat the previous steps for the other wing.

Install the stabilizer tube and bolt them to the fuselage.



Two way to control the vertical fin : pushrod or pull pull wires

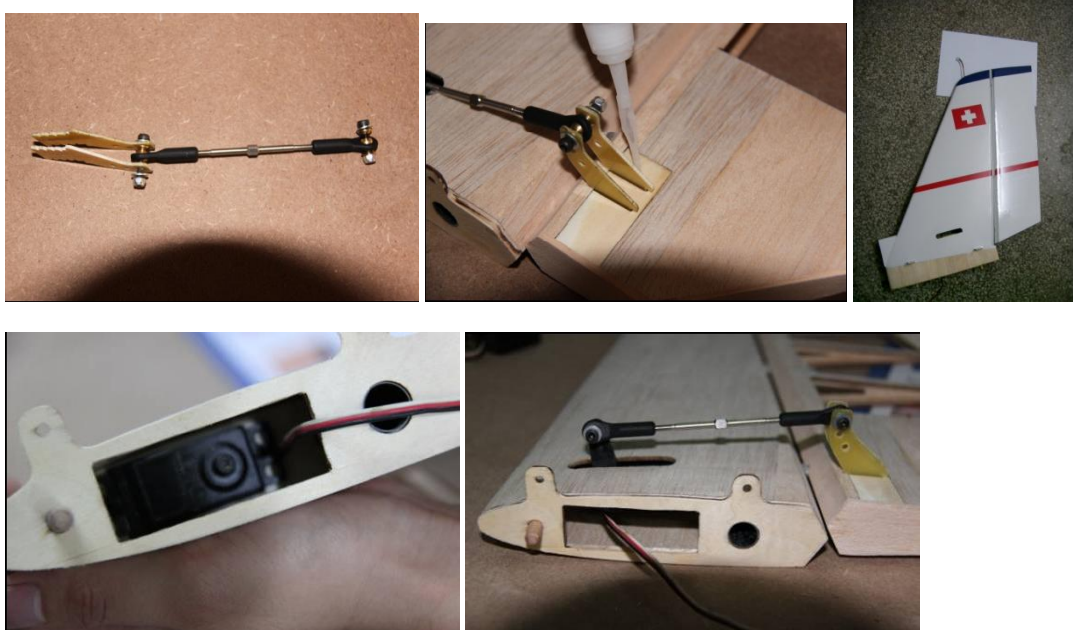
The pushrod way:

Connect the pushrod and control horn as shown.

Put the control horn into the slot pre-opened; glue it to the vertical fin on each side

Cut out the servo arm hole on the rudder.

Install the rudder hidden servo as shown. Connect the servo and the pushrod.



Cut out the film on the tail of fuselage for the rudder position.

Insert the rudder into the fuselage tail. And screw it onto the fuselage.

There is also a wood decoration on the top of the fuselage. Connect it to the rudder front part. And glue the wood part onto the fuselage.



The pull-pull wire way:

Find out the slot pre-opened for rudder control horn, remove the film

Fit the control horn into the slot, measure the correct length for it

Cut the longer part. Glue the horns into the rudder of each side

Repeat the same method on the other side of the rudder.

Thread the cable connector halfway into the ball link .

Connect the pull-pull wire and control horn with ball link

Drill holes for the mounting screws. Fit the servos as shown with the servo label facing the rudder. Harden the area around the holes with a drop of thin CA.

Use brass crimps on each cable and thread, the cable through the end of the pullpull connector.

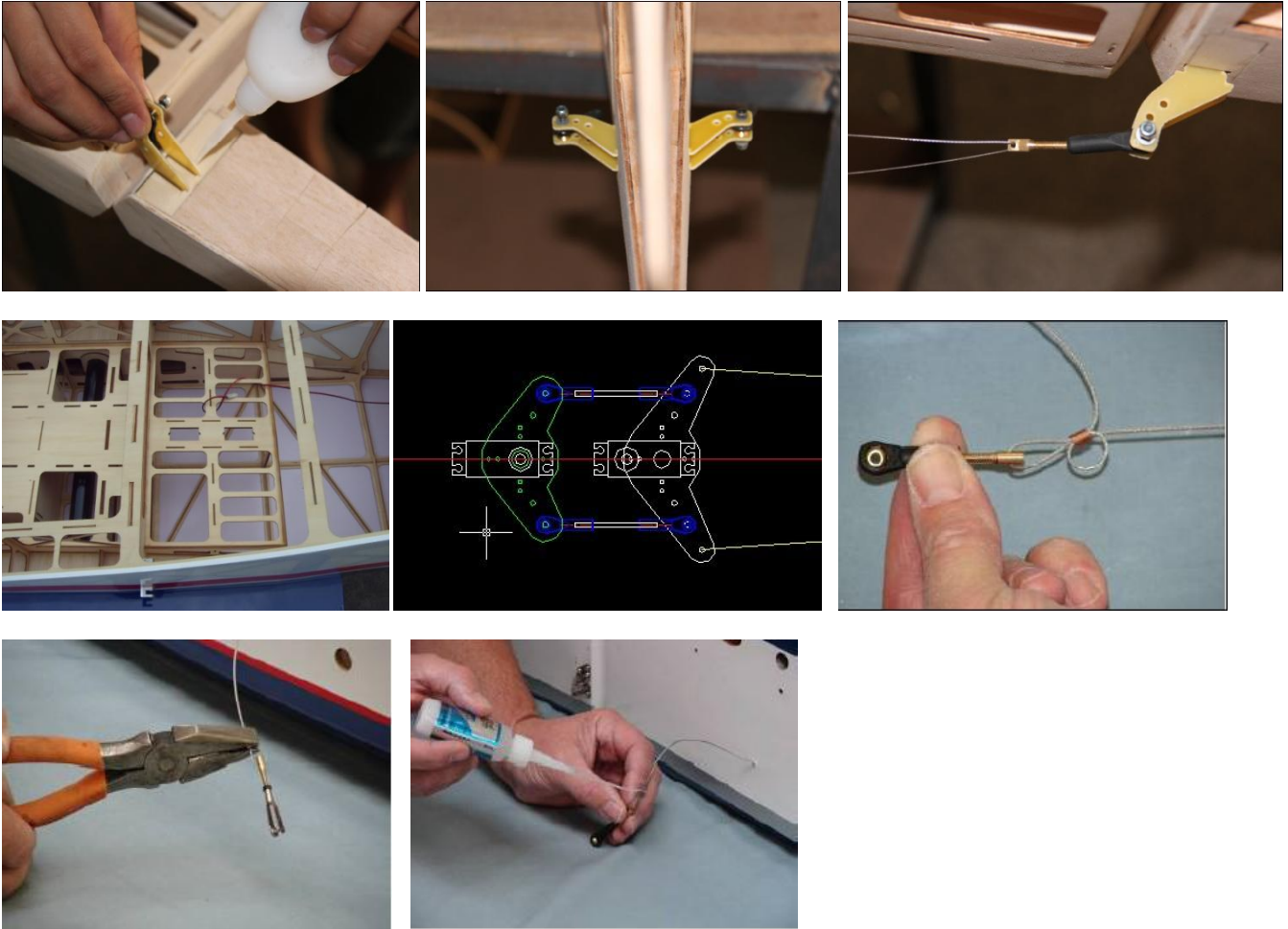
Crimp the brass tube with a crimping tool or pliers

A drop of thin CA may be applied to the brass tube to help secure the cable
Install the rudder ball links with bolts and locking nuts.

Check the pull-pull cables.

Rudder and the rudder servo should both be in the neutral position.





Engine Installation

Pre-marked holes for the engine, and also there is center line for you to measure if your engine is fit for the screw holes or not.

Insert the bolts through flat fender washers, the firewall and into the engine stand offs. Tighten firmly. Secure mounting bolts nuts with Blue Loctite.

Use a bit to drill a pushrod exit hole on the firewall in line with the engine carburetor throttle arm.

Attach the ball link to the throttle pushrod and secure to the carburetor throttle arm with a bolt and nylon lock nut.

Insert the throttle servo into the servo mounting tray with an output arm forward.

Mark a line for the throttle servo tray, then glue it to the fuselage.

Use a drill to drill the servo mounting holes. Install the servo with servo screws.

Insert the throttle pushrod into the servo easy link. Move the servo arm to the center position. So that carburetor is half open. Tighten the easy link set screw.



Muffler and Canister

Find out the two pcs of plywood for the canister.

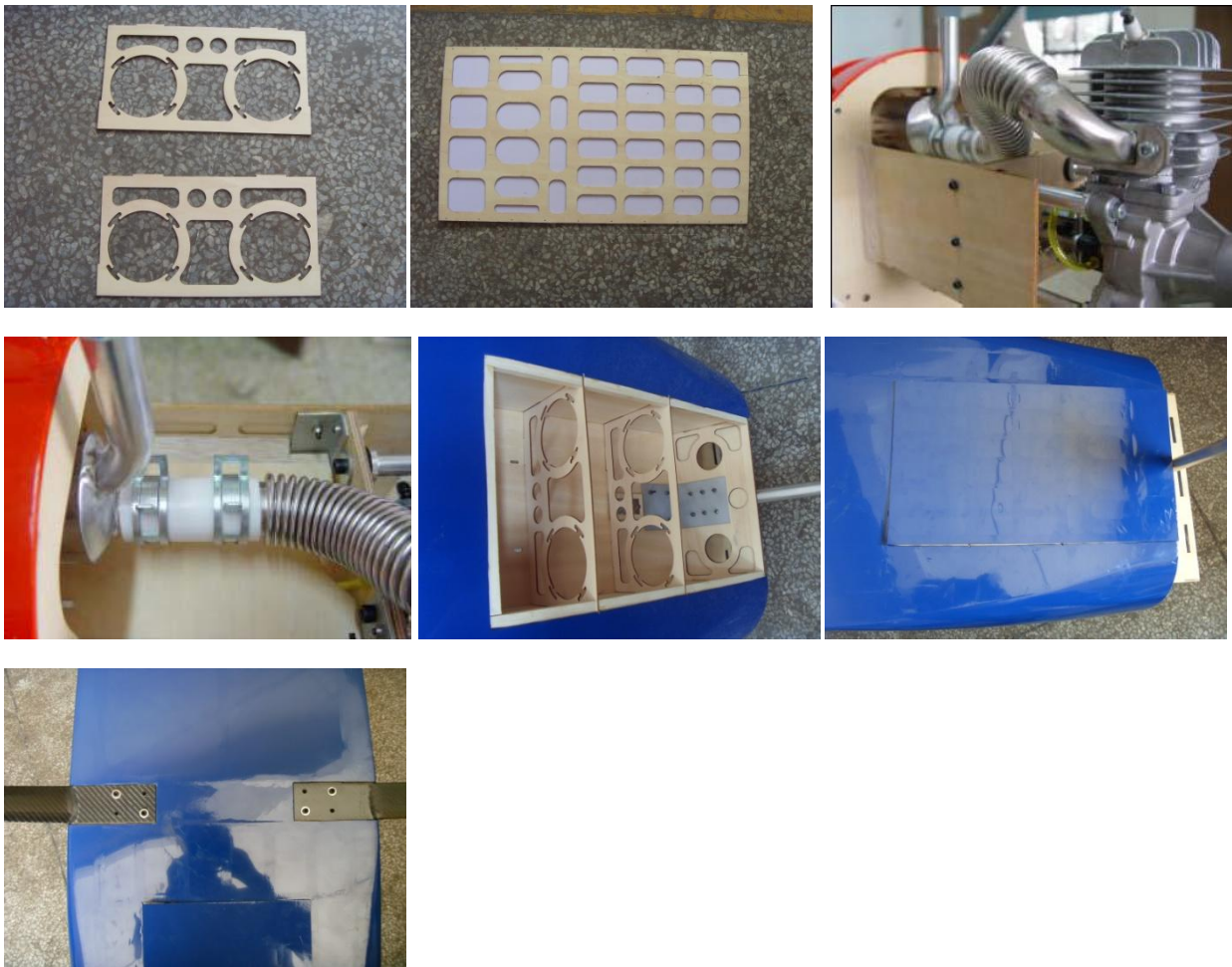
Take off the cover on the canister position.

Bend the flexible manifold to connect to the canister muffler. Trim the excess pipe to fit.

Tighten the manifold bolts and secure with blue loctite.

Use the silicone coupler and clamps to join the manifold and the canister muffler as shown.

Insert the canister into the holes of the canister holder. And cover them with screws.

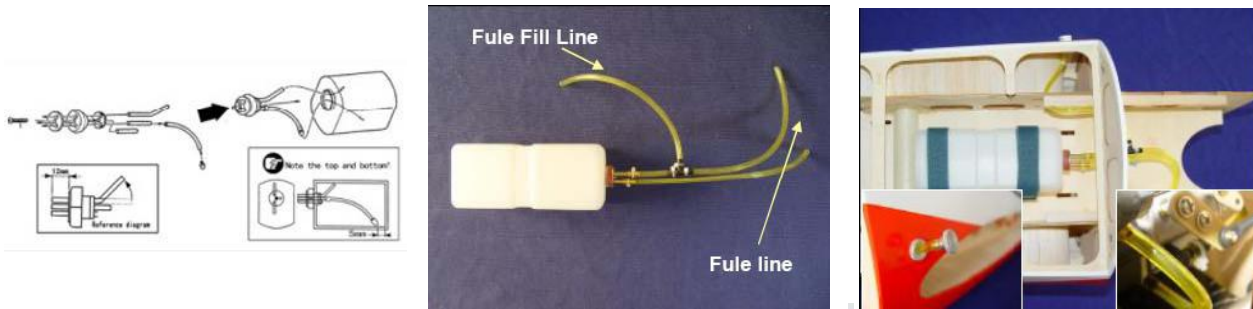


Fuel Tank

Install the inside parts of fuel tank as shown.

Assemble the outside fuel pipe as shown.

Tighten the velcro ties secure the fuel tank.

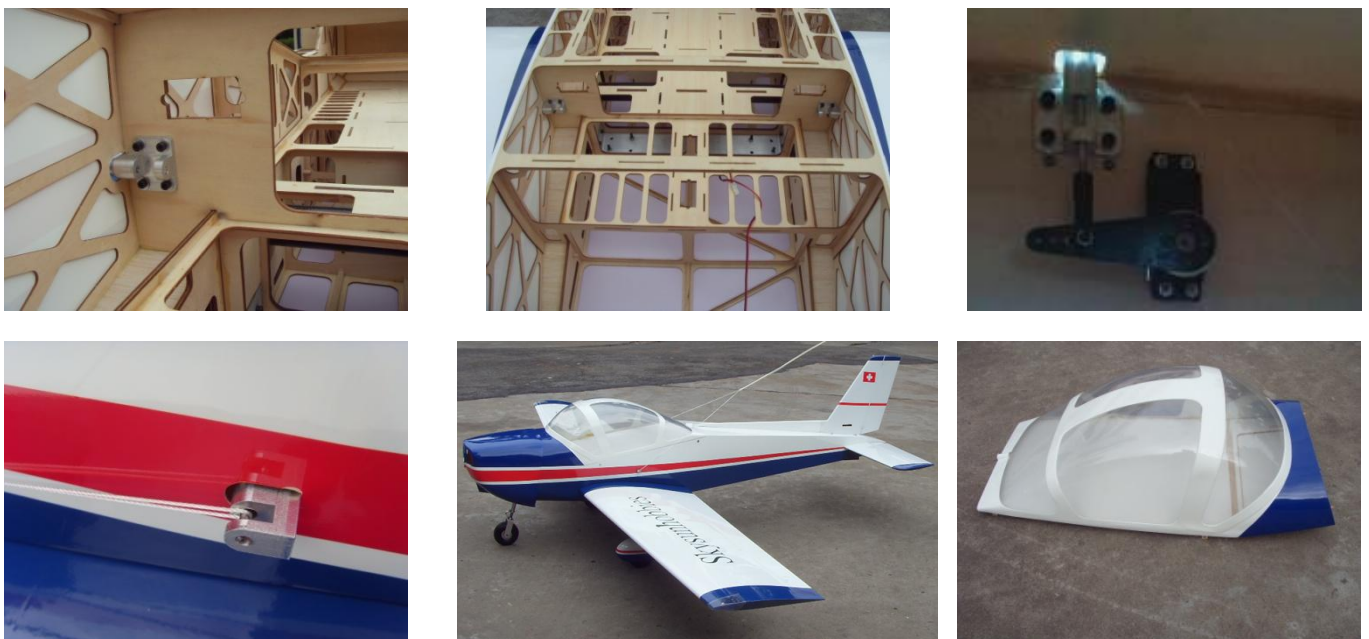


Aero-Tow

Lock the two of aero-tow to the plywood with screws on each side of fuselage.

Insert pushrod into the aero-tow and connect the other side onto the servo arm.

Install the rings and wires as shown.

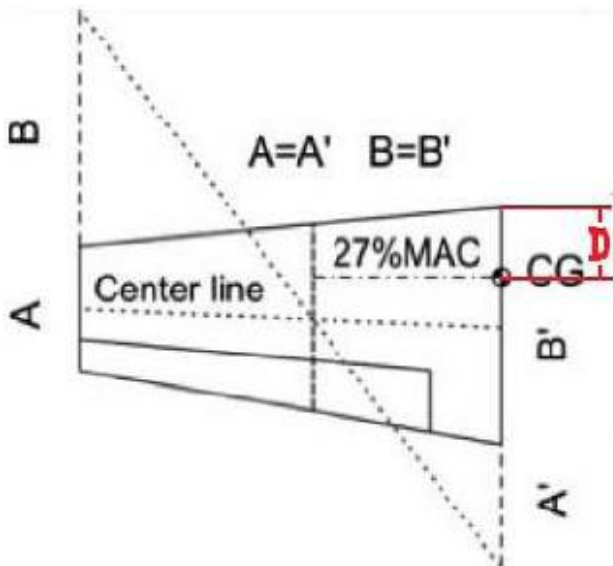
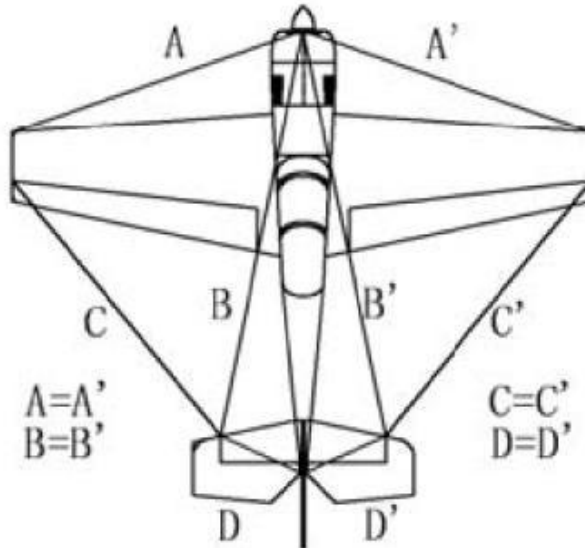




Center of Gravity

The center of gravity is on the rear of the wings tube.

Your balance at the CG will determine the final mounting location for batteries. Mount batteries and secure with Nylon zip ties.



Measure the CG from the leading edge of wing root rib. Adjust the battery pack location. For CG proper position should be at 27% MAC. This recommendation balance point is for your first flights. The CG can be moved around later to fit your personal taste.

MONSUN 100CC D= 173.5mm

MONSUN 50CC D= 138mm

Power on to trim your plane.

1. Range check the radio (test whether the Engine/Motor is running or not).
2. Ensure that the servos 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 your flying style.

Control Throw:

	Surface	Throws	Exp
Common flying	Aileron	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%

Trail 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 min, check the Engine and make sure the temperature is below the prescription of manufacturer.

