

## 30CC SERIES



## INTRODUCTION

Thank you for purchasing this excellent almost-ready to fly R/C model! This ARF adopts the latest 3D design features and emphasizes high performance, light weight and fun. Many of the parts are already pre-installed for you! We wish you great success in the assembly and flying of your new model.

Features:

1. Wing and Stab easy installation.
2. Hinges of wing are glued.
3. Tail landing gear have been assembled.

### Specification :

	<b>EXTRA300LP</b>	<b>YAK54</b>	<b>YAK55M</b>	<b>YAK55SP</b>
<b>Wing Span:</b>	73"(1860mm)	73"(1860mm)	73"(1860mm)	73"(1880mm)
<b>Length:</b>	67"(1700mm)	67"(1700mm)	67-1/2"(1720mm)	67"(1700mm)
<b>Wing Area:</b>	1000sq.in.(64.5sq.dm.)	1020sq.in.(65.8sq.dm.)	1023sq.in.(66sq.dm.)	2108sq.in.(65.9sq.dm.)
<b>Flying Weight:</b>	9.7-11lbs(4400-5000g)	9.7-11lbs(4400-5000g)	9.7-11lbs(4400-5000g)	25.3-28lbs(4400-5000g)

	<b>SUKHOI Su26M</b>	<b>SUKHOI Su29</b>	<b>SBACH342</b>	<b>Mx2</b>
<b>Wing Span:</b>	73"(1860mm)	73"(1860mm)	73"(1860mm)	73"(1860mm)
<b>Length:</b>	68"(1730mm)	68"(1730mm)	67"(1700mm)	67-1/2"(1720mm)
<b>Wing Area:</b>	1026sq.in.(66.2sq.dm.)	1026sq.in.(66.2sq.dm.)	1014sq.in.(65.4sq.dm.)	1022sq.in.(65.9sq.dm.)
<b>Flying Weight:</b>	9.7-11lbs(4400-5000g)	9.7-11lbs(4400-5000g)	9.7-11lbs(4400-5000g)	9.7-11lbs(4400-5000g)

	<b>MXS R</b>	<b>RAVEN</b>	<b>RACE EDGE540</b>
<b>Wing Span:</b>	75.2"(1910mm)	73"(1860mm)	75.2"(1910mm)
<b>Length:</b>	73"(1860mm)	67-1/2"(1720mm)	73"(1860mm)
<b>Wing Area:</b>	1029sq.in.(66.4sq.dm.)	1023sq.in.(66sq.dm.)	1026sq.in.(66.2sq.dm.)
<b>Flying Weight:</b>	9.7-11lbs(4400-5000g)	9.7-11lbs(4400-5000g)	9.7-11lbs(4400-5000g)

## 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. .

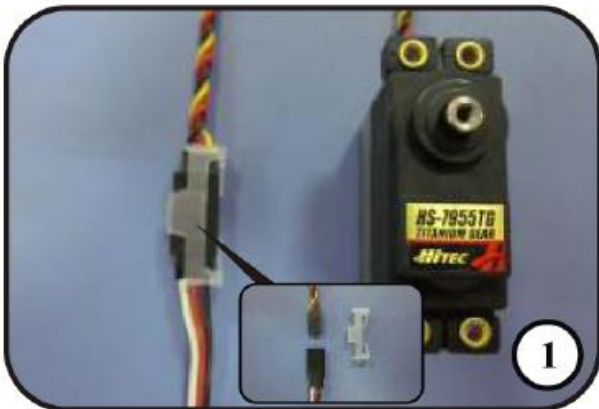


3.Apply 30 minute epoxy inside the pre-cut slots and coat the horns with epoxy , Insert them into the pre-cut slots. Wipe away excess glue with rubbing alcohol.



## Aileron Servo Installation

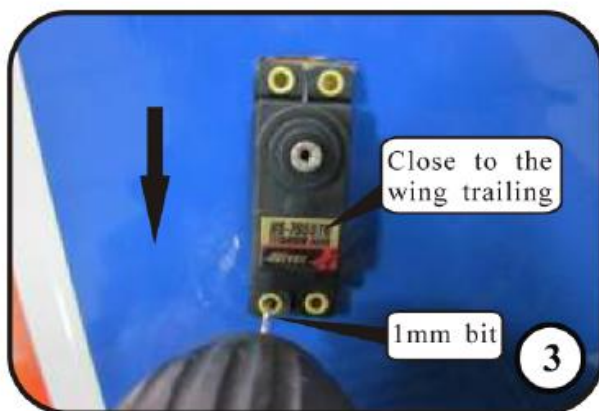
**Minimum Required Servo: 180 in.oz / Metal Gear / Digital**



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



2. The covering of the servo location had been removed 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.

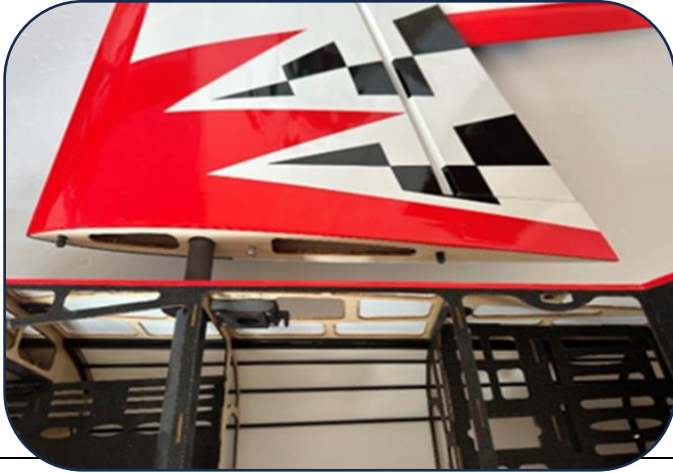


3. Drill 1mm holes for the servo mounting screws. Position the servo with the servo label closest to the wing trailing edge.



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

**1. Tube going though fuselage and wing.**



**2. The screw direct at center hole of the lock which fit on fuselage.**



**3. Adjust the screw length.**



**4. Press down button of lock meanwhile screw though the center hole.**



**5. Release button of lock.**



**6. 502 glue the screw, fix the length of the screw.**







5. Mount the servo arm and the extension arm with M2\*8mm screws and locking nuts as shown. Then turn on the transmitter and plug the servo into receiver. Ensure the channel is neutral. Install the servo arm facing toward the wing tip. Position the servo arm 90 degrees to the servo.



M2. 5\*60mm  
Black steel  
Pre-adjustable  
pushrod

2. 5mm latest nylon  
ball link assembly

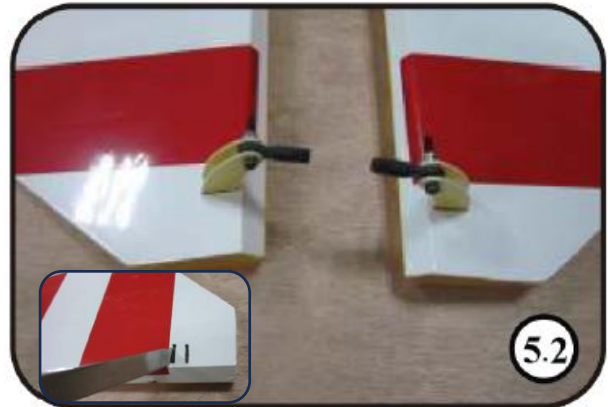
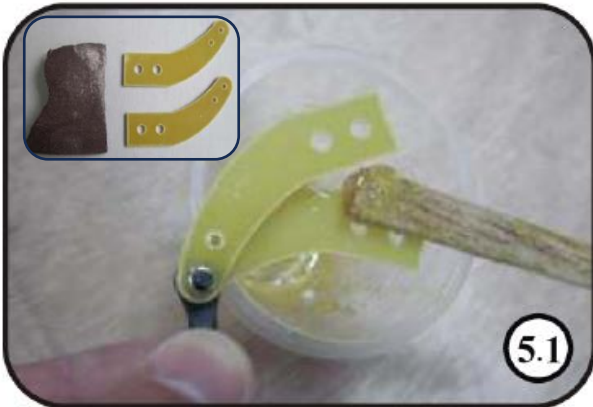
Epoxy horns

6. Adjust the pushrod length till the aileron and servo are in the neutral position. And then install the pushrod to the arm with M2. 5\*16mm hex socket screw and lock nut.

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

## Elevator Assembly





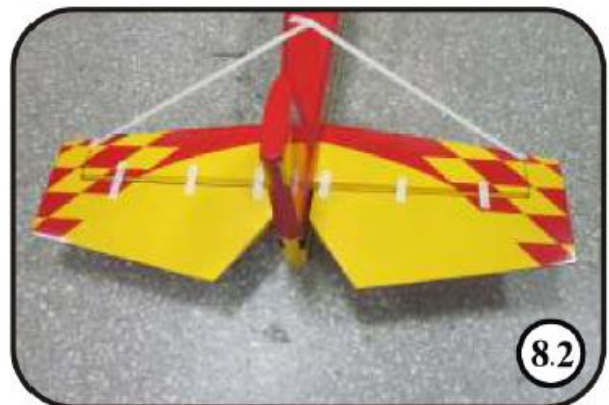
5. Install the two horns with M3\*16mm screw and locking nut. Apply 30 minute epoxy inside the pre-cut slots and coat the horns with epoxy, Insert them into the pre-cut slots.



6. Scuff the hinges with sand paper to ensure a good glue bond. Apply 30 minute epoxy inside the hinge-holes and coat the horns with epoxy.



7. Insert the them into the elevator hinge-holes. Watch the hinges direction.



8. Coat other sides of the hinges with the epoxy and insert them into the stab hinge-holes. Check you have full elevator deflection before fasten with tape.



## Stab and Elevator Installation

**1. Take out Stab.**



**2. Epoxy glue gum the contact place of stab.**



**3. Put stab into the fuselage.**



**4. Fix fixable cube.**



**5. Check the stab and wing is parallel.**



**6. Glue stab with 502.**





# Elevator Servo Installation

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



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



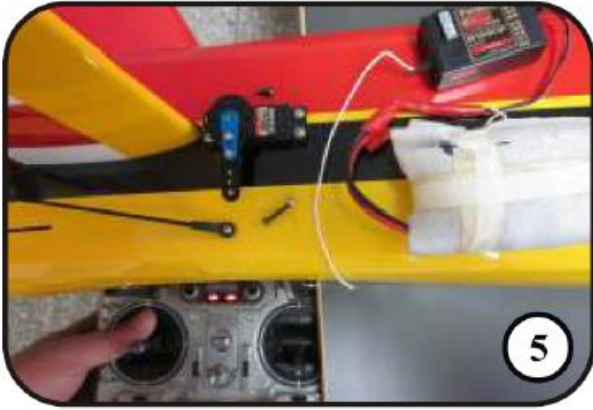
2. Run the extension lead through the fuselage to the receiver. Taping servo lead to the fuselage will help to prevent lead from dropping back inside of wing panel during flying.



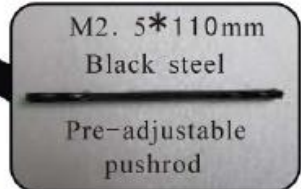
3. Position the servo with the servo label toward the fuselage head. Drill 1mm holes for the servo mounting screws using the long aiguille.



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.



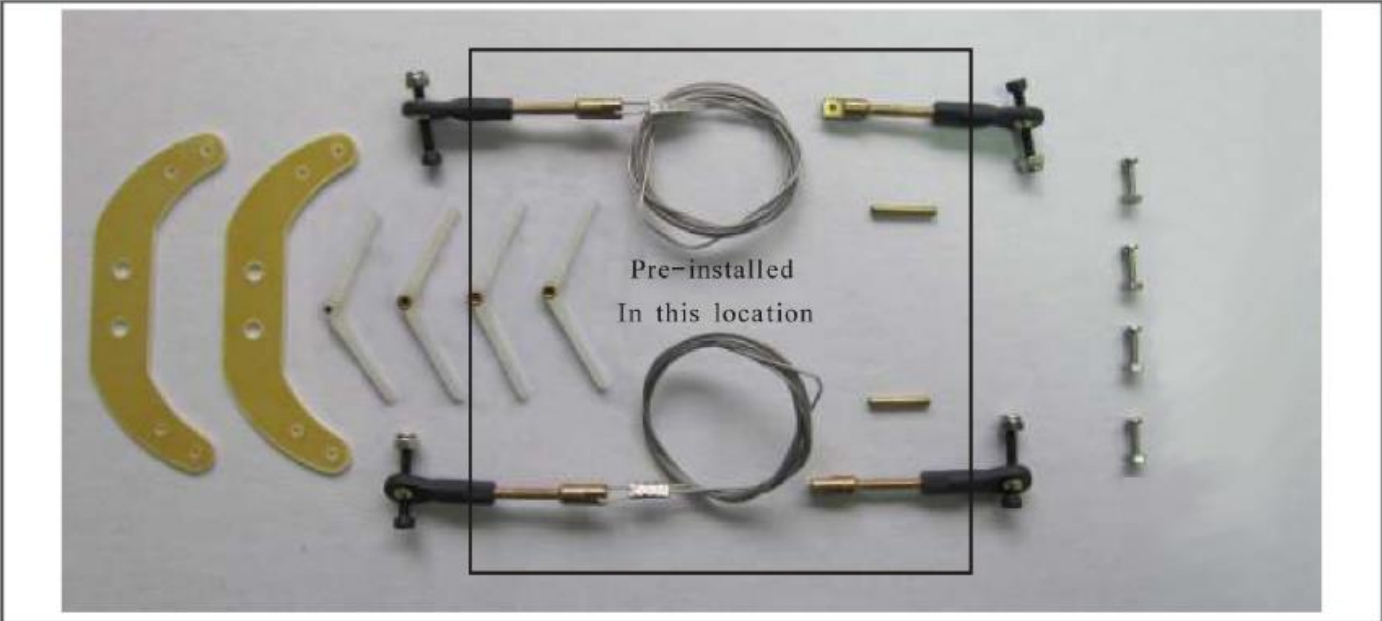
5. Turn on the transmitter. Make sure the servo is in the neutral position. Install the servo arm. Position the servo arm 90 degrees to the servo, and tighten the arm screw.



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



2. 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.



3. 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 epoxy has cured.



4. Scuff the hinges with sand paper to ensure a good glue bond. Apply 30 minute epoxy inside the hinge-holes and coat the horns with epoxy.



## Rudder Horns and Hinges



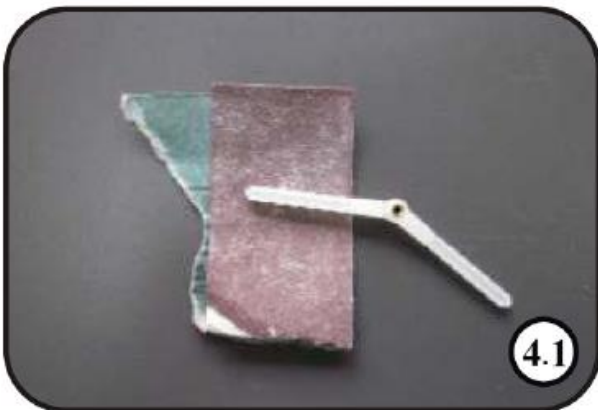
1. Remove the covering below to expose the pre-cut slots with a knife.



2. 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.



3. 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 epoxy has cured.

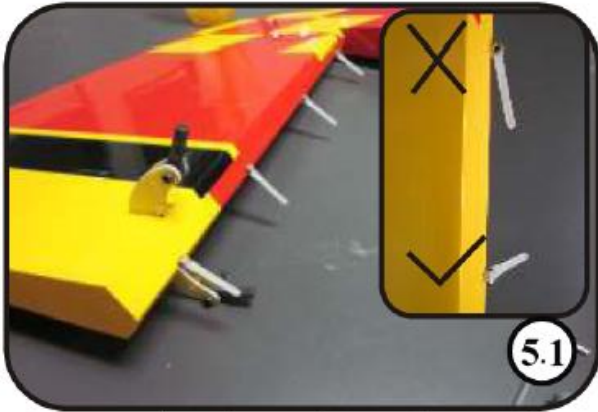


4.1



4.2

4. Scuff the hinges with sand paper to ensure a good glue bond. Apply 30 minute epoxy inside the hinge-holes and coat the horns with epoxy.



5. Insert the them into the rudder hinge-holes. Watch the hinges direction. Coat other sides of the hinges with the epoxy.



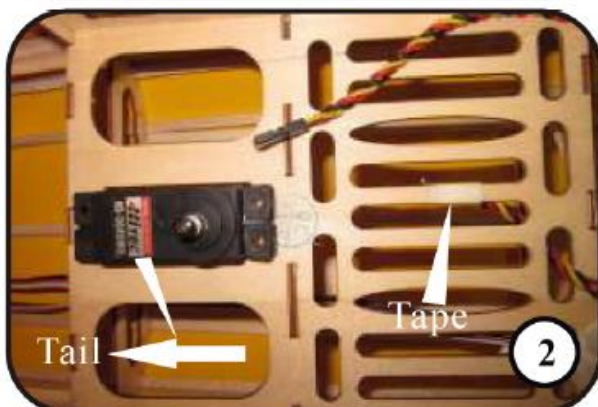
6. Insert them into the stabilizer hinge-holes. Check you have full rudder deflection before fasten with tape.

## 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.





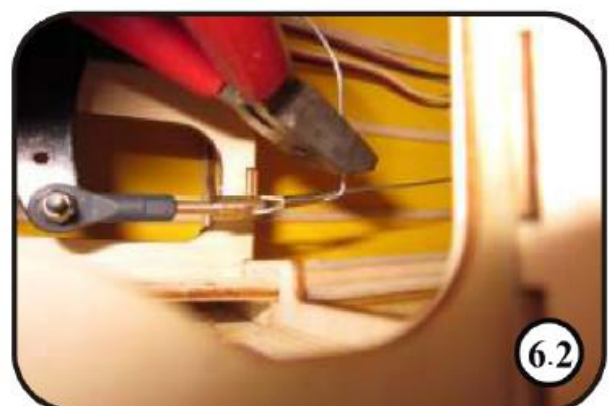
3. Drill 2. 5mm holes in the AL long arm for installing 2. 5mm ball links and screws. Drill 2mm holes in the servo arm and mount it with M2\*8mm screws and nuts.



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

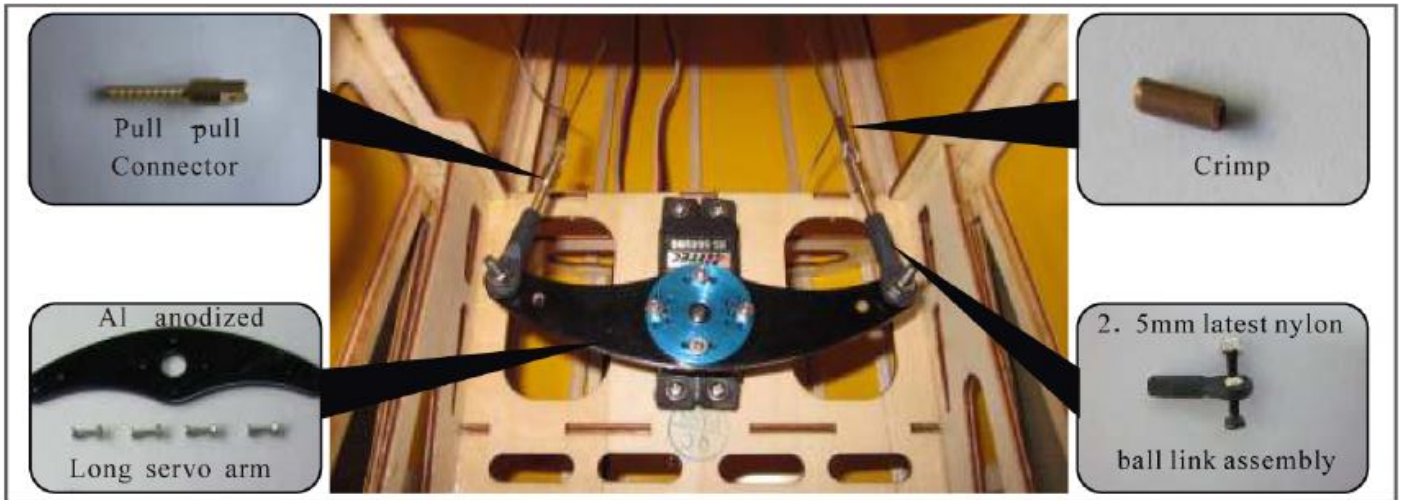


5. Turn on the transmitter. And then install AL long arm on the servo. position the servo arm 90 degrees to the servo.



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.





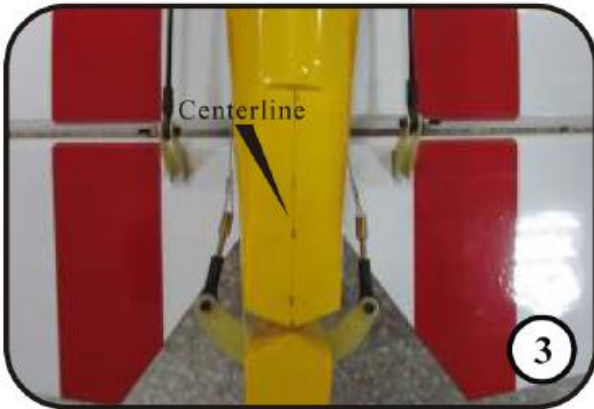
## Tail Wheel Installation



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



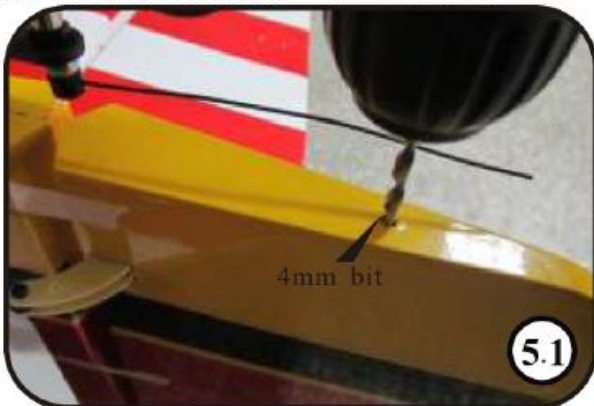
2. Install the wheel to the steel wire with wheel collars. All wheel collars should be secured with Blue Loctite. Grate the end of the steel wire with a



3. Draw a centerline on the fuselage tail with 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.

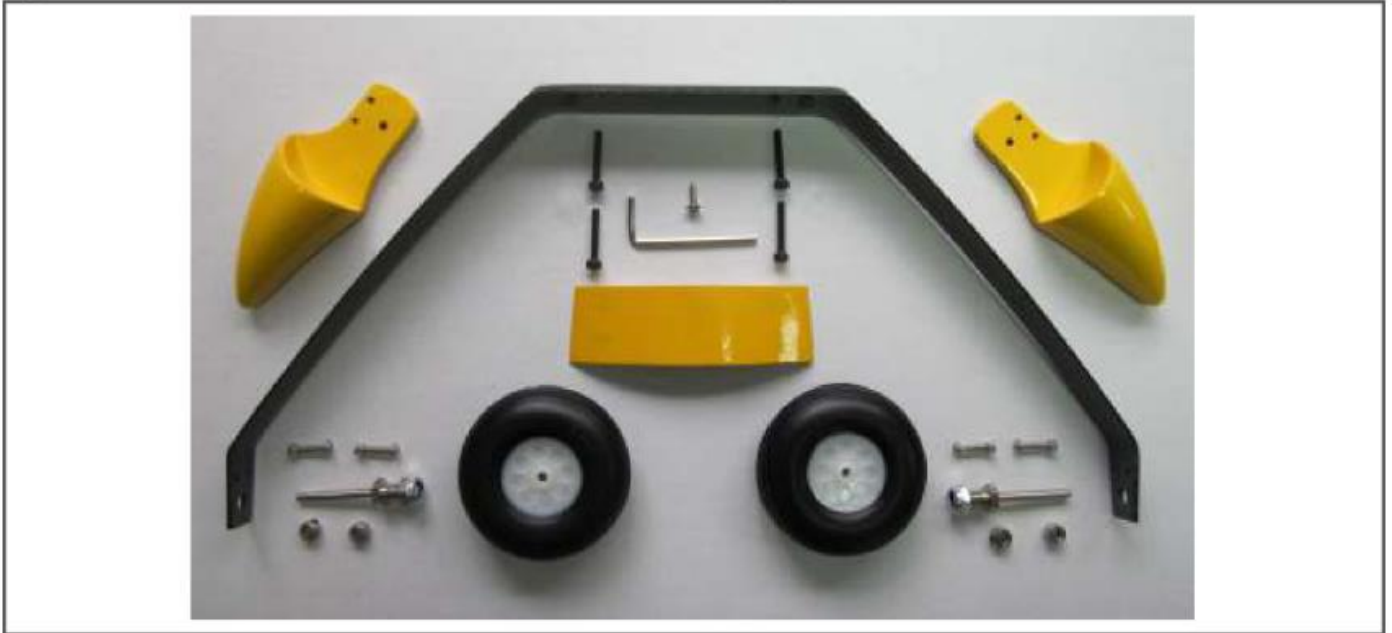


5. Drill 4mm holes in the bottom of the rudder. Scuffing the ball link with sand paper to ensure a good glue bond is suggested before gluing. Make sure the ball link hole is parallel to the rudder. Apply 30 minute epoxy inside the 6mm hole and coat the hinges with epoxy, Insert the ball link into the hole.





## Main Landing Gear Installation



### Landing Gear Installation

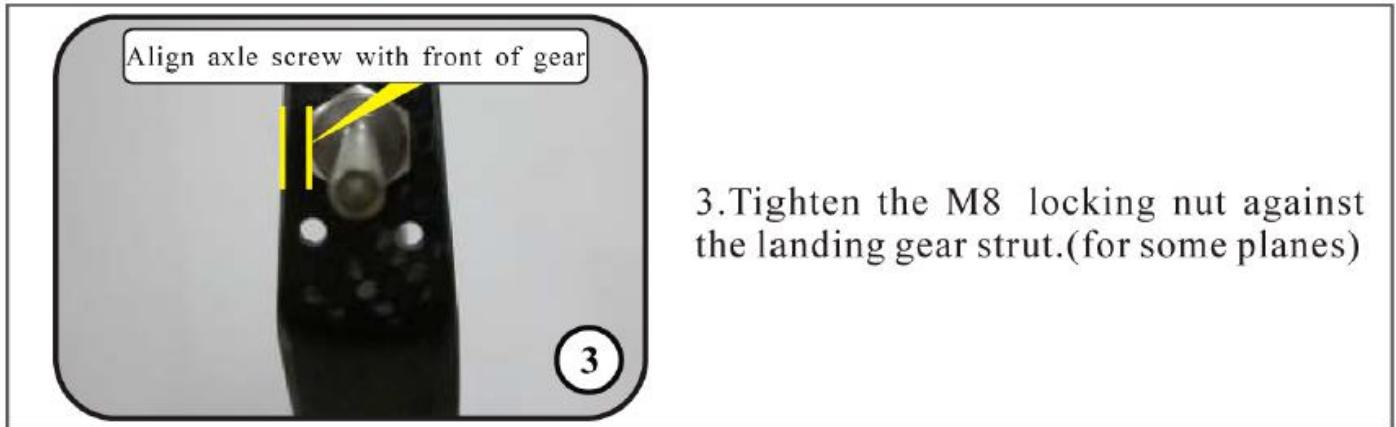


1. **NOTE: the correct edge in mounting.** Install the landing gear in the pre drilled holes with the supplied M4\*25mm hex socket screws. All screws should be secured with Blue Loctite. Don't over tighten and crack the carbon fiber.



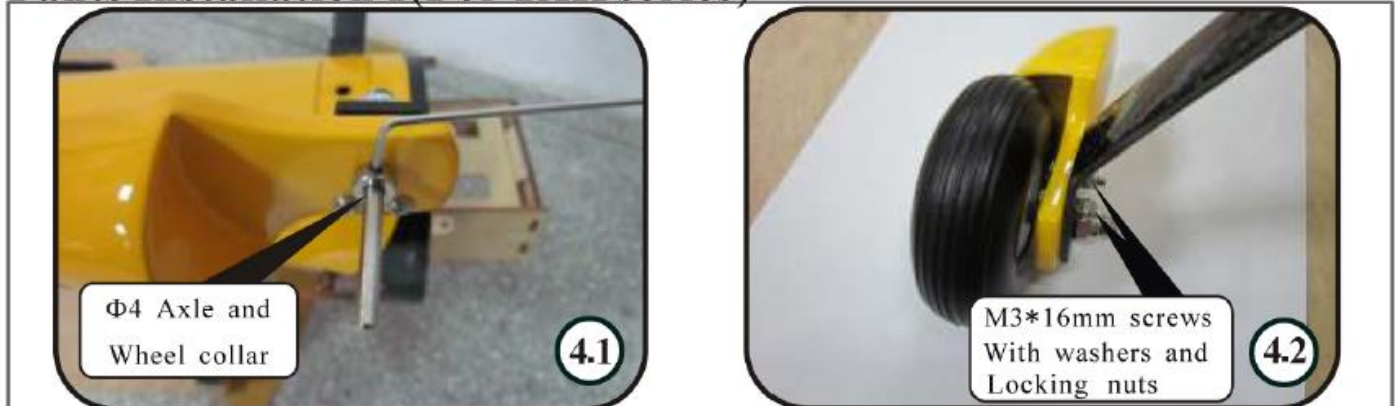
2. Remove the covering below to expose the holes with a knife and reinstall the landing gear hatch cover. Secure the M3\*12mm tapping screw with a drop of CA. The hatch cover maybe not included in some planes.





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

### Pants Installation 1 (For YAK series)



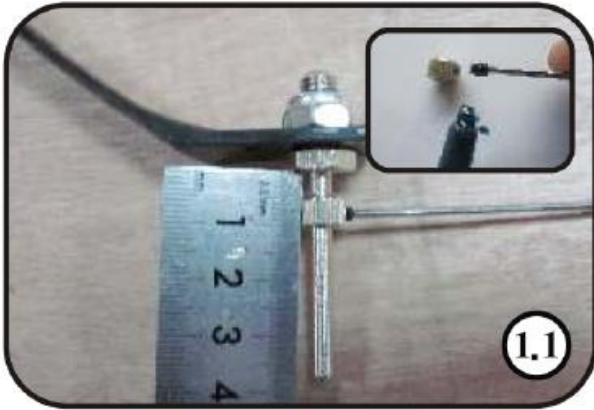
4. Install the inner wheel collar on the axle. Tighten the wheel collar in place. Adjust wheel collars in or out until wheel turns freely.



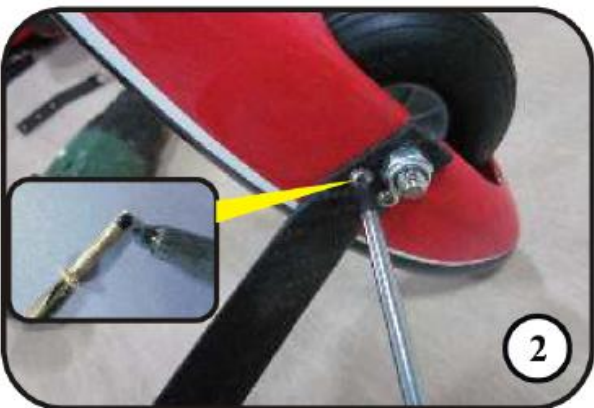
5. Repeat above steps for other wheel and wheel pant. Final landing gear installation shown below.

### Pants Installation 2 (For other series)





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





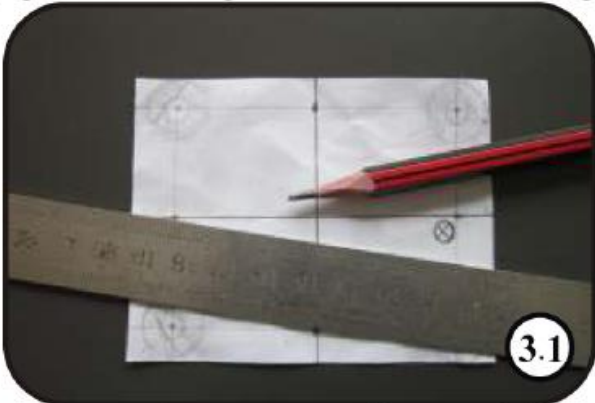
## Firewall holes Assembly



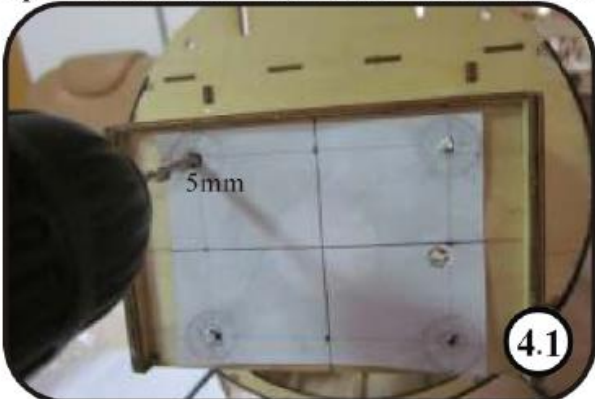
1. Do not use Blue Loctite on engine mounting screws until final assembly. The engine will need to be removed to fit the throttle pushrod and fuel line.



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.

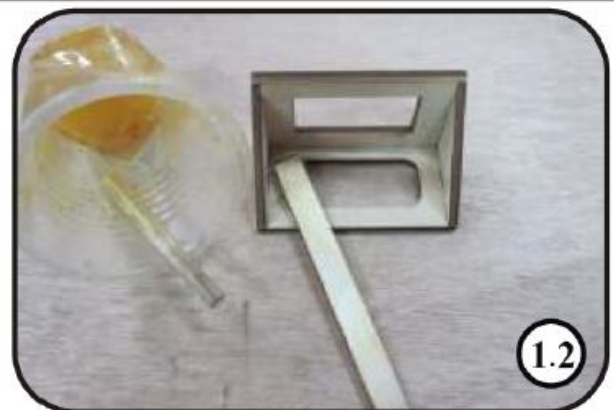


3. Draw the center-lines with a pencil as shown. Stick the template paper onto the firewall with the center-lines coincident.

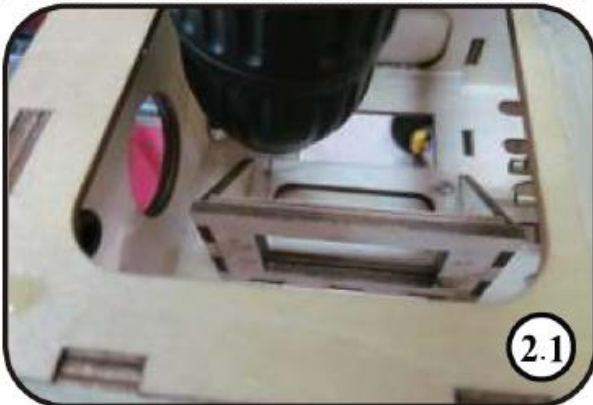


4. Drill four 5mm holes and a 5mm pushrod exit hole on the firewall.

## Throttle Servo Installation



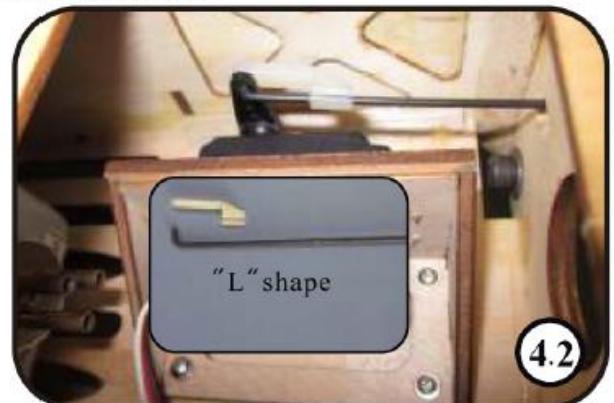
1. Drill 1mm holes in the throttle servo mounting and epoxy it.



2. Mount the servo mounting with M2\*12mm tapping screws or epoxy. Turn on the transmitter. And then 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.

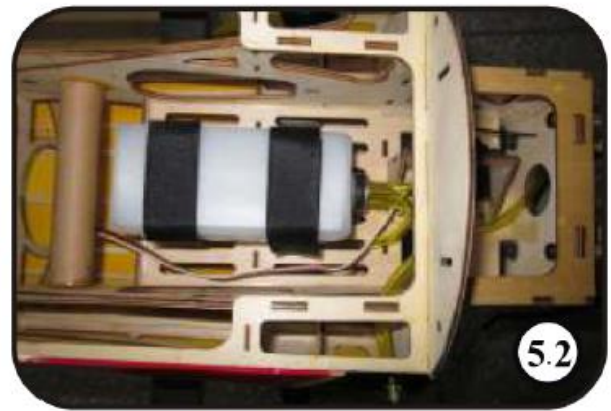


4. Remove pushrod from throttle arm on carburetor and cut throttle pushrod to length.. Use a L bend to connect the push rod to the servo arm.



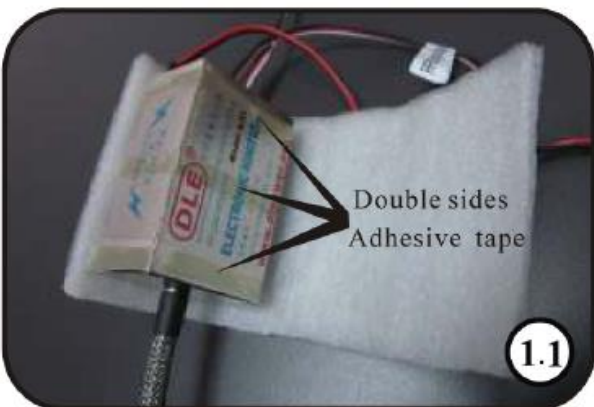


4. Drill a 6mm hole on the side of the fuselage. And then let 6mm pumping fuel line pass through the hole. Install the M5mm screw to seal the fuel line.

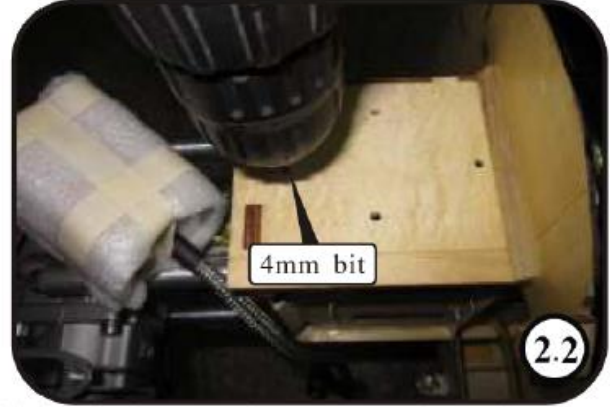
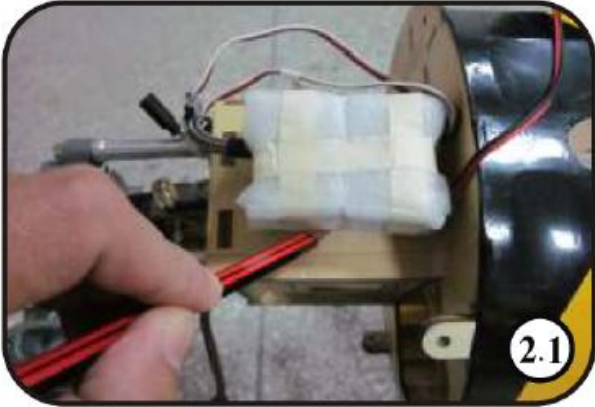


5. Drill a 6mm hole on the bottom of the fuselage. Let air line pass through the hole. Tightening the line with nylon tie will help to prevent lead from drawing back inside of fuselage during flying. Retight the tank with the velcro tie after the fuel lines are all right.

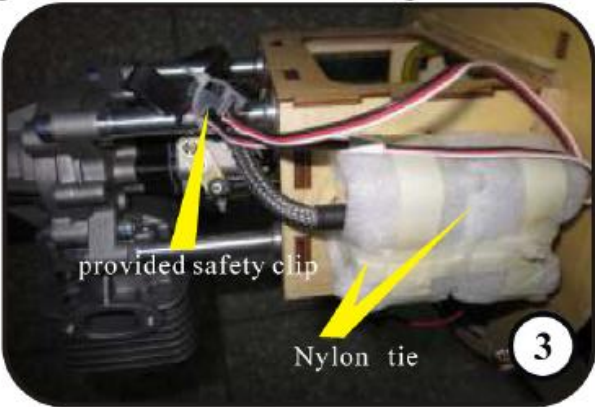
## Ignition and the battery Assembly



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



NOTE: Special 3" for SBACH300 and SBAC



## Wing final assembly



1. Cut off the decal without spiculate parts as shown.



2. Clean the wing cover with a piece of cloth.

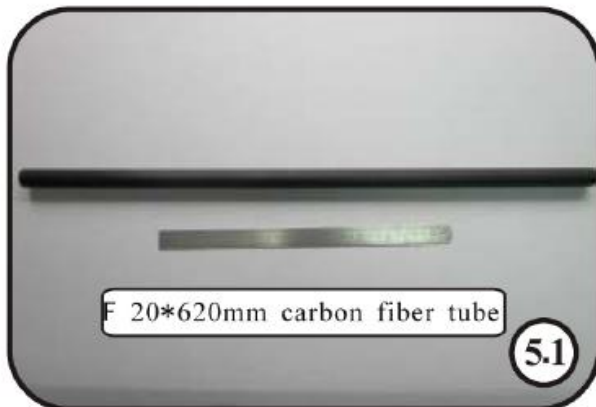




3. Using a piece of cloth. Spread decal smooth and remove all excess application fluid. Stick the decal to the wing cover while tearing out the decal as shown. Stick other decal to the fuselage or the part you want to decorate.



4. Finished decal installation. Work slowly and carefully and you will be rewarded with a beautifully finished model. Stick other decal to the fuselage or the part you want to decorate.



5. Slide the wing tube in the fuse wing tube sleeve.



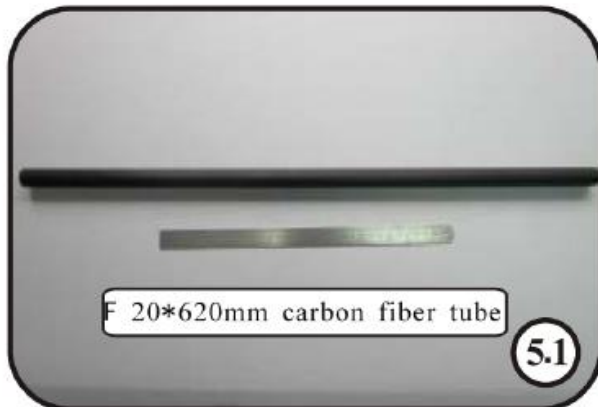
6. Install the nylon bolts to the wing blind nuts. Tighten snugly but do not over tighten. Slide the wings on the wing tube and plug in the aileron servo connectors.



3. Using a piece of cloth. Spread decal smooth and remove all excess application fluid. Stick the decal to the wing cover while tearing out the decal as shown. Stick other decal to the fuselage or the part you want to decorate.



4. Finished decal installation. Work slowly and carefully and you will be rewarded with a beautifully finished model. Stick other decal to the fuselage or the part you want to decorate.



5. Slide the wing tube in the fuse wing tube sleeve.



6. 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.



## Canopy Assembly



1. You can stick the pilot on the KT board before put the KT board into the canopy carefully.



2. Stick the KT board on the canopy with hot cement.

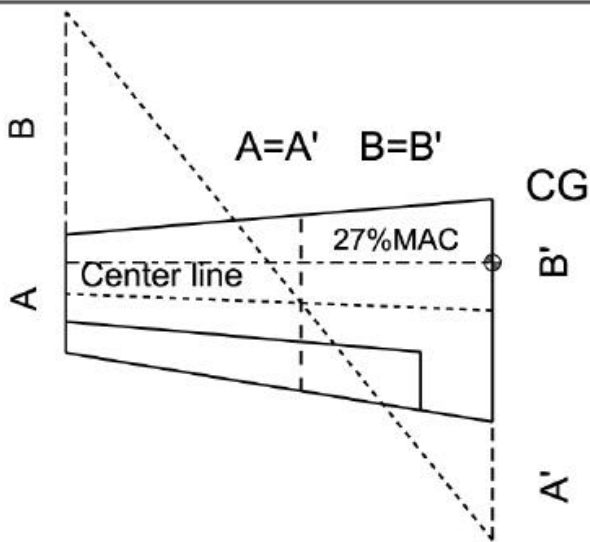


3. Us thin CA to secure front hatch hold down dowels. It is highly recommended you apply thin CA glue to the front hold down dowels. This is a High vibration area and can loosen the front dowels.



4. Install the canopy to the front of fuselage. Tighten the canopy with the M3\*16mm metal bolts.

## C. G Location



1. Measure the CG from the leading edge of wing against the fuselage.



2. For CG proper position should be at 27%MAC. This recommendation balance point is for your first flights.

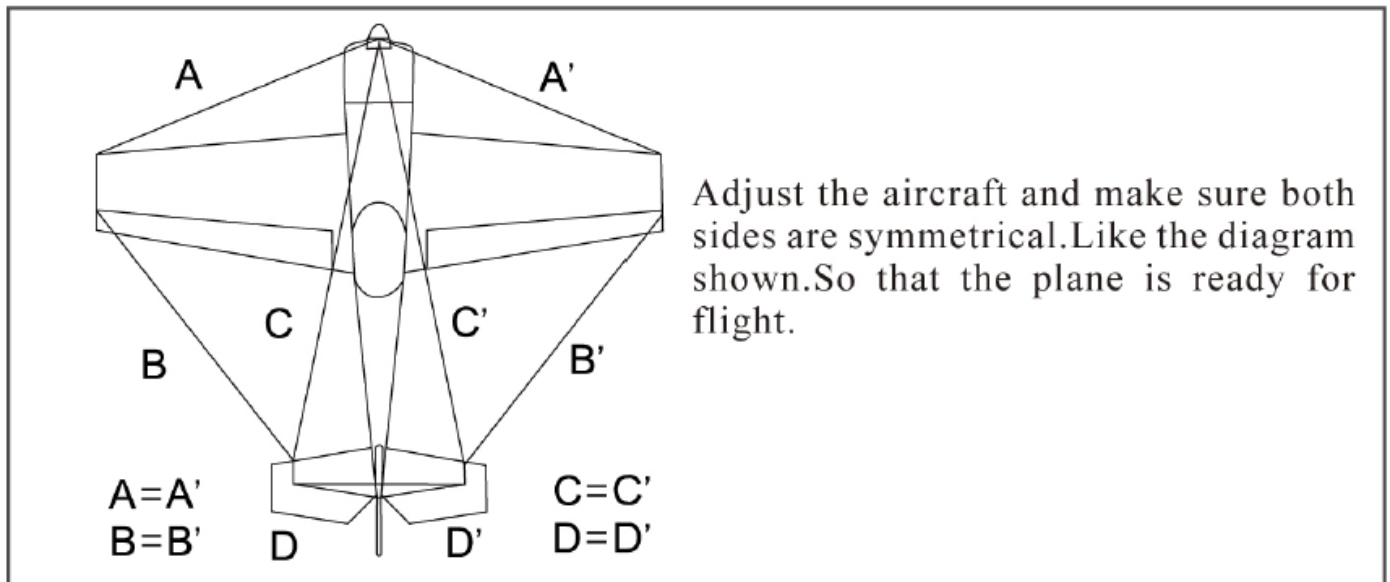


3. Adjust the battery back location. The CG can be moved around later to fit your personal taste.

<b>PLANE</b>	<b>SUKHOI SU29</b>	<b>SUKHOI SU26M</b>	<b>YAK54</b>	<b>YAK55M</b>	<b>YAK55SP</b>	
<b>27%MAC</b>	<b>116mm</b>	<b>116mm</b>	<b>131mm</b>	<b>131mm</b>	<b>127mm</b>	
<b>CG Location:</b>	<b>4-7/16 inch</b>	<b>4-9/16 inch</b>	<b>5-1/6 inch</b>	<b>5 inch</b>	<b>5-1/6 inch</b>	
<b>PLANE</b>	<b>EXTRA300LP</b>	<b>RACER EDGE540</b>	<b>MX 2</b>	<b>MXS-R</b>	<b>RAVEN</b>	<b>SBACH342</b>
<b>27%MAC</b>	<b>113mm</b>	<b>100mm</b>	<b>121mm</b>	<b>121mm</b>	<b>105mm</b>	<b>124mm</b>
<b>CG Location:</b>	<b>4-7/16 inch</b>	<b>4 inch</b>	<b>4-3/4 inch</b>	<b>4-3/4 inch</b>	<b>4-1/8 inch</b>	<b>4-7/8 inch</b>



## Symmetry Control



## Control Throws

	Surface	Throws	Exp
Common flying	Aileron	20 degrees	25%
	Elevator	20 degrees	25%
	Rudder	30 degrees	30%
3D flying	Aileron	45 degrees	50%
	Elevator	45 degrees	50%
	Rudder	45 degrees	50%

## 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 parts 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.....

*Good luck & Have fun!*