TECHone™

Before operating this unit, please read these instructions completely.

Extra300 3D EPP
Instruction Manual

Features:

1. Extra300 3D EPP is a superb model for 3D aerobatic flying. It's made of “almost unbreakable” EPP material and by the modern technology in CNC machines.

2. The flying time of Extra300 3D EPP is 8-15 minutes, it depends on the flying figures. The model is able to “torque roll” and then after giving more “gas” to rise verticaly up, looping in “knife” flight and all aerobatic figures.

3. Easy to landing.

4. Easy to assemble, most of the parts are pre-assembled in our factory.

Product Specifications

Fuselage length: 970mm (38.2in.)
Wingspan: 840mm (33in.)
Flying Weight:170g (with battery)
Motor: AS2206 KV 1500
ESC: 10 Amp
Propeller: GWS 8040 HD
Servo: 5g micro servo*4pcs
Radio: 4/more channel
Battery: 2S7.4V 500mAh Li-po 25C

Warning:This aircraft is a hobby grade product, only for people 14-year old or above.

Do not fly under the conditions as below
Wind strong enough to make the trees rustle.
A street with many trees or street lamps.
Close to high voltage electrical wires.
High Population density areas.

Cautions for flying
Large gyms, front lawns and parks make excellent flying areas. Make sure you have permission to fly and follow safety guidelines set by local authorities. The calmer the wind, the better!

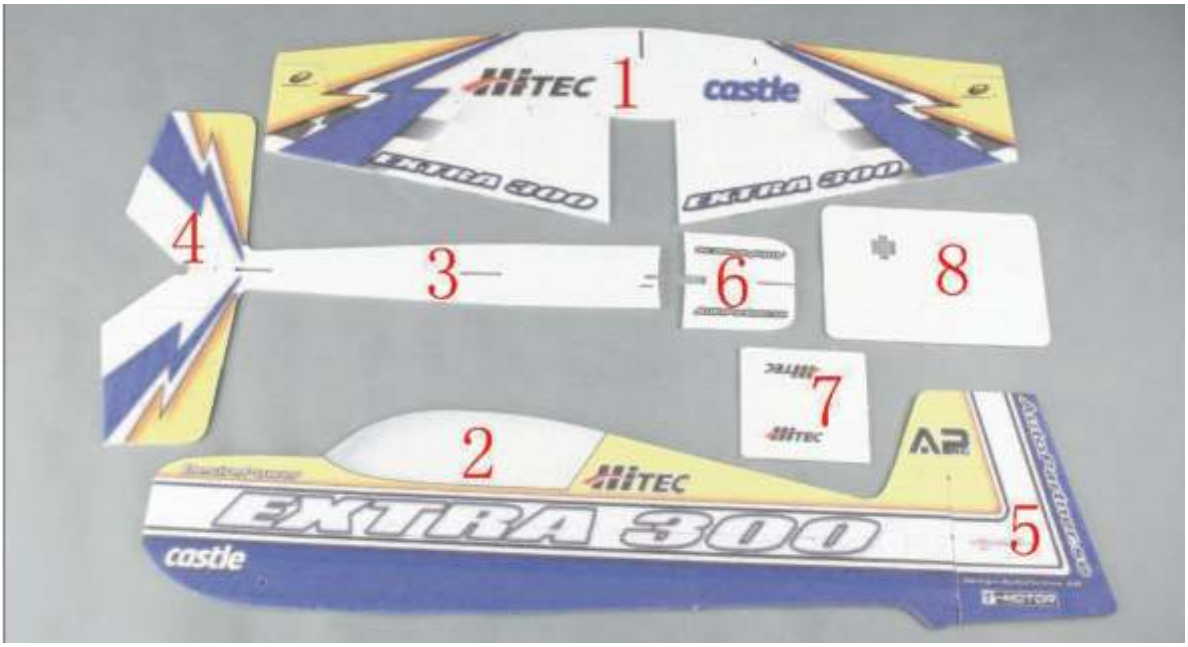
Note for storage
Please disconnect the lipo packs when finished flying.
Do not press or crush the airplane when storing.
The best way to store is to hang the airplane to keep the control surface rigid.

Recommended Flying Setup

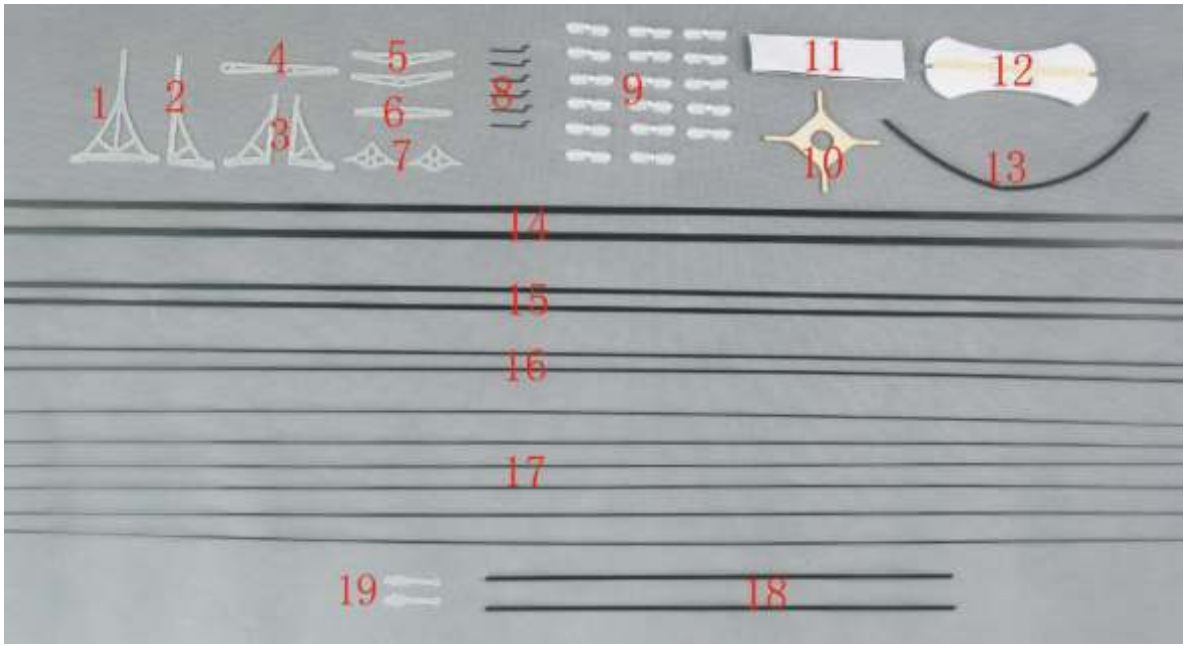
Max servo travel of aileron: 40 degrees up and 40 degrees down（80mm）
Max servo travel of elevator: 50 degrees up and 50 degrees down（100mm）
Max servo travel of rudder: 55degrees left and 45 degrees right（120mm）

CG Position:
85-95mm away from the leading edge of the wing.

Parts included in the packing

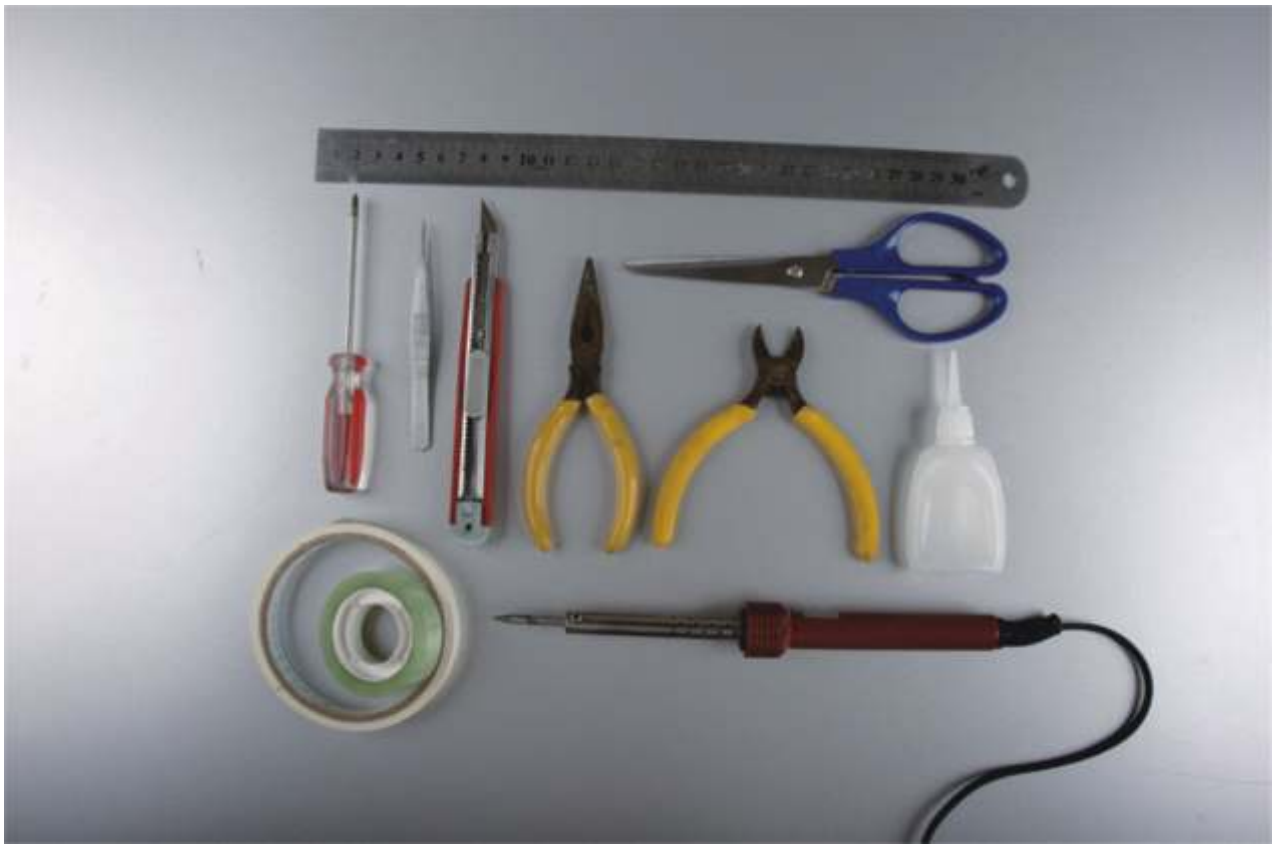


1 Wing	1pc
2 Fuselage	1pc
3 Horizontal fuselage	1pc
4 Horizontal tail	1pc
5 Rudder(vertical tail)	1pc
6 Nose	1pc
7 Wheel cover	2pcs
8 Accessories	

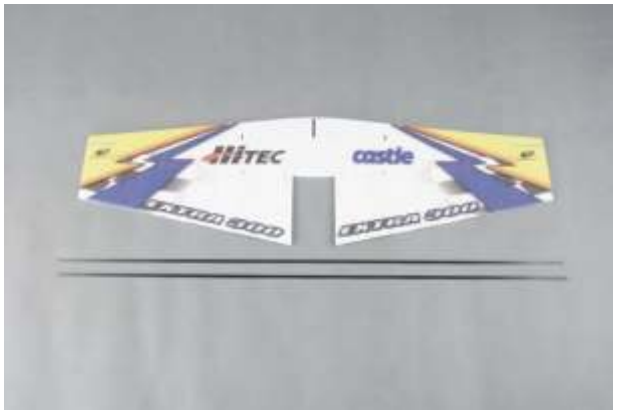


1 Bidirectional fiber glass control horn	1pc
2 Unidirectional fiber glass control horn	1pc
3 Aileron control horn	2pcs
4 Unidirectional servo arm extension	2pcs
5 Aileron servo arm extension	2pcs
6 Bidirectional servo arm extension	1pc
7 Wheel cover reinforcement	2pcs
8 Z bend	6pcs
9 Plastic hinges	17pcs
10 Motor mount	1pc
11 Nylon vercro	1pc
12 Pull-push thread	1pc
13 Shrink tube	1pc
14 Carbon fiber strips 0.5*5*850mm	2pcs
15 Carbon fiber strips 0.3*3*850mm	2pcs
16 Carbon fiber rods 1.5*850mm	2pcs
17 Carbon fiber rods 1*850mm	6pcs
18 Carbon fiber rods 2*260mm	2pcs
19 Fiber glass support rods	2pcs

The items below are required for assembly

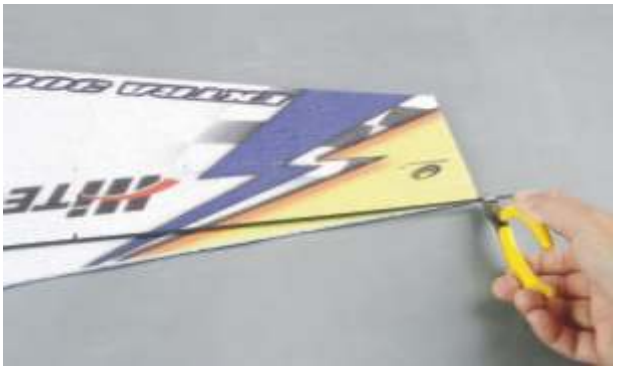


The assembly steps：

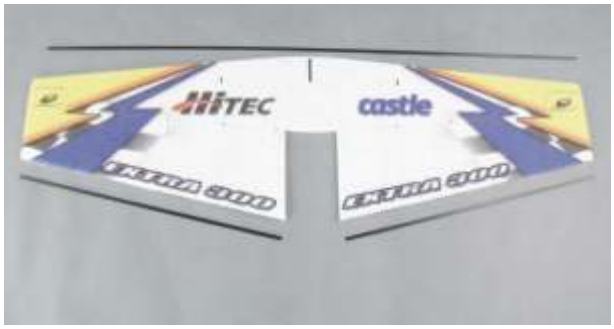


1. Reinforce carbon strips for the leading edge of the wing and the ailerons.

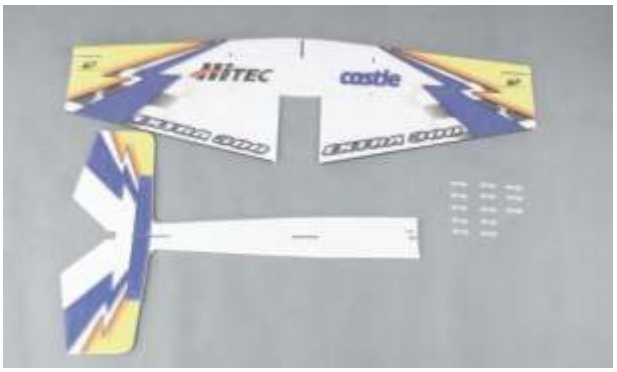
Cut the 0.5*5 carbon strip as picture shown.



Cut the 0.5*5 carbon strip as the same length as wingspan.

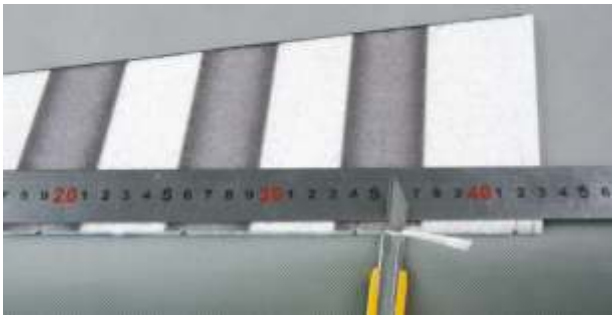


Attach the adhesive tape to the carbon strip as picture shown and fix it with glue.



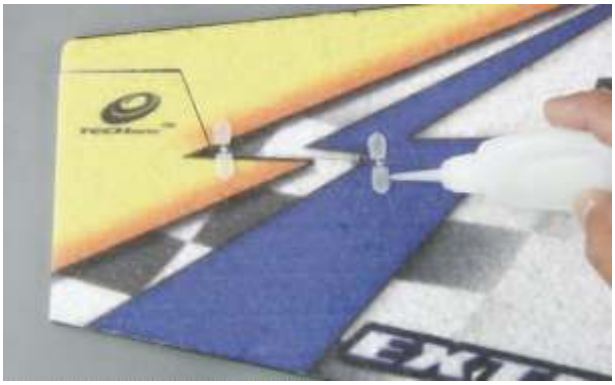
2 .Installation of hinge for aileron and elevator.

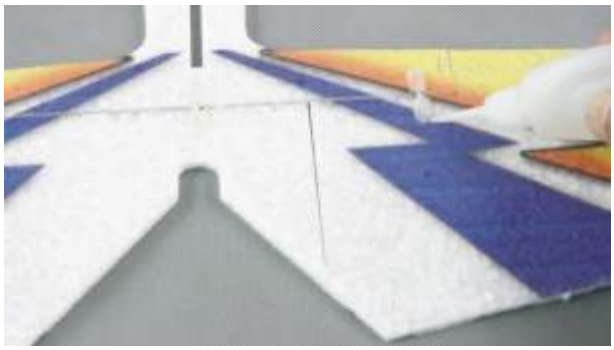
cut off the aileron.



Cut off 45 bevel angle at the hinge parts of aileron and wing.

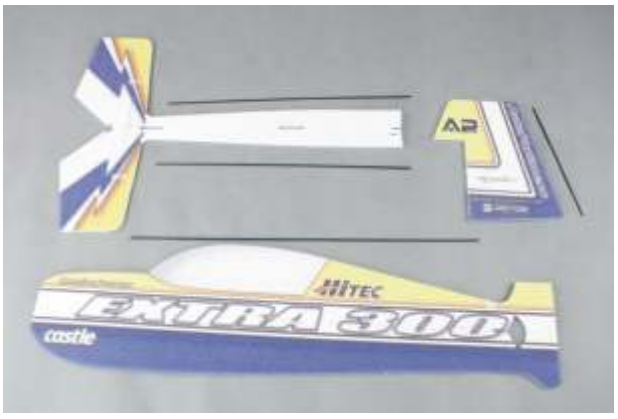
Cut off 45 bevel angle at the elevator.





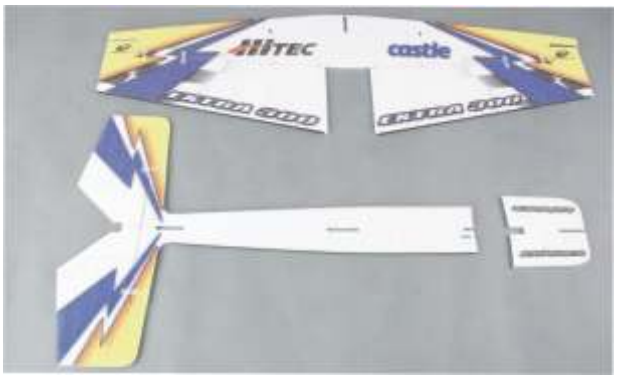
Insert the hinge to the pre-reserved seam and fix it with glue.

3.Reinforce carbon strips for the fuselage, horizontal fuselage and the rudder.



Cut the 0.3*3 carbon strip as picture shown.

Fix it with adhesive tape and then glue it well.



4.Glue the horizontal fuselage.

Attach nose to the wing and fix with glue.

Adjust the fuselage, ensure it flat and straight, then fix it with glue.

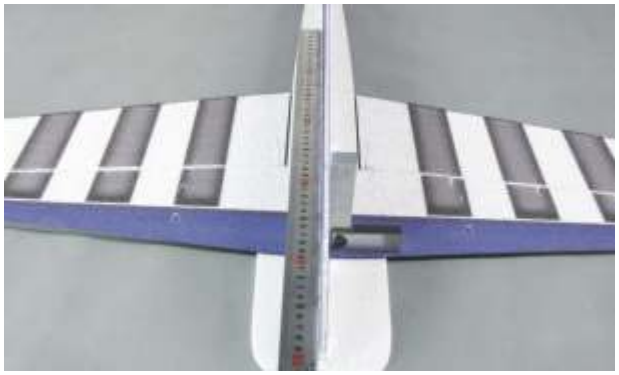
5.Installation of the lower half part of the fuselage.

6.Installation of the landing gear.

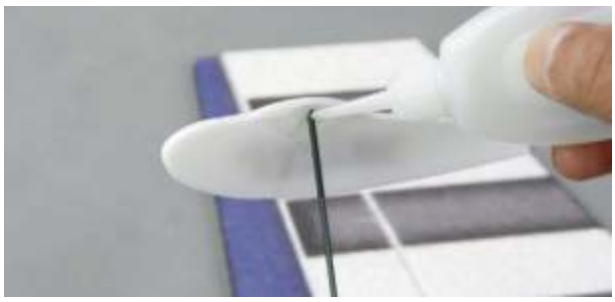
Cut off the fuselage.

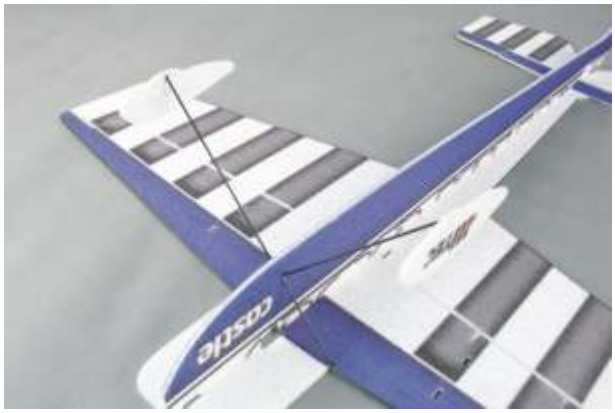
Insert the lower half part of the fuselage to the square hole of the horizontal fuselage and the wing.

Make the 2*260mm carbon rod pass through the pre-reserved hole on fuselage, and insert it to the holes on the wing, and then fix it with glue.



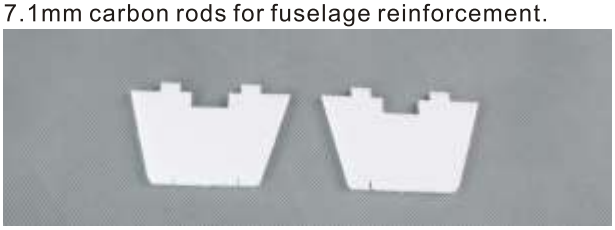
Install wheel cover reinforcement on wheel cover, and fix with glue.



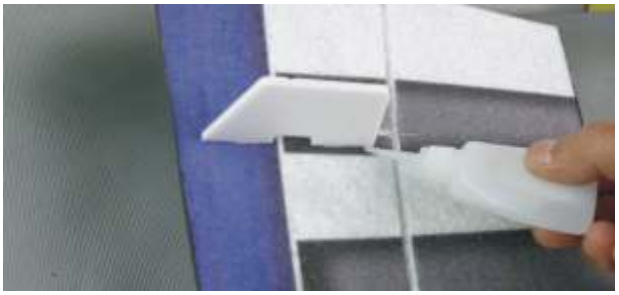


Glue the wheel cover and the carbon rods tightly.

7.1mm carbon rods for fuselage reinforcement.

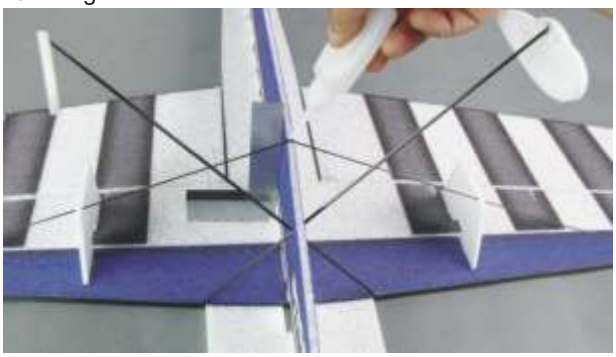


Install the support board of the wing first.

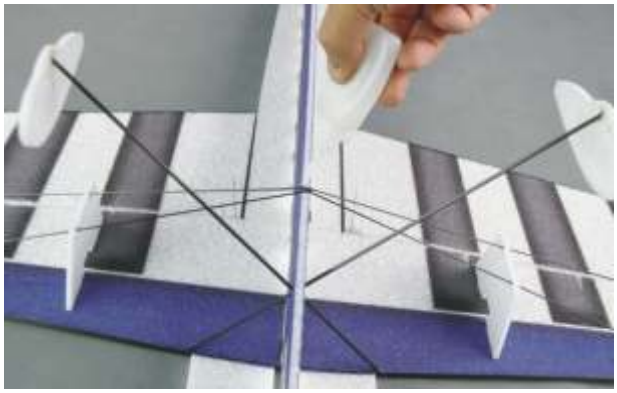


Insert the support board of the wing to the pre-reserved square holes, and fix it with glue.

Cut off the 1mm carbon rod to 4 pcs of support rods for wing.

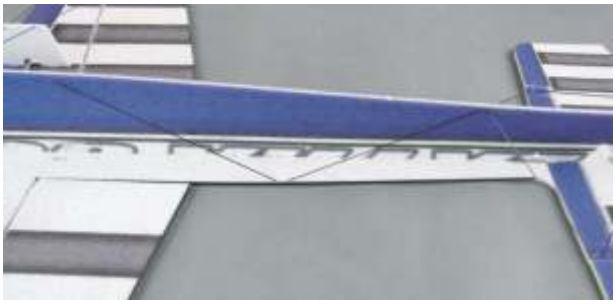


First fix the left and right support rods with glue as picture shown.

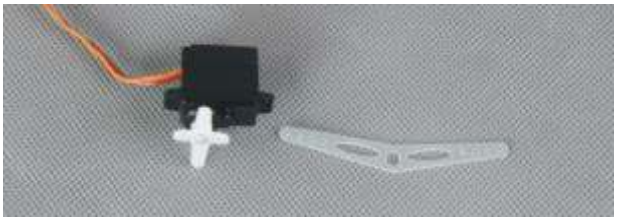


And then install the other two support rods.

Reinforce the horizontal tail.



Reinforce the middle fuselage.



8.Installation of the aileron servo. Servo arm extension installation is optional.

Put the aileron servo to the hole and fix it with glue.

9.Installation of the upper half part of the fuselage.

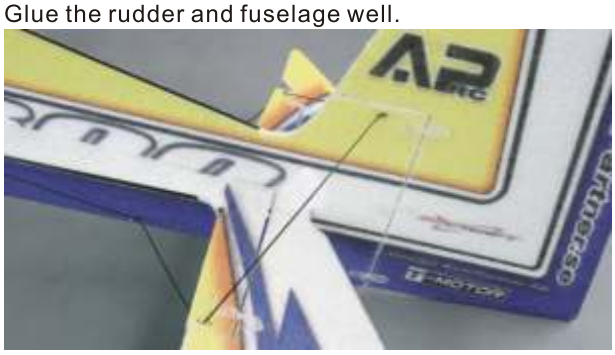
Insert the upper half part of the fuselage to the square hole of the horizontal fuselage. And then adjust it and fix with glue.

10.Installation of the rudder.

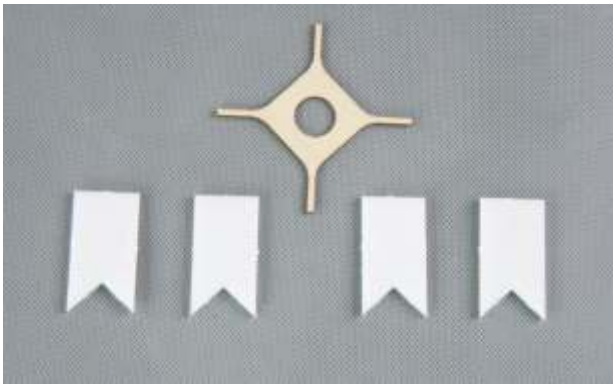
Cut off 45 bevel angle at the hinge parts.

Install the hinges and fix them with glue.

Glue the rudder and fuselage well.



Use 1mm carbon rod to reinforce the vertical tail.

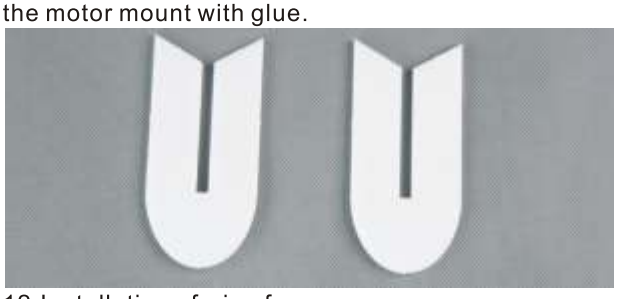


11.Installation of the motor mount.

Fix the motor mount to the nose with glue.

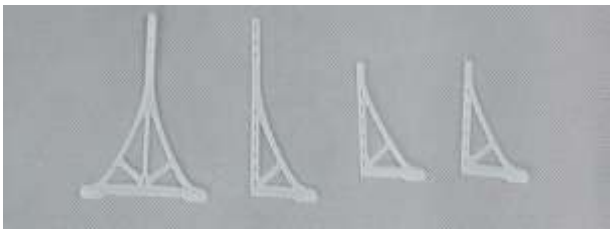
Cut off 45 bevel angle on the 4 reinforcing boards as picture shown.

Install the reinforcing board to the nose and fix it to the motor mount with glue.



12.Installation of wing fences.

Install the wing fences to the left and right wing as picture shown.

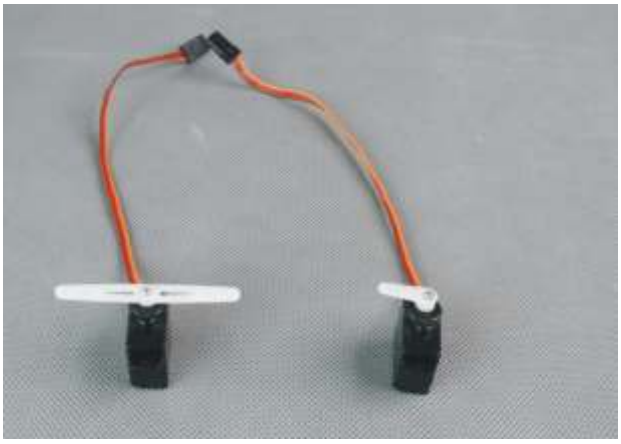


13.Installation of control horns.

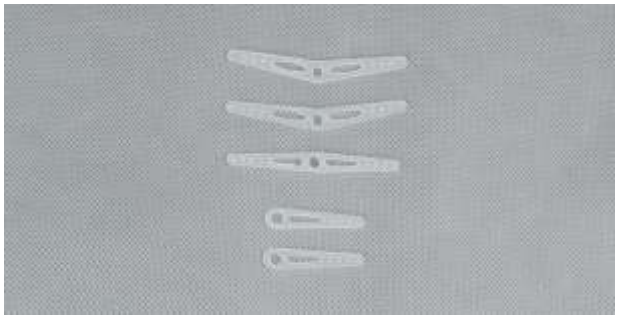
Install the control horns to the face of left and right aileron and fix them with glue.

Glue the bidirectional control horn to the elevator.

Glue the unidirectional control horn to left side of the rudder.

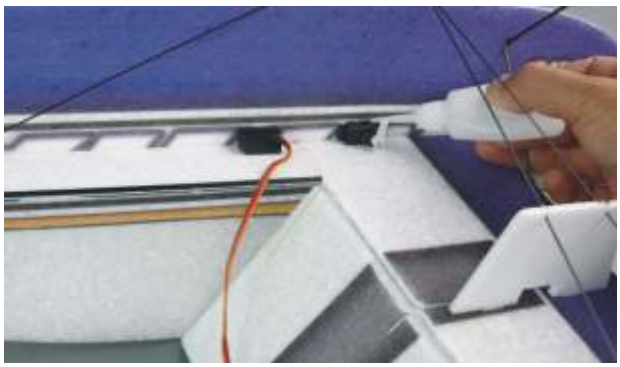


14.Installation of elevator and rudder servo.



Servo arm extension installation is optional.

The bidirectional servo arm used for elevator.



The unidirectional servo arm used for rudder. Please note the servo arm and rudder control horn should be at the same side.

15.Installation of the pull-push rod.

Cut off the 1.5mm carbon rods as the pull-push rods for aileron.

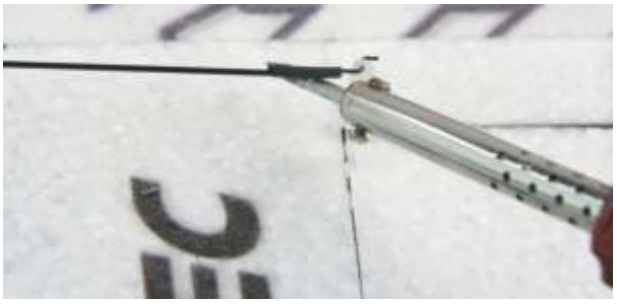
Cut off the shrink tubes to 6 pcs of 15mm.

Glue the Z bend to the pull-push rod.

Put the shrink tubes to the pull-push rod as picture shown, and then fix it with iron heating.

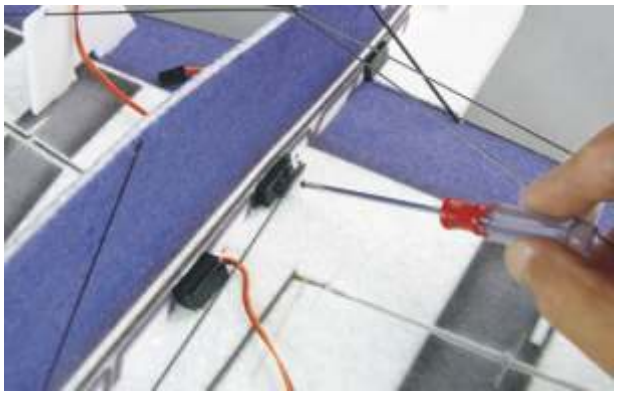
Fix the aileron for using adhesive tape, and then pass through the Z bend to the hole of control arm as picture shown.

Fix the Z bend and pull-push rod with glue.

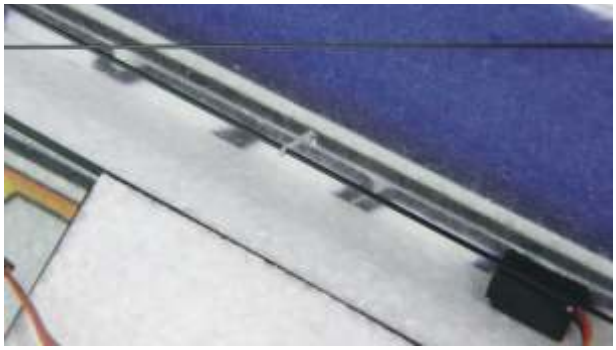


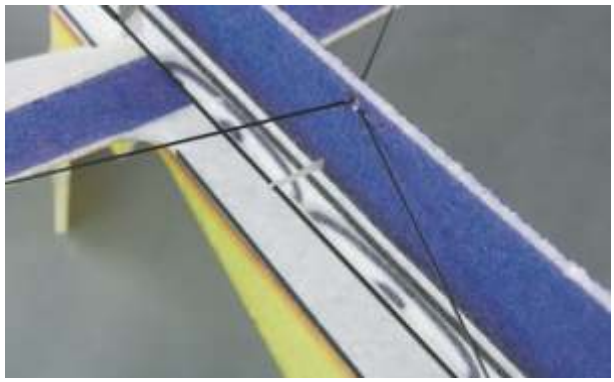
Fix the shrink tube with iron heating as picture shown.

Thread 2pcs support rods and 1pc shrink tube through the elevator pushrod, then connect one side with Z bend to the unidirectional servo arm.



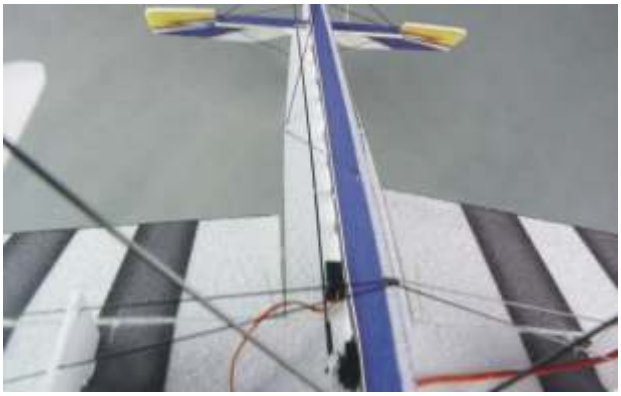
Servo arm installation.



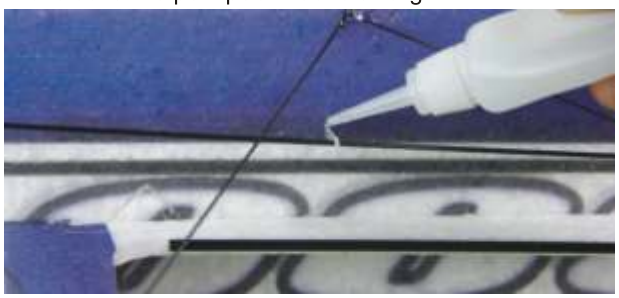


Find the right position for inserting the support rods. Please not do glue them at this step.

Fix the rudder with adhesive tape as picture shown, and then install the Z bend.



Mare sure the pull-push rod is straight.



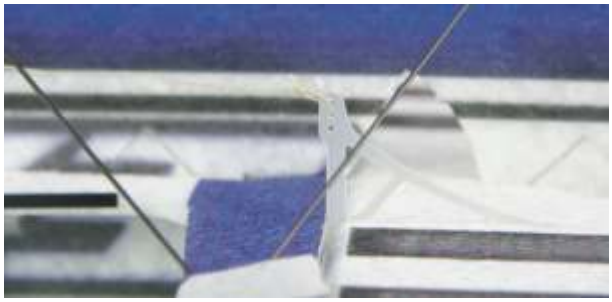
Glue the support rod tightly.

16.Installation of the pull-push thread.

Cut off two pull-push threads. It will be 6-8cm longer than the distance from elevator servo to the elevator servo horn.

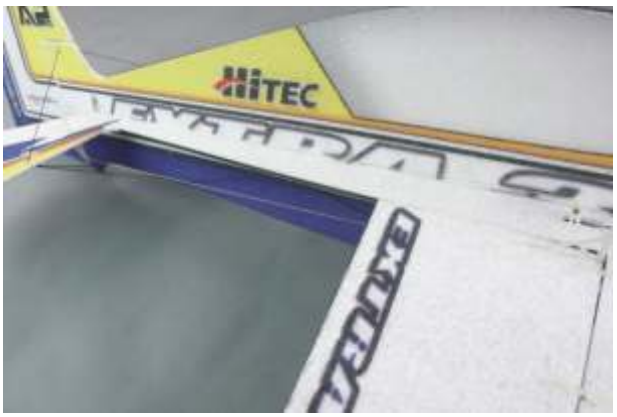
To make it stiffen and easy to pass through the small holes, drop some glue on the two ends of thread.

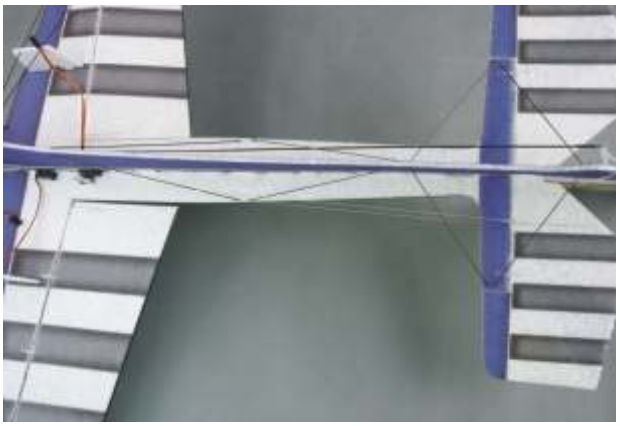
Make one of the thread end pass through the small hole on elevator, then tie a knot and glue it.



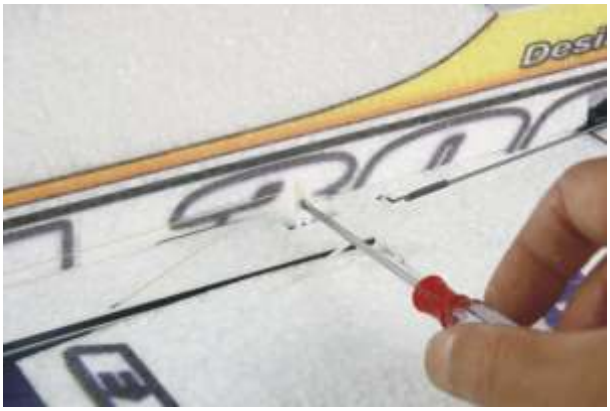
Cut off the extra thread.

Make the other end of thread pass through the two holes on servo arm, thus the pull-push thread could not be loosed easily.
Use the same way to install the other pull-push thread.

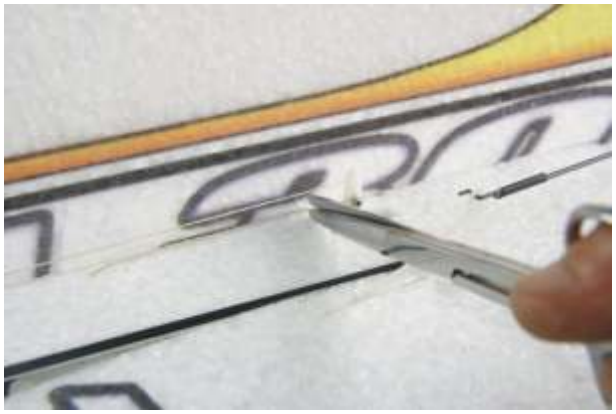




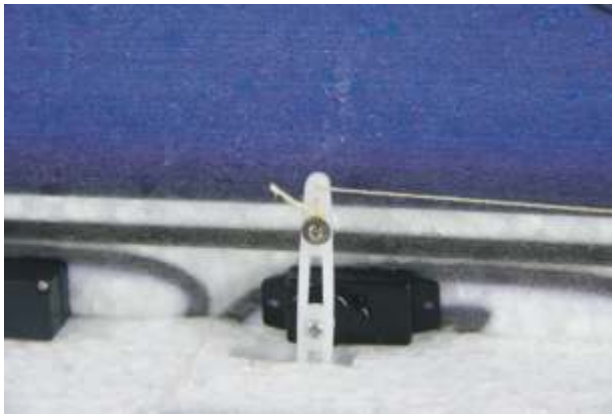
Adjust the two pull-push threads, make sure the elevator is in neutral position, and the thread have moderate elasticity.



Tighten the screws and fix well the pull-push thread.



Cut off the extra thread.

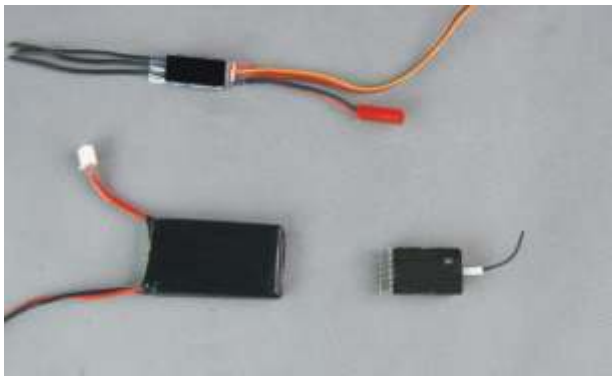


If the pull-push thread loosed after a period of flight, you can loosen the screw and adjust the thread to make it taut.

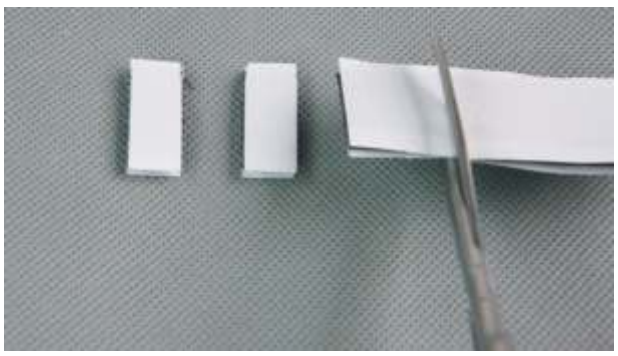
17. Use 1mm carbon rod to reinforce the upper part of the fuselage.

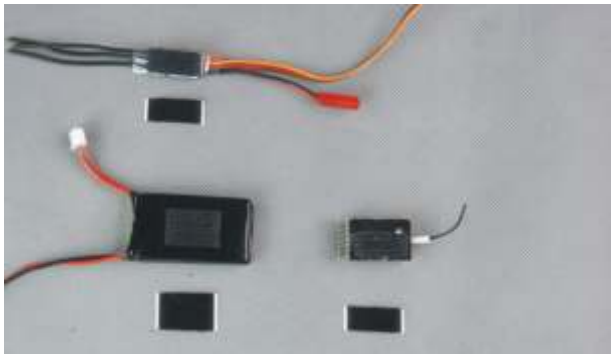
18.Installation of the motor and propeller.

Fix propeller with o ring.

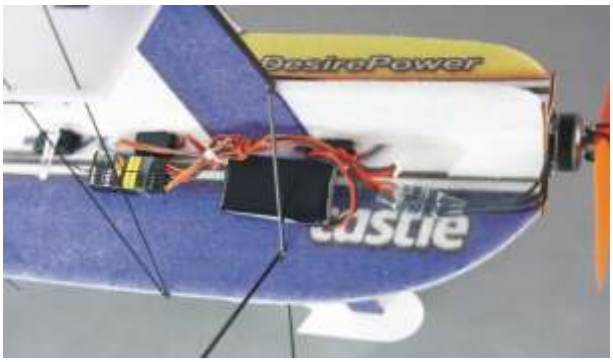


19. Installation of the electronic equipment.





Cut off three pieces of velcro, they are used for installing receiver, ESC and battery.



Connect well the servos and receiver. Then install the battery, ESC and receiver to the right position on nose.

The completion of the airplane assembly.

A perfect Extra300 3D EPP is done after your careful assembly. While assembly, the flying weight is really critical to the flight performance and will be affected by adding weight, so you should reduce any unnecessary weight while assembly. Then you'll get the best flying performance.

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