TECHone™

Piaget EPP

Instruction Manual

Specifications
Fuselage length: 900mm（35in）
Wingspan: 820mm（32in）
Flying Weight: 210~240g（with battery）

Additional Required Equipment
Motor: C20 Pro or 2205
ESC: 10A
Propeller: 8040/9050 Slow Flyer Prop
Servo: 6G
Radio: 4/more channel
Receiver: 4/more channel
Battery charger
Battery: 7.4V 800mAh Li-po

● Laser-cut 5mm genuine EPP parts for optimum strength and Minimum weight .
● Lightweight carbon fiber truss system virtually eliminates flex .
● Ideal for indoor flight and capable of outdoor flight in low winds.
● Minimal assembly required flight ready in as little as 3 hours .
● Vibrant screen printed trim scheme.

Introduction
Thank you for purchasing the Piaget EPP-F3P.
The Piaget ARF has super slow flight responsiveness so you can fly high-alpha 3D with authority. Its carbon fiber reinforced Piaget EPP construction provides the solid, precise feel of a balsa profile plane without the weight. This allows you to fly the Piaget ARF outside in windier conditions that would keep most other profile foamies grounded. The Piaget ARF is another exciting addition to TECH ONE's outstanding line of electric RC aircraft and accessories.
TECH ONE uses top-quality engineering and materials in everything it makes, so you always get the maximum level of value and fun. TECH ONE backs all of its products with the best customer service and support in the hobby so your electric flight experience is always a positive one.
These assembly instructions are designed to guide you through the entire assembly process of your new airplane in the least amount of time possible. Along the way you'll learn how to properly assemble your new airplane and also learn tips that will help you in the future. We have listed some of our recommendations below. Please read through them before beginning assembly.

Warning
An R/C aircraft is not a toy! If misused, it can cause serious bodily harm and damage to property. Fly only in open areas, preferably AMA (Academy of Model Aeronautics) approved flying sites, following all instructions included with your radio. Always assume the electric motor can come on at any time so use extreme caution. Before beginning assembly of your Piaget EPP, we strongly suggest that you read through this instruction manual so you can become familiar with the parts and the assembly sequence. Assemble the kit according to the sequence provided in the instruction manual. Do not attempt to modify or change the kit design as doing so could adversely change the models flying characteristics.

## Required Tools and Adhesives (not included in the kit)

5 Minute Epoxy
Glue
Aerosol Zip-Kicker
0 and #1 Phillips Head Screwdrivers
1.5mm Hex Wrench
Adjustable Wrench
Wire Cutters
Z-Bend Pliers
Needle Nose Pliers
Modeling Knife
Scissors
Electric or Hand Drill
Assorted Drill Bits
Straight Edge Ruler
Pencil
T-Pins
Builder's Triangle
220 Grit Sandpaper with Sanding Block
Masking Tape
Paper Towels
Rubbing Alcohol
Epoxy Mixing Sticks
Epoxy Mixing Cups
Soldering Iron

Kit Contents
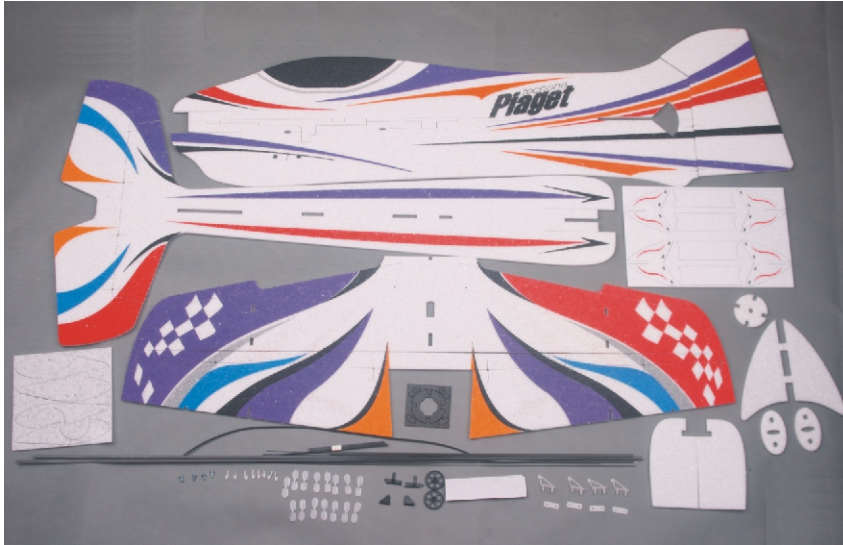
Fuselage side board   1
Fuselage main board   1
Wing with Ailerons   1
Horizontal Elevator   1
Rudder   1
Wing Fences（EPP）   2
Wing damping plate（EPP）   2
Landing Gear Struts 2.0*180mm   2
Doublers with Round Hole（EPP） 2
Wheel Covers（EPP）   2
Main Gear Wheels   2
Carbon Fiber Strips 1.0*800mm   2
Carbon Fiber Strips 1.0*400mm   1
Carbon Fiber Strips 1.0*100mm   4
Carbon Fiber Rods 1.0*500mm   7
Carbon Fiber Rods 1.3*700mm   2
Plywood Pushrod Supports   2
Steel wire 0.8*360mm   1
Control Horn Backplates   4
Control Horns   4
Heat-Shrink Tubing   1
Wood Screws   4
Plywood Motor Mount   1
Motor Mount（EPP）   1
Head-Strengthen Plates（EPP）   2
Hinges 15
Clevis 8
Velcro 1

1. Elevator
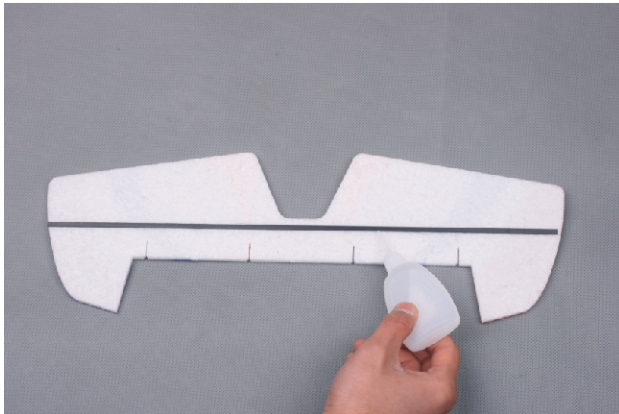
Cut a piece of carbon fiber strip to a length of 385mm, then glue it to the below of the elevator, fixing it with glue.
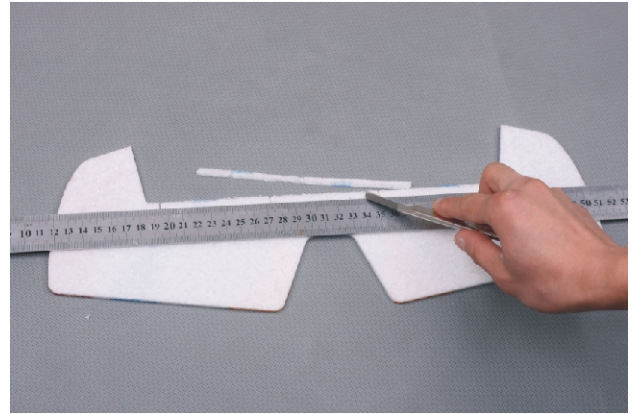
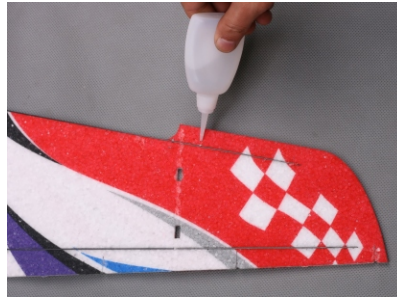Cut a 45 bevel into the bottom leading edge of the elevator.
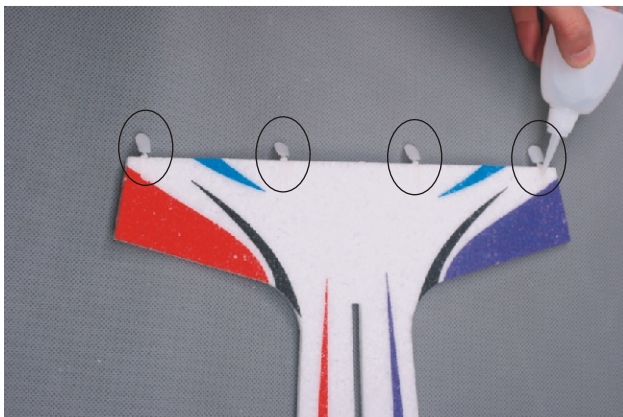
Insert the hinges into the precutting slot of the stabilizer and fix them with glue. Then hinge the elevator to the stabilizer with some glue.
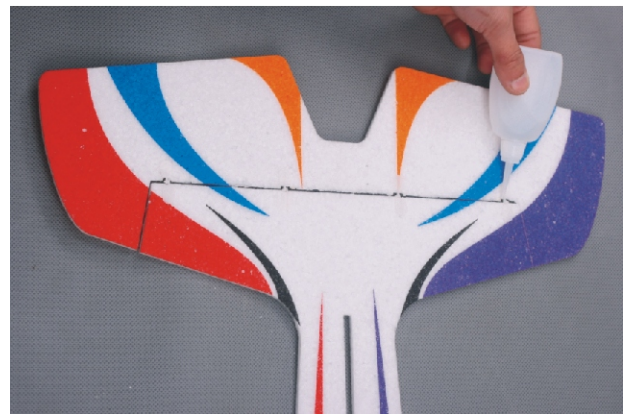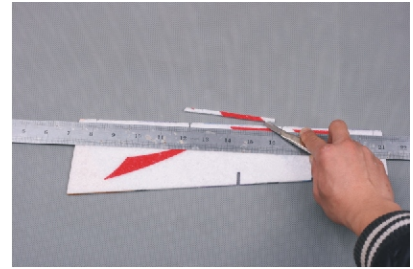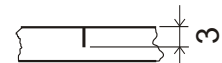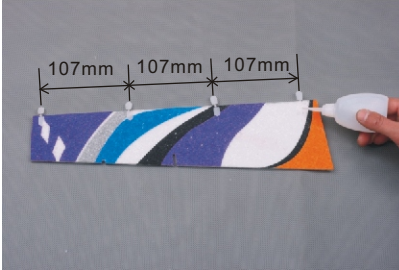
2. Wing
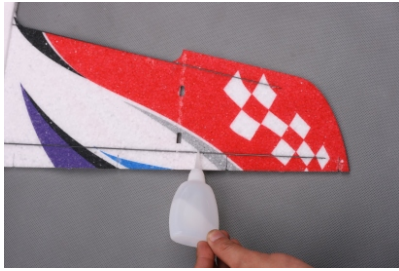
Cut a piece of carbon fiber strip to a length of 762mm, insert it into the precutting slot of the wing and fix it with glue

Cut two pieces of carbon fiber strip to a length of 305mm, stick them on to the edge of the wing with some glue which as picture showed.
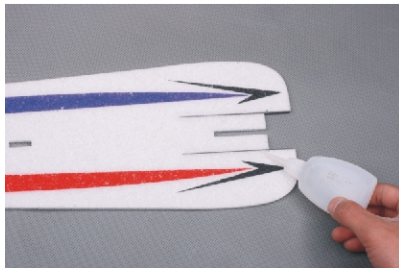

Cut a 45 bevel into the bottom leading edge of the ailerons.

107mm 107mm 107mm

depth : 3mm
length : 12mm

Hinge the ailerons to the wing, using the same techniques that you used to hinge the elevator.
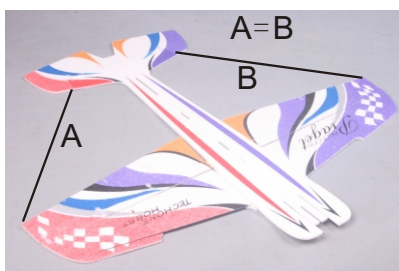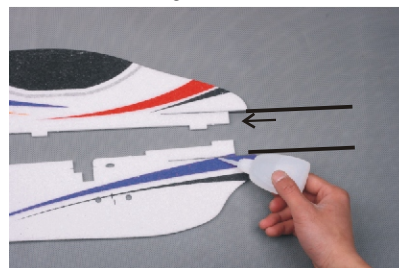
3. Fuselage

insert two 100mm long carbon strip into the precutting slots of the horizontal fuselage head , fixed with some glue.

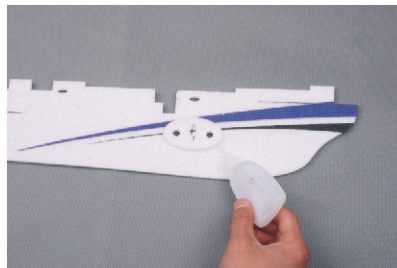Glue the horizontal doulbers (2pcs EPP strengthen plates) to the underside of the horizontal fuselage as shown

A=B

B

A

Locating hole

There is a locating hole on the wing and the fuselage to line up
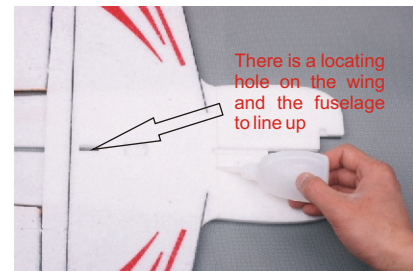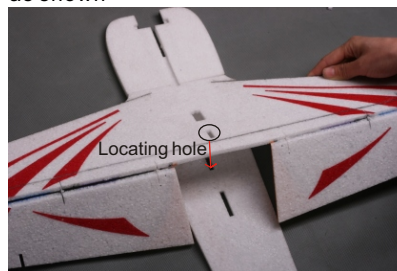
Locate the wing under the horizontal fuselage, Measure from the tips of the wing to the rear of the fuselage. The measurements must match from right to left, if not, adjust the position of the wing until both measurements are equal. Fix them with some glue.
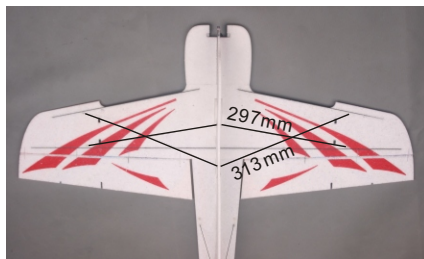

Locate the two Epp landing gear mounting plates . Glue a landing gear plate to each side of the fuselage in the location shown.

Insert two 100mm long carbon strip into the precutting slot of the vertical fuselage head. , fixed with some glue.
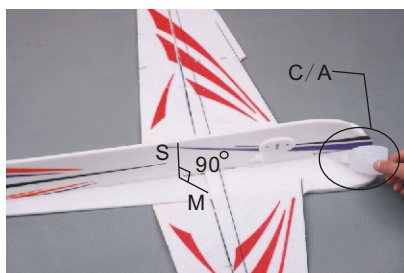
On a flat or level work surface, key the bottom vertical fuselage into the back of the horizontal fuselage and glue it. To make sure they are perpendicular .
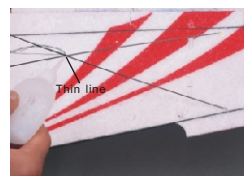

Hold the two carbon rods together with a line and some glue.

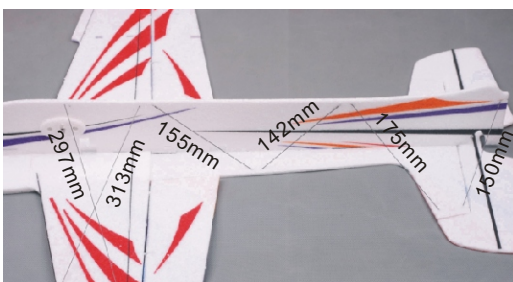Please cut the carbon rod to the proper size for the carbon brace.
313*1.0MM*2PCS
297*1.0MM*2PCS.
(Attached size for you refer to only）
Locate the carbon brace as picture showed and fix them with glue
Before glue the joints of carbon fiber rods and holes,please make sure The fuselage is perpendicular to the wing and no distortion of them.
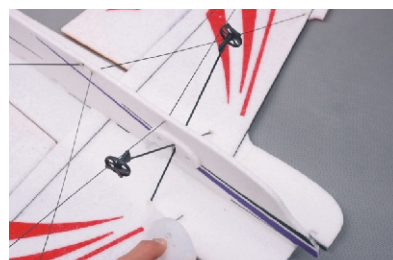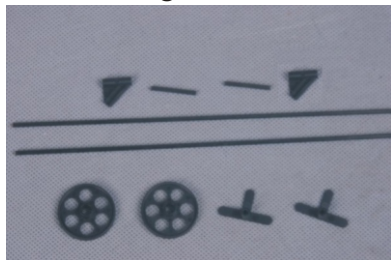

Cut the carbon fiber rods to the proper size as the picture shown.
Locate the carbon rods separately as picture showed and fix them with glue Before glue the carbon to the fuselage , please make sure The fuselage is perpendicular to the wing and no distortion of them . (Do Not glue the carbon to the fuselage at this time)

4. Landing Gear

Install and Locate the Landing gear. thread the Landing gear through the vertical fuselage and into the horizontal fuselage. Be careful, Do Not press the landing gear all the way through the horizontal fuselage. Glue the landing gear in place using some glue.
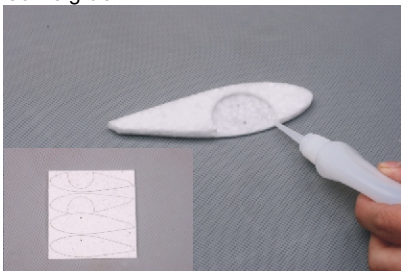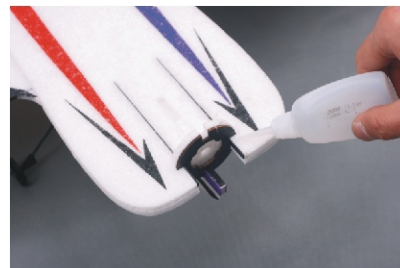

Slide one wheel pant onto each axle and up against the wheels, Align the wheel pants. Then glue them securely to the axles.

Glue the firwall to the EPP motor doubler with C/A glue.
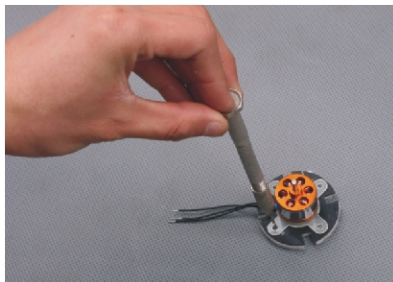
put the motor mount onto the firewall and drill the screw holes. sticking the drilled hole firewall with the head of plane
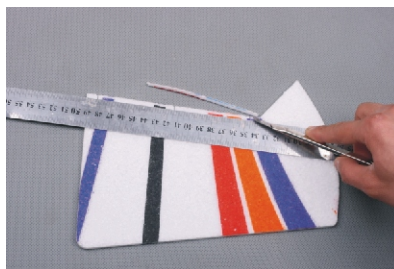
Key the top vertical fuselage to the horizontal fuselage, using some glue. Before glue the joints , please make sure the vertical fuselage is perpendicular to the horizontal fuselage.
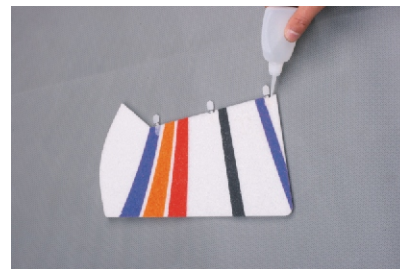

Same as assembly of elevator

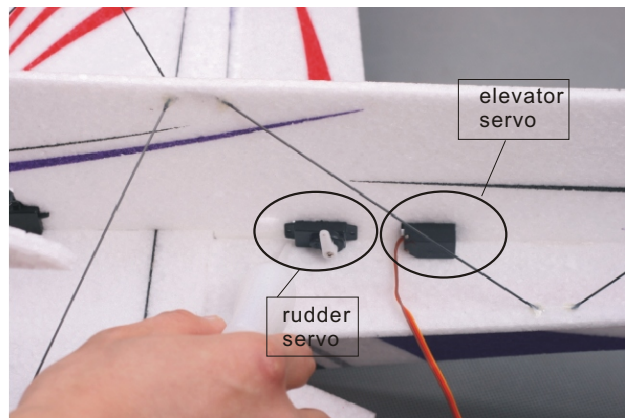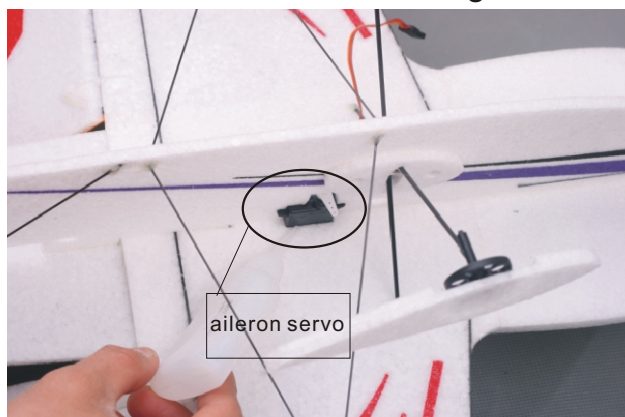Cut a 45 bevel into the bottom a left side of the rudder.

Cut the two carbon rods. One end of the carbon rod is fixed into the hole of the fin with some glue and the other end is fixed into the hole of the fuselage.
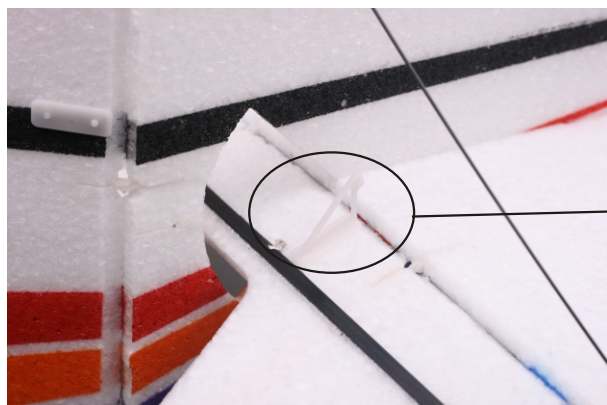Make sure they are vertical.

Fixed with some glue.

5. Servos and its connecting bar

aileron servo

elevator servo

rudder servo

Use some glue to secure them into place. Because the size of servos differs, you may need to cut the servo mounting hole larger to fit your particular servos.
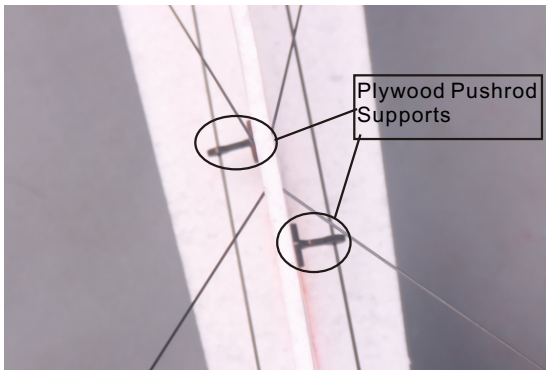

Please cut the carbon fiber rod to the proper size for the carbon pushrod.
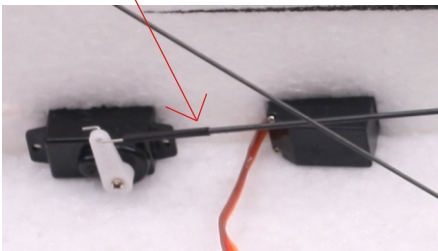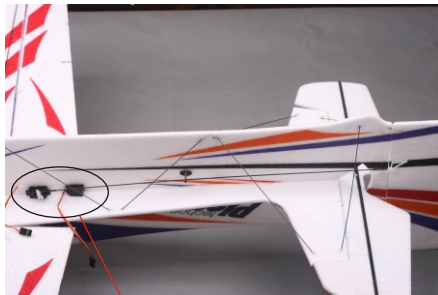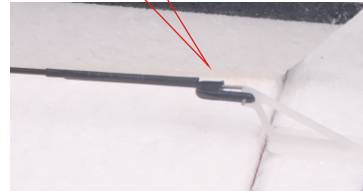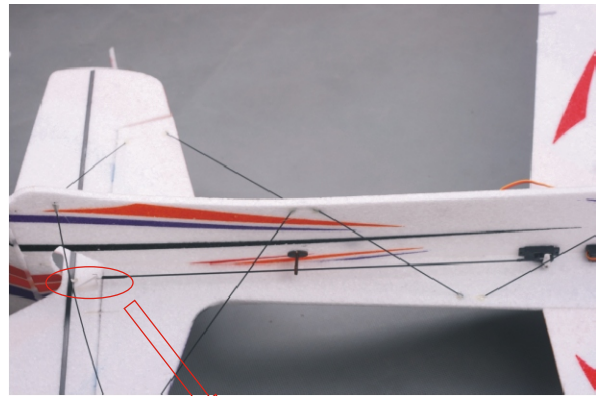(below size for you refer to only）
Rudder pushrod : 433mm*1.3mm*1pcs
Elevator pushrod: 332mm*1.3mm*1pcs
Aileron pushrod: 106mm*1.3mm*2pcs

Plywood Pushrod Supports

Fixed on the fuselage side board with some glue.
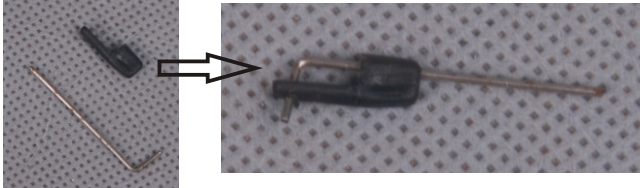
Secure one piece of wire to one end of the carbon fiber rod, using one piece of heat-shrink material. The piece of wire should overlap the carbon fiber rod at least 1" (25mm). Heat the heat-shrink material with a heat gun to shrink it into place. PRO TIP For extra security, apply a few drops of glue to the end of the pushrod and allow it to "wick" into the joint.
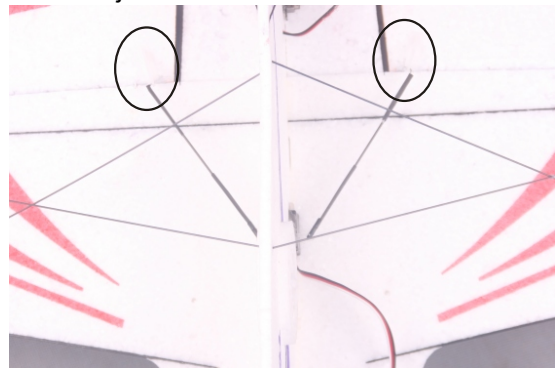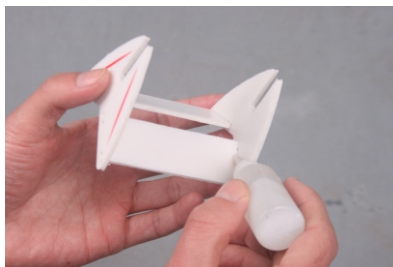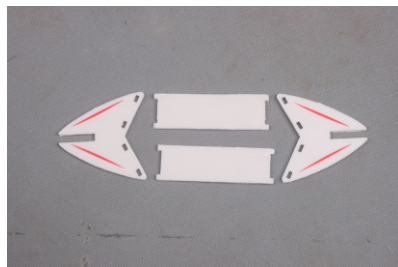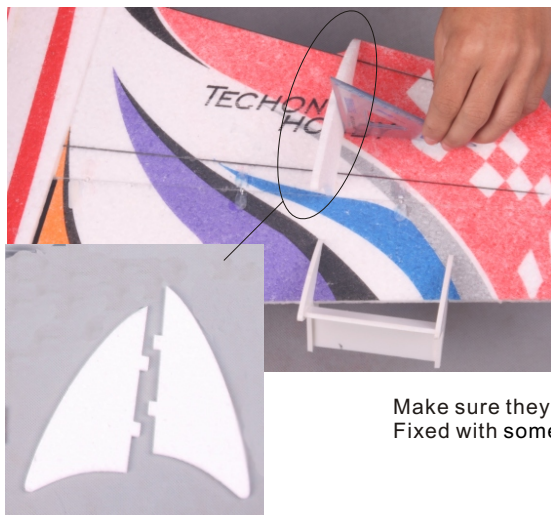

6. Motor

Assemble the motor onto the firewall, using the four wood screws provided. PRO TIP After flying the airplane, you may want to add right and/or down thrust to the motor. You can do this by adding thin washers between the motor mount and the firewall.

7. Wing damping plate

Fixed with some glue.

Make sure they are vertical,
Fixed with some glue.

8. Control System

ESC
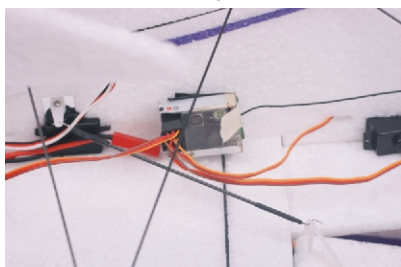
Mount your receiver to the fuselage side, using a piece of velcro.
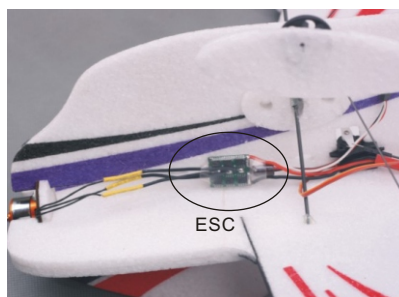
Mount your ESC to the fuselage, using a piece of velcro .
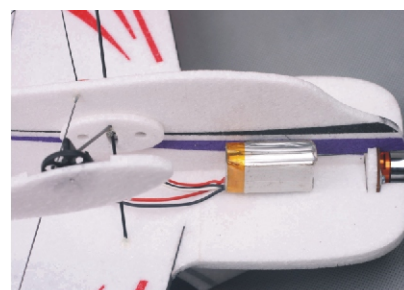
Assemble your battery into the battery compartment, using a piece of velcro.

Plug the servo and ESC leads into their proper slots in your receiver, then mount your battery to the fuselage, opposite the ESC. Run the antenna out the bottom of the fuselage and secure it along its length, using pieces of clear tape (not included). Do not cut the antenna shorter. Allow the excess to hang beyond the back of the fuselage.
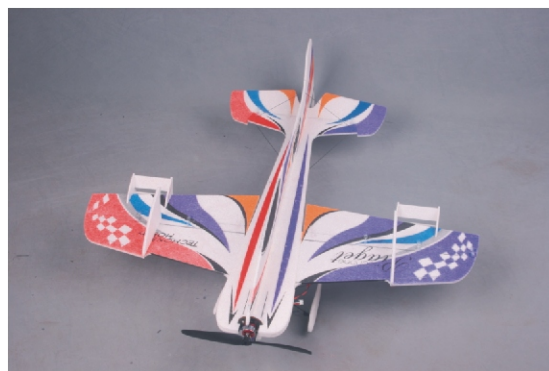
Motor Thrust

To ensure great flight performance and to be able to trim your airplane properly, it is critical that you adjust the motor thrust as described. We suggest that you add 2 degrees of down-thrust and 1 degrees of right-thrust. This can be achieved by adding a washer or two behind the top and right side of the motor (between the motor and the firewall). When set properly, the trim for the elevator and the rudder should be neutral. Fine-tune the down-thrust and right-thrust until this trim is achieved.

Balance Point

The Center of Gravity (C/G or Balance Point) is 3. 15" (80mm) from the leading edge of the wing, measured at the center of the wing.

WARNING For test flying and general sport flying, we suggest you balance the airplane at the C/G recommended above. For 3D flying, you may want to experiment moving the C/G back in small increments until you're satisfied with the result.

Control throws

Sport Flying
Ailerons:（32mm）1. 26″ Up and Down
Elevator:（28mm）1. 10″Up and Down
Rudder: (48mm) 1. 89″Right and Left
3D Flying
Ailerons:（88mm）3. 46″ Up and Down
Elevator:（84mm）3. 31″ Up and Down
Rudder:（144mm）5. 67″Right and Left
The control throws are measured from the widest point of the control surfaces

Exponential

Sport Flying
Ailerons: 20%
Elevator: 20%
Rudder: 20%
3D Flying
Ailerons: 45% - 55%
Elevator: 45% - 60%
Rudder: 45% - 60%
Exponential softens the response of the control surfaces around neutral stick. This makes the airplane easier to control while using such large control throws. The Exponential values shown are given as a percent. Please note that different brands of radio control systems may call for + or - Expo. Please check your transmitter's owners manual for more info.

Seek Assistance

If you are new to R/C we suggest you find an experienced pilot to check out your aircraft and help you with the first few flights. This will help prevent damage to your model and will speed up the learning process and making your R/C experience all the more enjoyable. You can contact local R/C clubs or your dealer to obtain the names of experienced R/C pilots who would be willing to help you with your first few flights. Although this is an ARF (Almost-Ready-to-Fly) kit, it does have some construction features that can be challenging to the less experienced modeler. If you encounter difficulty in any construction sequence, please feel free to contact one of our technicians, we stand ready to provide any assistance we can. Contact us at:

E−Mail: techonehobby@gmail.com