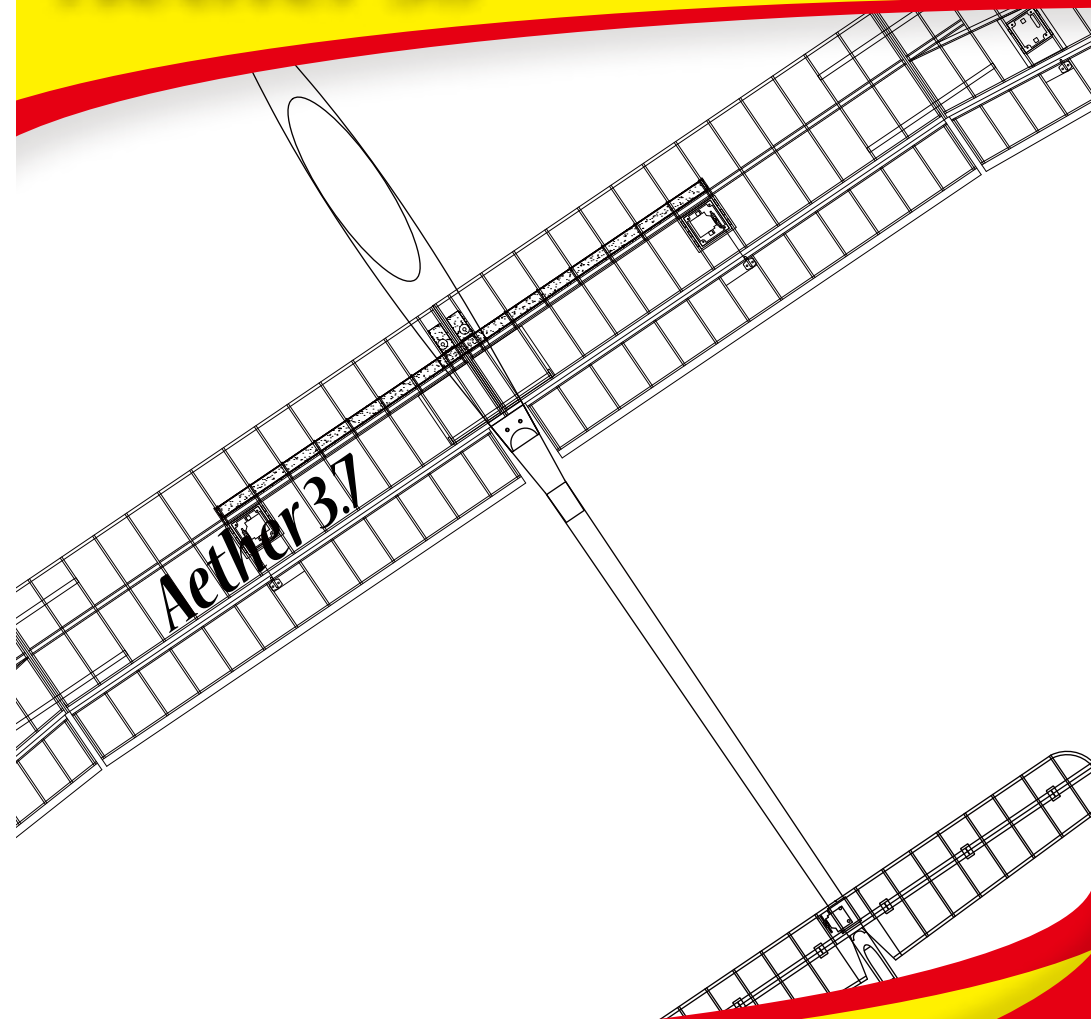




Aether 3.7



Specs:
Wingspan: 3715mm
Length: 1860mm
Weight: 2300g



Aether 3.7

Thank you for purchasing your HobbyKing Aether 3700 power sailplane. We hope you enjoy assembling and flying it as we did creating it. This large power sailplane is ideal for relaxed flying on those lazy days, or makes a great economy priced ALES platform.

Our Aether is a all balsa and tail mated to epoxy fiberglass fuselage and carbon boom. The large size model breaks down easily for transport thanks in part to the four part wing.

HobbyKing aircraft follow an extensive design, development, and testing process to bring reliable and user friendly products to the masses. They undergo extensive quality control checks at the factory.

Please read this instruction manual thoroughly before assembling and flying this model. It is not a toy and if mistreated has the potential to inflict bodily injury or damage property. It is your responsibility to complete final assembly, setup, and routine pre-flight checks. Always make sure to check for any loose screws or parts, and that the airframe is free from damage that may cause failure in flight. HobbyKing is not responsible for any injury or property damage inflicted due to negligence in assembly or maintenance.

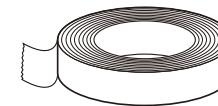
Warnings

- Select your flying area carefully. Always choose an open space that is unobstructed from trees, buildings, and away from crowded areas. Avoid flying in areas with roads, electric or telephone wires, or close proximity to full size air traffic.
- Do not fly this model in poor weather including high winds, low visibility, rain, or thunderstorms.
- Never attempt to catch this model whilst in flight. Even a slow moving model can cause harm to yourself or others.
- This model is recommended for children no younger than 14 years old. All children should always be supervised by a capable and responsible adult when operating this model.
- Always unplug your model battery when not in use. Do not leave the battery installed in the model when not in use.
- Remain clear from the propeller at all times when the flight battery is connected. A spinning propeller can cause bodily injury.
- Before flying always turn ON your transmitter first, then connect your flight battery to the model.
- After flying, always disconnect your flight battery first, then turn OFF your transmitter.
- Always exercise caution when charging batteries. Follow the recommended charging instructions from your battery manufacturer, and use a charger with charging parameters that match your battery type.

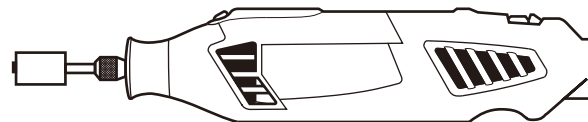
Tools Required



Ruler



Clear Tape



Rotary Tool



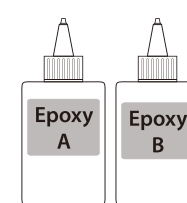
Hobby Knife



Thread Lock



Thin/Thick CA



30 Min Epoxy



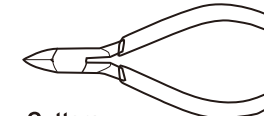
Hex Driver 1.5mm 2.5mm



Phillips Screwdriver



Pliers



Cutters



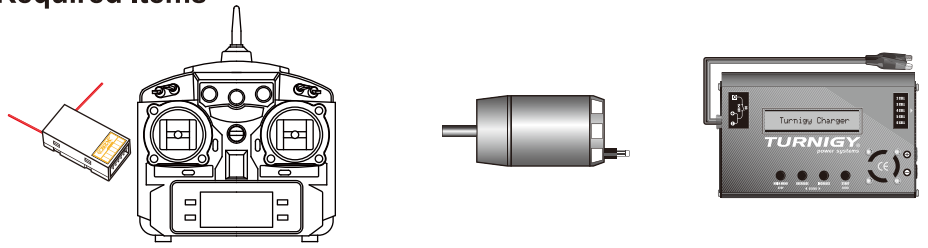
Drill Bit - 2, 3mm

Contents

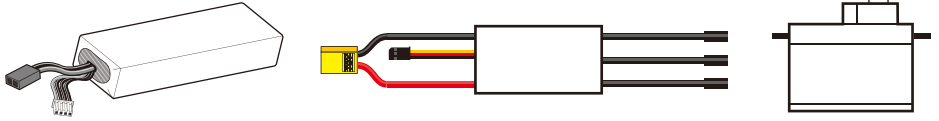


Aether 3.7

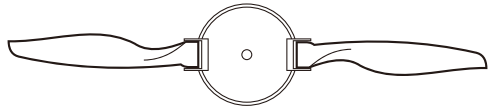
Required Items



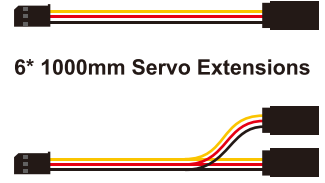
5+ Channel Transmitter + Receiver 3858 840kv GliderDrive Motor LiPo Charger



4S 14.8V 3300~4000mAh Lipoly 60A ESC 6x17g Servos



50mm Spinner and Folding Prop



6* 1000mm Servo Extensions
2* Y-Lead

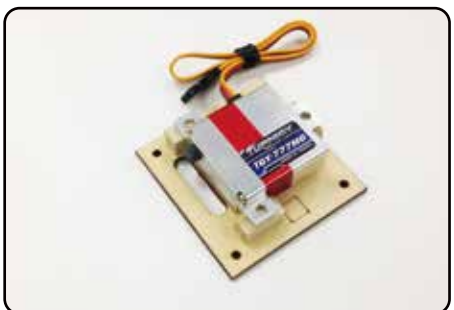
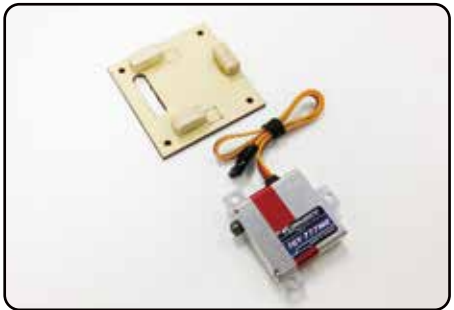
Wing Assembly



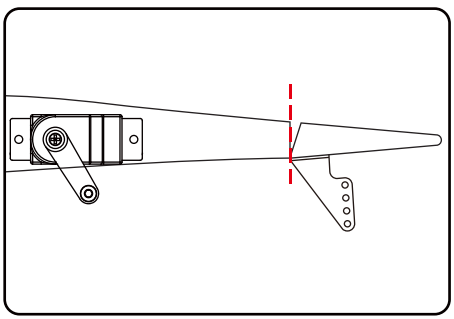
1) Locate center wing panels and hinge flaps with clear tape such as Blend-erm. The bottom of wing is a full strip. On the top of the wing, 4~5 well placed lengths will sufficiently support the flap.



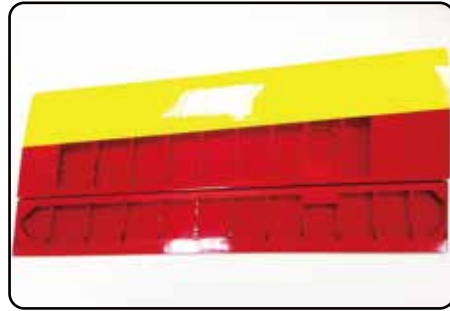
2) Remove covering material at flap servo mounting location. Then trial fit flap servo cover in place. Note* Flap servo covers are slightly wider than aileron servo covers.



3) Using the small balsa blocks in the hardware package, mount your choice of servos to the flap servo cover. For best results, center output shaft in the middle of the slot, this allows full travel of the servo without binding.



4) Mount control horn in line with slot in servo cover. Mount horn backwards on flap as shown. This will yield additional flap travel, up to 90 degrees.



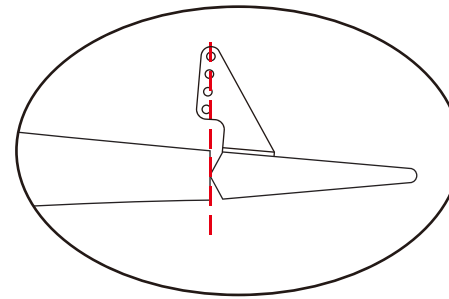
5) Hinge ailerons with included CA style hinges. Your Aether has hinge slots that are pre-cut. They will show through on the transparent covering. Glue hinges with thin CA.



6) Collect aileron hardware. 2* clevis, control horn and back plate, 55mm control rod, and 2* M2 x 25mm Screws.



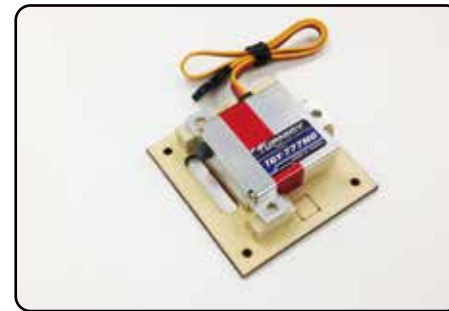
7) Cut covering from aileron servo bay. Test fit aileron servo cover. Note, aileron servo covers are slightly narrower than flap servo cover.



8) Mount aileron control horn, lining up the control horn with the slot in aileron servo cover. For best control authority, align the clevis holes with the hinge line.



9) Attach control horn with hardware 2* M2 x 25mm screws.



10) Mount servo to aileron servo cover with included balsa blocks and attach control rod to control horn. Adjust clevis until control surface is centered with servo arm at 90 degrees to servo arm.



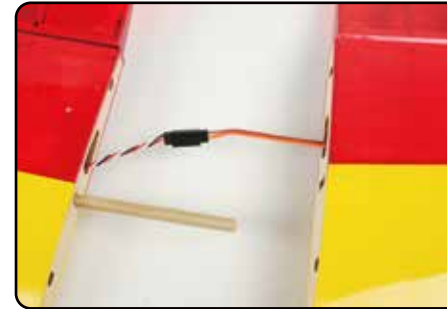
11) Locate outer wing tip joiners and 5mm anti-rotation pins. Note, larger end of wing joiner is inserted into outer wing panels.



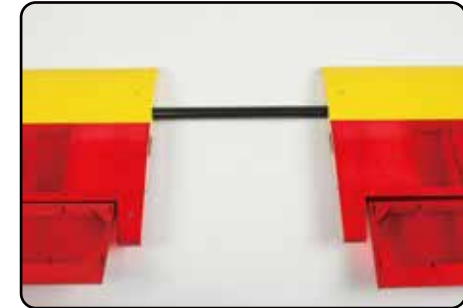
12) Insert anti-rotation pin into wing panel. Glue in with 30 minute epoxy leaving half of the pin exposed. The wing joiner can be left unglued.



13) Insert wing tip panel into aileron wing panel. It can be secured with clear tape if you intend to remove for transport or can be glued with 30 minute epoxy.



14) When assembling the outer wing panels (wingtip and aileron panel section) to the center portion of the wing, secure aileron servo clip with tape or a connector clip. The wings are joined with the fiberglass wing joiner and 8mm black glass fiber rods.



15) The two center wing panels are joined with the large main spar tube, and small rear tube. They can be glued together permanently if desired, or two pieces for easier transport.



16) Attach wing to fuselage with nylon screws and nylon washers. Long screws in the front holes, and short screws in the back. These are strong enough to fly, but will break easily in hard landings, reducing damage to model.

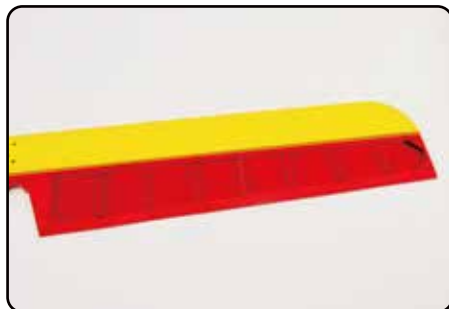
Horizontal Stabilizer



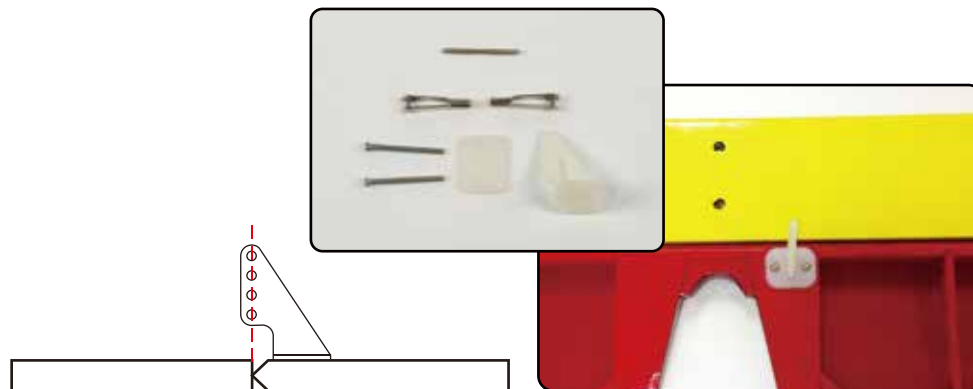
1) Locate stabilizer mount, and remove covering material where the tail boom is installed. There is a hole for the elevator servo on either side. It can be mounted on either.



2) Slide stabilizer mount onto tail boom. One end has a larger hole than the other, with the larger hole facing forward. Slide mount forward enough to cover the cutout for servo lead, allowing enough room for the elevator to clear the vertical fin. Mount is glued to boom during the fuselage assembly stage on page 13.



3) Hinge elevator to horizontal stabilizer with 3 hinges per elevator half. Use thin CA glue to secure hinges.



4) Mount elevator control horn lining it up with the output shaft of your servo. Align holes in control horn with the hinge line of the model.



5) Attach horizontal stabilizer to mount with M4 thumb screws, and plywood anti-crush plate. This can be removed for transport if desired.



6) Install your servo and linkage to the elevator. For best results, set elevator servo arm to 90 degrees to servo.

Vertical Fin



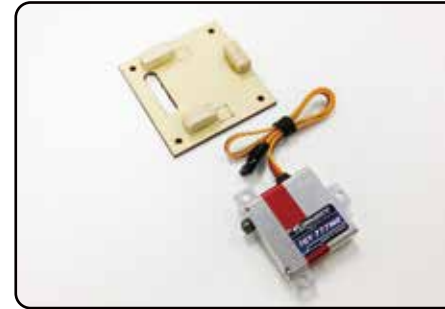
1) Start by removing the covering for the servo mount from the left side of the fin. Test fit the servo cover.



2) Hinge rudder to fin using 3 CA hinges from hardware pack. Glue hinges in with thin CA glue.



3) Collect rudder hardware. 2* clevis, control horn and back plate, 25mm control rod, and 2* M2 x 20mm Screws. Align control horn with slot in servo mount plate. Drill 2mm holes for control horn and mount using the hardware noted.



4) Mount choice of rudder servo using included balsa mount blocks to rudder mount plate. Secure servo/plate to vertical fin with 4 pieces of flanged screws and attach control rod.

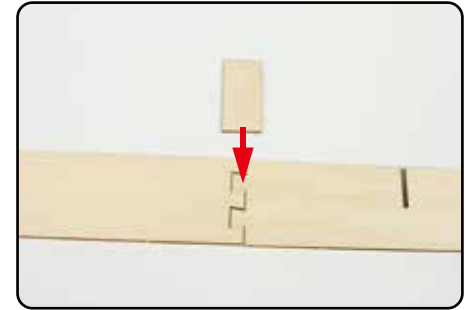
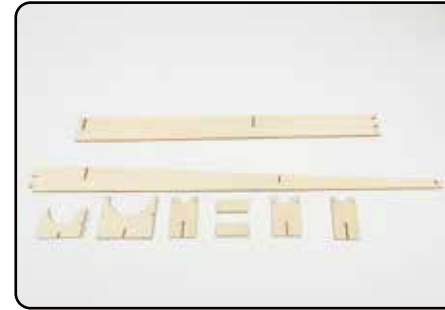


5) Screw vertical fin and profiled fin mount to boom using M4 x 30mm machine screws.



Fuselage Gluing

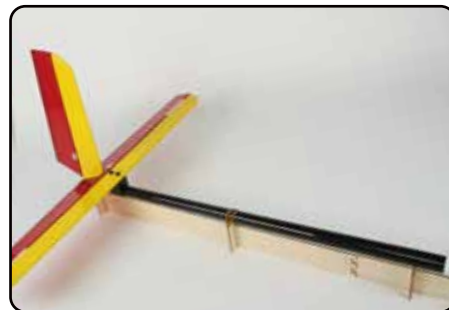
Included in the box is a plywood gluing jig. This is to facilitate better boom/fuselage alignment. We suggest 30 minute epoxy to allow sufficient time to get everything aligned.



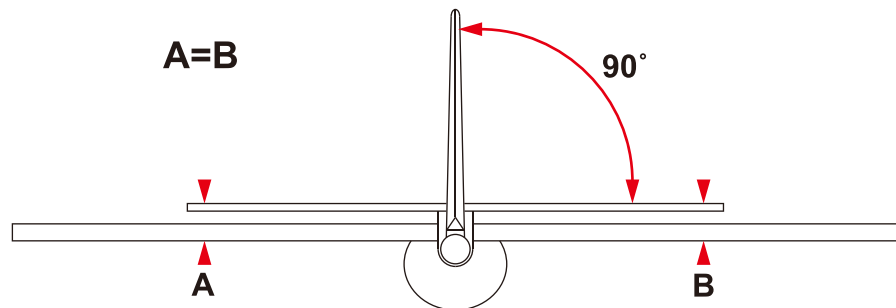
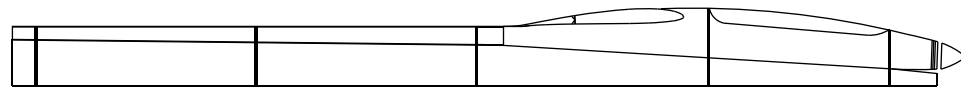
1) Assemble gluing jig parts, reinforcing the two long pieces with the small plywood rectangles. Make sure to keep the bottom edge straight. All of the cross section pieces have a different depth slot, so if they do not fight right, they're in the wrong slot.



2) Sand the fuselage pod and inside the boom where the two pieces will mate. This will allow the glue to hold better.



3) Glue boom to fuselage pod with 30 minute epoxy. Glue horizontal tail mount on at the same time. Horizontal tail and wing saddle should be parallel, with the vertical fin perpendicular (90 degrees) to the wing/horizontal tail. Each support station has notches to hook rubber bands around to hold the fuselage/boom secure while the glue cures.

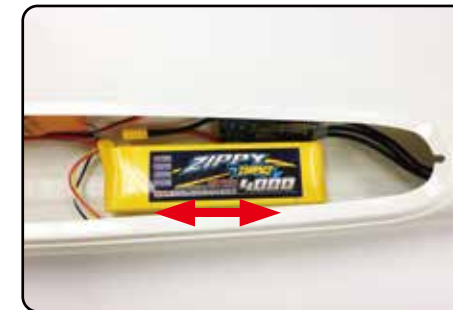
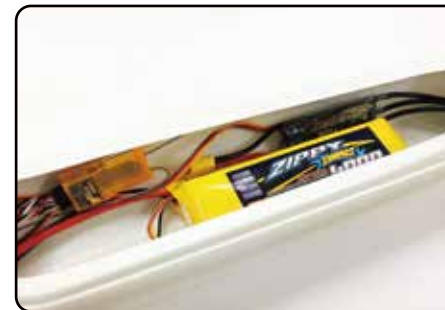


Final Setup



1) Install choice of power system. Secure motor mounting screws with removable strength thread lock.

Note* Production units have 25mm, and 16x19mm mount locations



2) Install receiver, secure to fuselage side with double sided tape. Locate battery in fuselage, securing with Velcro to fuselage to prevent shifting in flight. Move battery to achieve CG indicated on the next page.

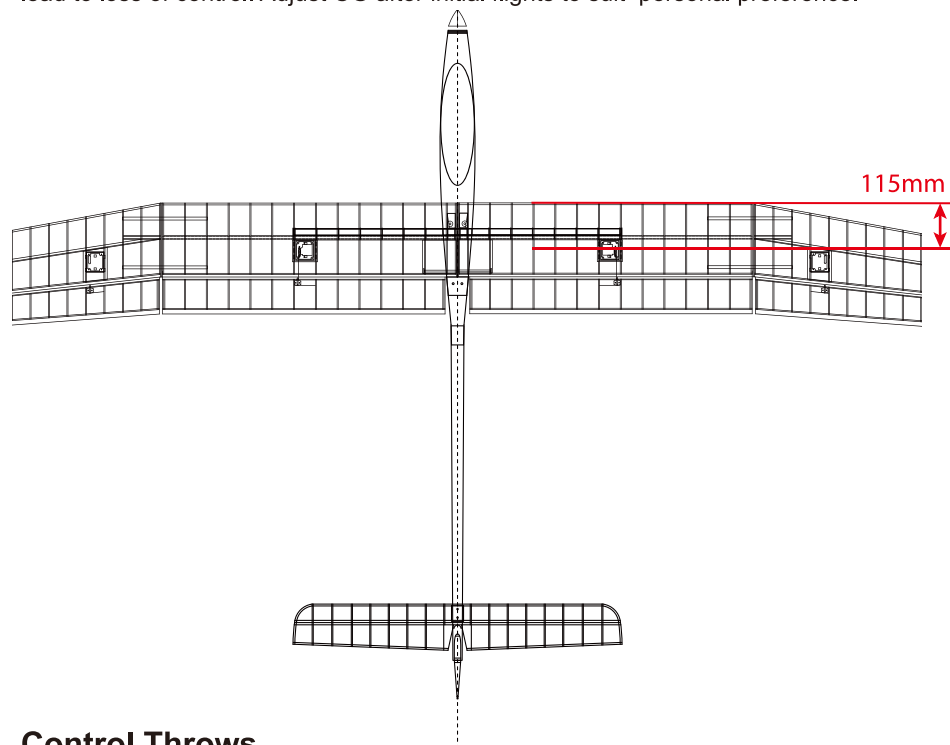


3) Hatch installs by first inserting the back wire keeper into fuselage. Push backwards until front wire clears fuselage. Then slide forward until hatch seats in place.

Aether 3.7

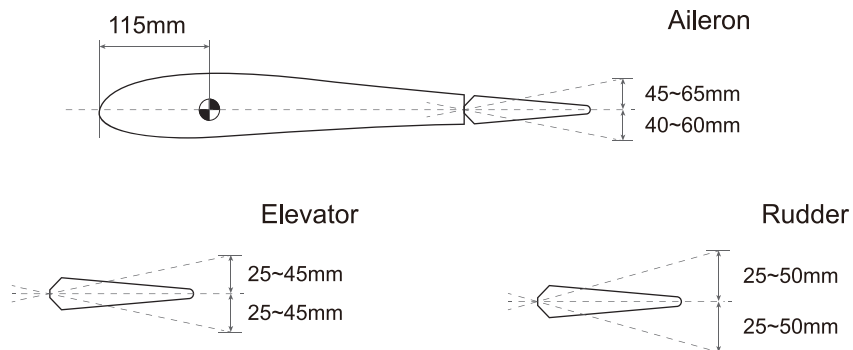
Center of Gravity

Set CG to position indicated below with the battery fully charged. An incorrect CG can lead to loss of control. Adjust CG after initial flights to suit personal preference.

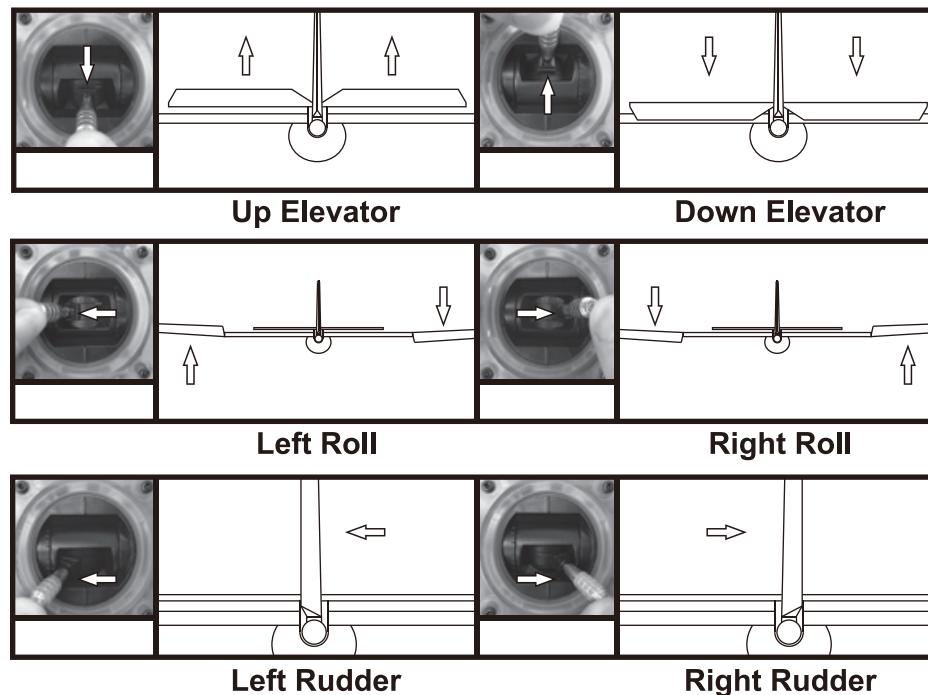


Control Throws

The control throws below are a recommended guideline and can be adjusted to suit personal preference. It is suggested to test fly on low rates while getting comfortable with the model.



Control Check



Pre-Flight

- 1) Before flying this model, check that the model is assembled per this manual and is free from any damage that may have occurred during transport.
- 2) Insert flight battery and check for proper center of gravity. Secure battery with velcro on the bottom of pack and velcro strap around it. If the battery shifts in flight it could cause a loss of control.
- 3) Ensure that pushrods and control surfaces move freely with no binding. For best results, disconnect pushrods and flex the surfaces by hand to free up the hinges. Reconnect control rods prior to first flight.
- 4) After turning On the transmitter and connecting the flight battery, perform a full range test and finally, check control direction per the guide on previous page.
- 5) Conduct a full power test. If there are excess vibration, inspect the propeller for damage or a bent propeller shaft.
- 6) Inspect your flight location, making sure it is free from trees, vehicles, people, or other obstructions before taking off.
- 7) Before flying, ensure the propeller brake on your ESC is enabled. If not, the propeller may windmill and not fold properly, which can lead to a prop strike on landing.
- 8) Set timer on your transmitter for 10 minutes for your first few flights. Check capacity of battery used on these flights and adjust your timer accordingly.
- 9) Apply power smoothly, and firmly hand launch the Aether at a flat angle, if slightly up. Allow the model to gain speed before applying up elevator.
- 10) Test how the model reacts during a stall at a high altitude before committing to landing. Reduce power, apply up elevator to induce a stall. Upon the stall break, release elevator, apply power and recover.
- 10) For landing, reduce power, using the elevator to control the pitch attitude, and use power to control your descent rate. Cut power to motor before touch down to prevent propeller strikes.

Recommended Accessories



Turnigy NanoTech A-Spec G2
4S 14.8V 3200mAh
Sku: 9472000008



Orange Tsix 6 Ch Transmitter
Sku: 9403000063 (Mode 1)
9403000064 (Mode 2)



Orange RX R615X DSM2/DSMX
Sku: 9442000031



AeroStar 60A ESC
Sku: 9164000038

Other Great HobbyKing Airplanes



HobbyKing Pietenpol Aircamper 1370mm
Sku: 9110000033



Duraflly ME-163 Komet 950mm
Sku: 9306000109 (PNF)



HobbyKing Mini Skyhunter 1238mm
Sku: 954000007 (PNF)
954000009 (KIT)



HobbyKing DC-3/C-47 1600mm
Sku: 9306000074 (DC-3)
9306000073 (C-47)