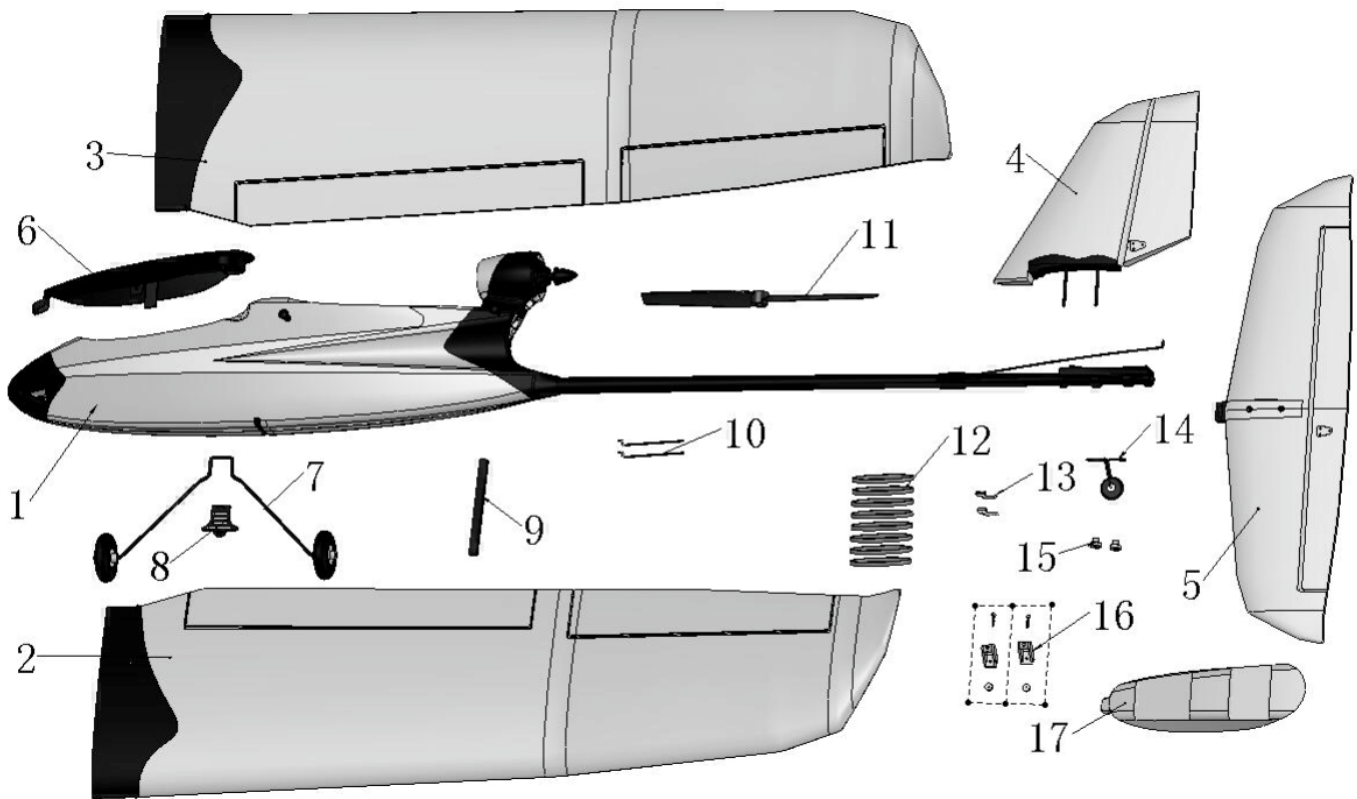
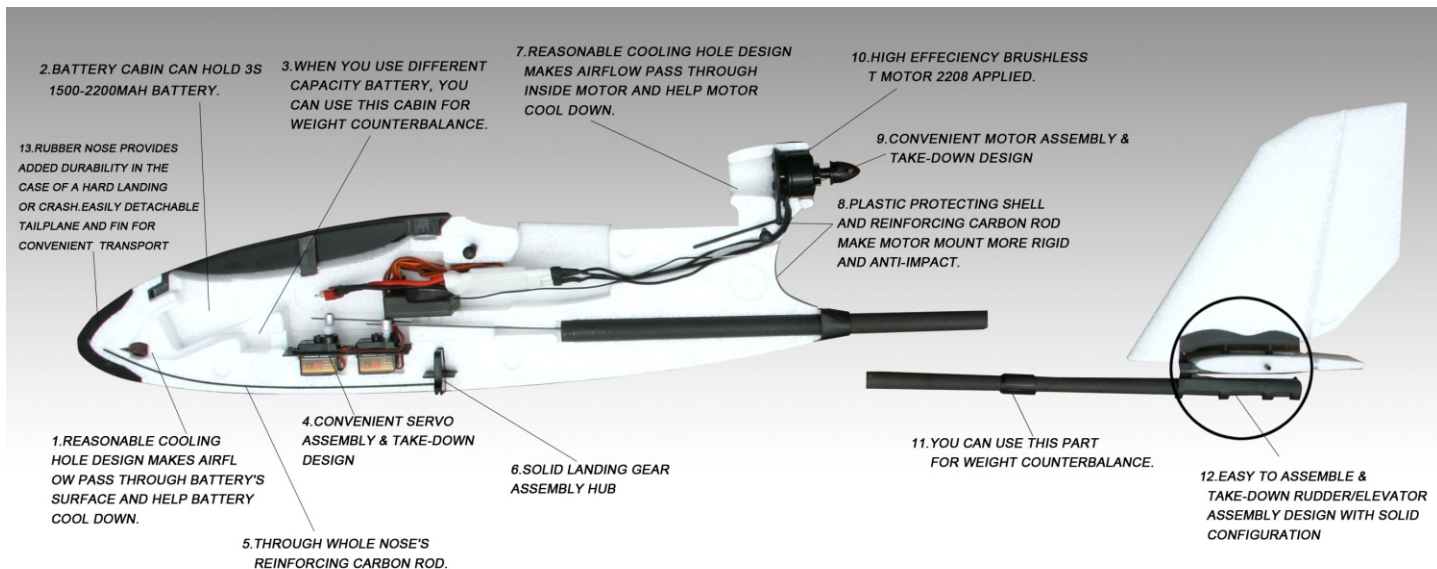


Skynetic Cardinal Black 1400mm (55.2") Wingspan



- | | |
|------------------------------------|-----------------------|
| 1. Fuselage | 10. Flap Pushrod |
| 2-3. Wing Halves | 11. Propeller |
| 4. Vertical Stabilizer /Rudder | 12. Rubber Band |
| 5. Horizontal Stabilizer /Elevator | 13. Linkage |
| 6. Canopy | 14. Tailwheel |
| 7. Main Landing Gear | 15. Tail Nut |
| 8. Landing gear fixing piece | 16. Flap Control Horn |
| 9. Wing Tube | 17. FPV Canopy |



The RTF include



Features:

1. Rubber nose provides adding durability in the case of a hard landing or crash.
2. Easily detachable tailplane and fin are for convenient transportation.
3. Removable landing gear applied.
4. Proportional 4-channel control with working throttle, ailerons, rudder and elevator. 2.4GHz radio control.
5. One-box purchase—everything needed to fly comes in the box and easy to be assembled in minutes. Just open the box and fly.
6. Optional flaps for assembly, you not only can learn how to fly, but also its great gliding performance can make you have great glider experience and enjoyment.
7. The parts that adjusting the angle of flaps are included. If you feel it flying too fast in learning period, you can install this part to low down the flying speed.
8. Three upper dihedral angles on wing assure its great stability.
9. Equipment canopy specially for FPV is included.

Specifications

	RTF	PNP	KIT+MOTOR
Motor MS2208 KV 1550	Installed	Installed	Installed
ESC 20A With BEC	Installed	Installed	Needed to complete
Servos 8g servo	Installed	Installed	Needed to complete
Battery 3S 11.1V 2200mAh Li-Po	Installed	Needed to complete	Needed to complete
Charger 2-to-3-cell Li-Po Charger	Installed	Needed to complete	Needed to complete
Receiver	Installed	Needed to complete	Needed to complete
Transmitter 2.4G	Installed	Needed to complete	Needed to complete

Specification	
Wingspan	55.1 in (1400 mm)
Length	40.5 in (1030 mm)
Propeller:	6X4E prop

■ Charger Introduction

Thank you for purchasing B3 20W Pro Easybalance charger. This charger is compact and light, which can charge 2s or 3s of battery packs especially there is separated corresponding balance port for each battery pack. Before using it, please read the user manual carefully.

■ Specification

Input Voltage: 100-240V AC
Output Current: 1600mA
Display: 3xBicolor LED
Size: 92mm*59mm*35.5mm
Weight: 100g



■ Instructions

1. Please firstly connect the B3 20W Pro charger to power, while the three power LEDs show green, which indicates that the charger works in good order.
2. (Set 3s battery pack for example) Secondly, please connect the battery pack to 3s balance port, while the three power LEDs will all turn into red and charging begins.
3. When the three power LEDs all turn to green the charging for 3S battery pack is finished.

■ ▲ WARNING

Please correctly connect the B3 20W Pro charger to power and battery pack according to the procedure outlined in the user manual.

Please use this charger under supervision.

Please place the charger in a dry environment and keep it away from fire.

Please don't touch the charger and power cord or replace it, or else the fire/electric shock will be caused.

Please don't touch the charger and power with wet hands or it will bring in electric shock.

To extend the working life of the charger, please remove it from power once charging is finished.

Children must be watched by adults to use the charger.

■ PACKING LIST

B3 20W Pro Charger x1
Power Cord x1
Manual x1

Installing the Transmitter Batteries

Insert batteries in the transmitter

CAUTION: If using rechargeable batteries, charge only rechargeable batteries.

Charging non-rechargeable batteries may cause the batteries to burst, resulting in injury to persons and/or damage to property.

CAUTION: Do not pick up the transmitter by the antenna.

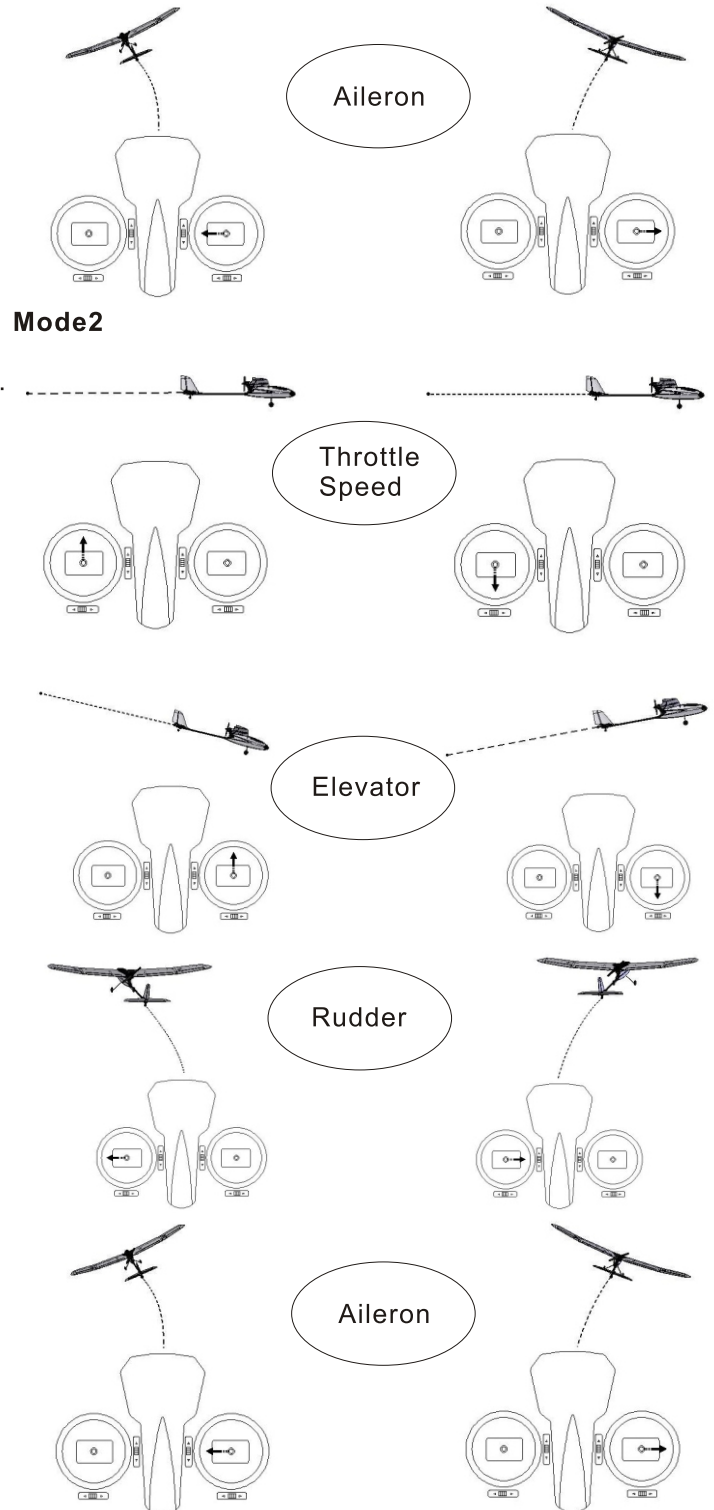
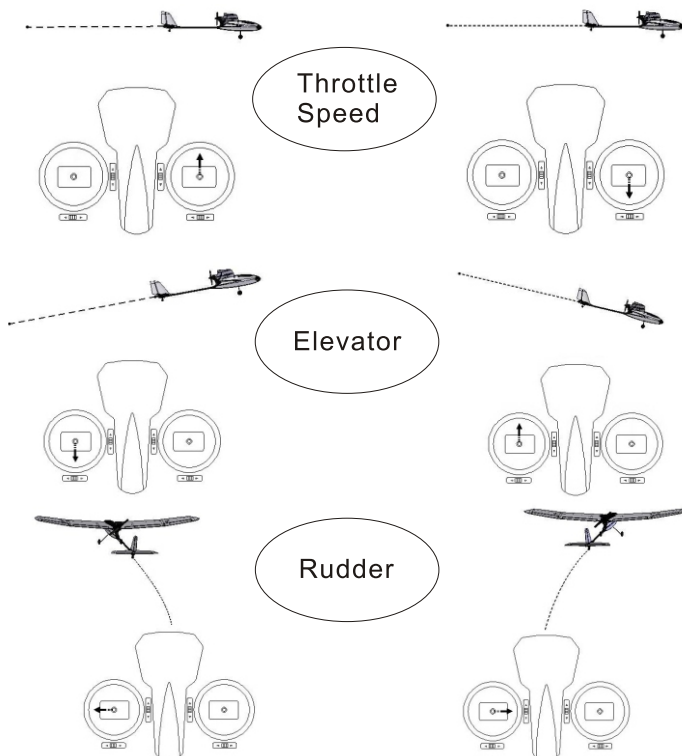
Do not alter or put weight on the antenna. Damage to antenna parts can decrease transmitter signal strength, which can result in loss of aircraft control, injury or property damage.

Fly control

For smooth control of your aircraft, always make small control moves. All directions are described as if you were sitting in the aircraft.

For example, when the aircraft's nose is pointing toward you, left steering (rudder) will turn the aircraft left (your right while holding the transmitter).

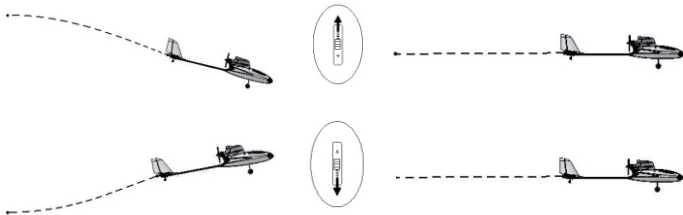
Mode1



- Flying faster or slower: When your aircraft is stable in the air, push the throttle stick up to make the aircraft go faster, and pull the throttle stick back to slow down. The aircraft will climb when the throttle is increased.
- Elevator up and down: Push the elevator stick forward to make the aircraft go down and pull the elevator stick back to go up.
- Steering right and left: Move the rudder or aileron stick right to make the aircraft go right and move the rudder or aileron stick left to go left (as if you are seated in the cockpit).

Flight Trimming

Elevator trim:

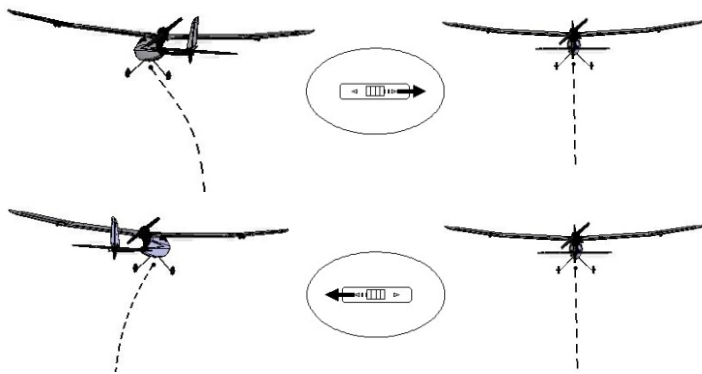


Only trim the aircraft at half throttle. When trimmed correctly, your aircraft climbs steadily at full throttle and will fly level at half throttle.

- When the aircraft's nose drifts up or down while the elevator stick is at neutral (centered) position, push the elevator trim button by one or two "beep" increments OPPOSITE the direction of drift.

- Adjust trim so the aircraft flies straight and level when the elevator stick is neutral.

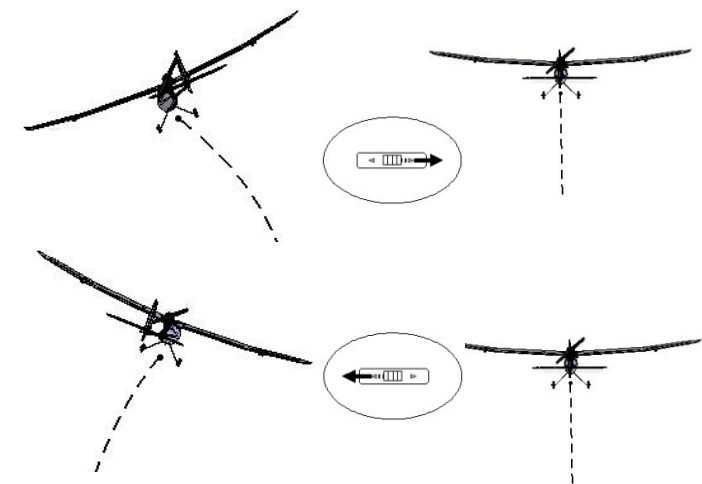
Rudder trim:



- When the aircraft drifts left or right while the rudder stick is at the neutral position (centered), push the rudder trim button by one "beep" increments OPPOSITE the direction of drift.

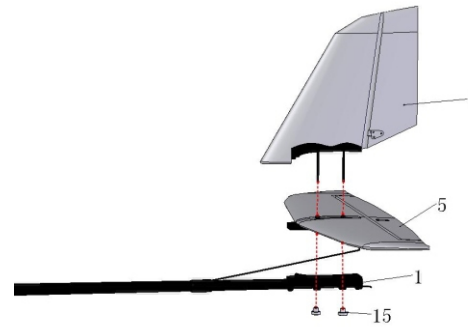
- Adjust trim so the aircraft flies straight when the control stick is neutral.

Aileron Trim

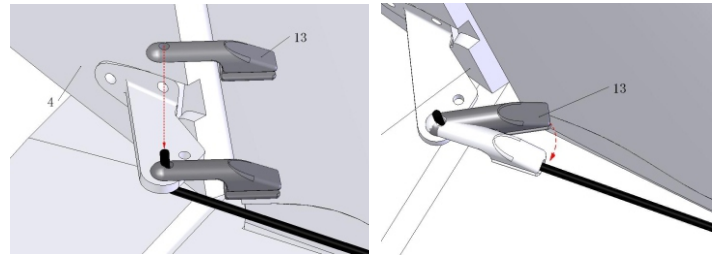


- When the aircraft roll left or right while the aileron stick is at the neutral position (centered), push the aileron trim button by one "beep" increments OPPOSITE the direction of drift.

Installing the Tail

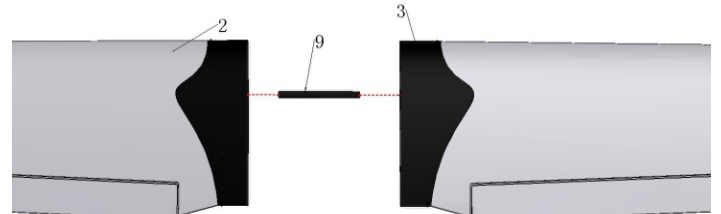


1. Install Horizontal Stabilizer/Elevator & Vertical Stabilizer/Rudder as picture shown.
2. Screw the tail nuts by hand and fix.

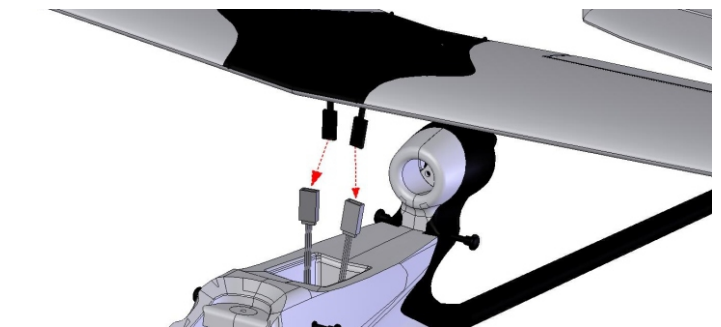


3. Connect the Z push rod to the hole in control horn, then install the linkage as picture shown to fix.

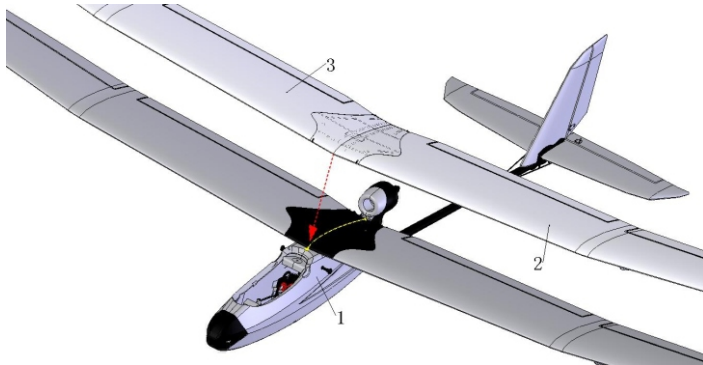
Installing the Wing



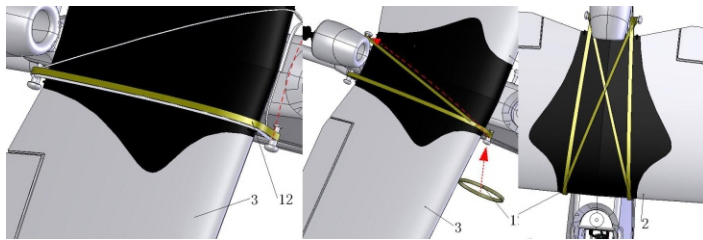
1. Insert the carbon tube (9) into the hole in the left wing(2), then slide the right wing(3) onto the carbon tube. Tabs on the left and right wings should align once the wings are properly joined.



2. Connect the aileron servo wires connectors from the wing to the Y-harness in the fuselage of the aircraft.

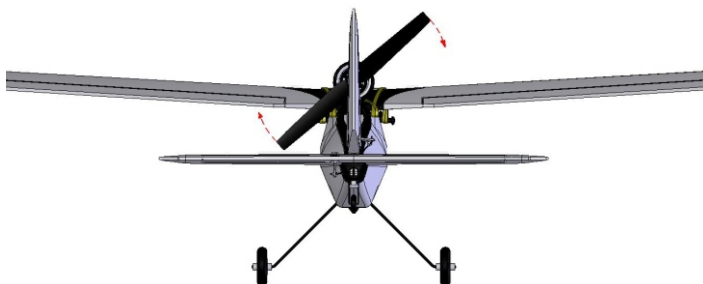
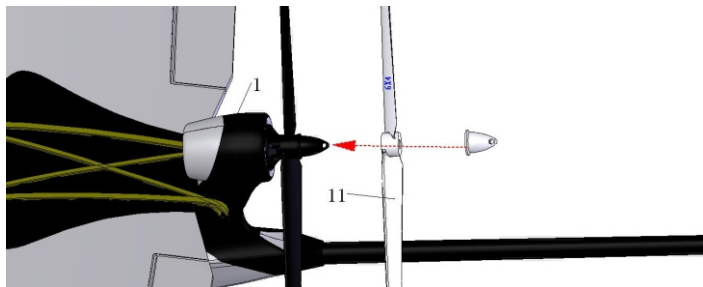


3. Center the wing on the fuselage by aligning the center dot on the wing with the top seam on the fuselage, and by centering the half circle on the wing's trailing edge over the fuselage center.



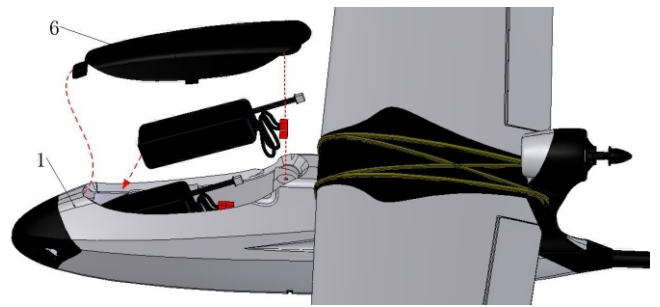
4. Secure the wing in place by attaching two rubber bands across the middle and one on each side as shown. Locate the rubber bands on the peg hooks as close as possible to the sides of the fuselage. CAUTION: Before each flight, make sure the front and trailing edges of the wing are exactly centered on the fuselage

Installing the propeller



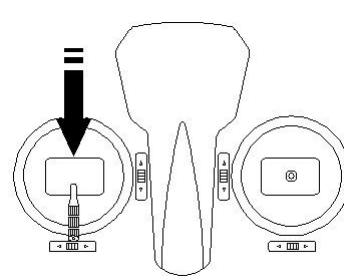
1. Power off the ESC switch on the side of the fuselage or disconnect the flight battery from the aircraft.
 2. Remove the spinner nut from the collet shaft.
 3. Install a balanced propeller on the collet shaft using the spinner nut with the numbers on the propeller facing the front of the plane.
 4. Put the shaft of a tool (for example, a screw driver) in the hole in the side of the spinner to tighten the spinner on the collet shaft.
- Remove the propeller in reverse order.

Installing the Flight Battery

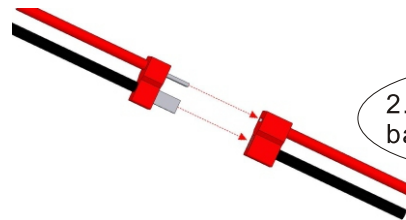


1. Open the canopy.
2. Install the flight battery (Do Not connect the wires at this time)
3. After connecting the battery, align the canopy pins with the hole in the fuselage and install the canopy so the magnets on the end of the canopy and fuselage meet.

Connect the Flight Battery



1. Lower the throttle stick and throttle trim to their lowest settings and power on your transmitter.



2. Connect the flight battery to the aircraft

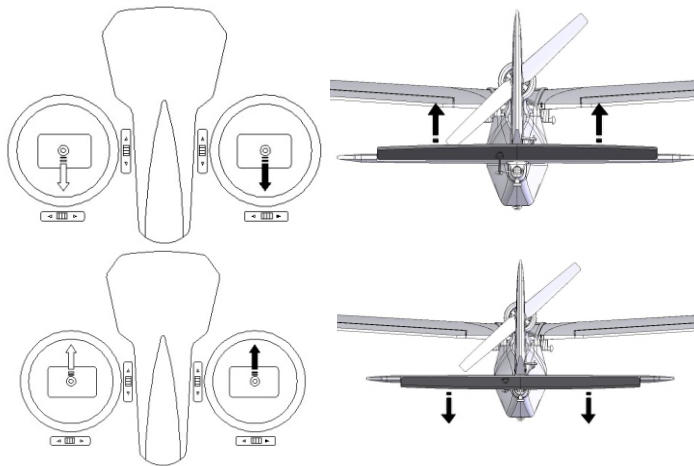
3. Immobile for 5 seconds series of tones.
- CAUTION: Always keep hands away from the propeller. When armed, the motor will turn the propeller in response to any throttle movement.
- CAUTION: Always disconnect the Li-Po flight battery from the aircraft receiver when not flying to avoid over discharging the battery. Batteries discharged to a voltage lower than the lowest approved voltage may become damaged, resulting in loss of performance and potential fire when batteries are charged.

Control Surface Test

1. Power on the transmitter.
2. Install a fully charged flight battery and allow the aircraft's ESC to initialize.

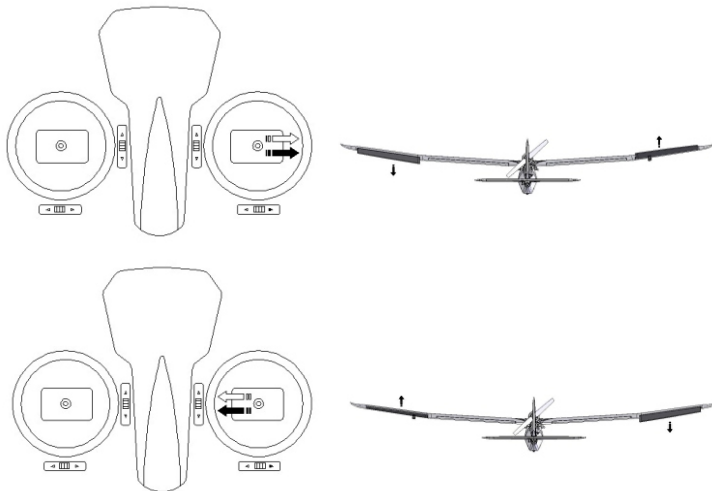


Test the Elevator



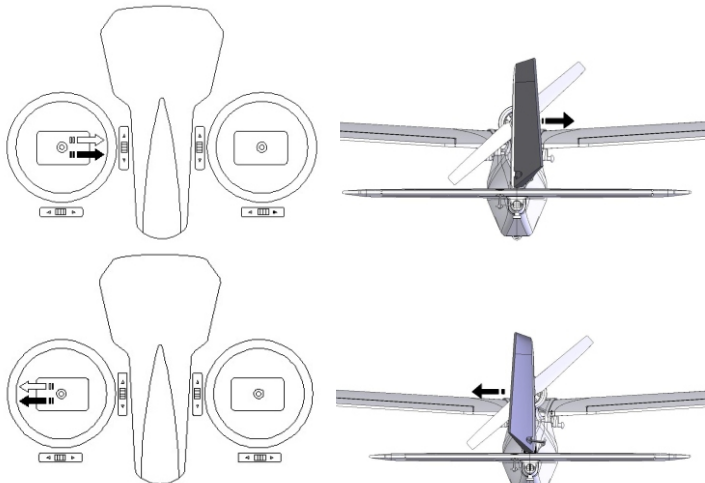
• Test your Elevator control by moving your elevator stick down and up. Make sure that the elevator responds according to the illustrations.

Test the Aileron



• Test your Aileron control by moving your aileron stick down and up. Make sure that the aileron responds according to the illustrations.

Test the Rudder



• Test your rudder control by moving your rudder stick left and right. Make sure that the rudder responds according to the illustrations.

Choose a Flying Field

In order to have the most success and to protect your property and aircraft, it is very important to select a place to fly that is very open. Consult local laws and ordinances before choosing a location to fly your aircraft.

The site should:

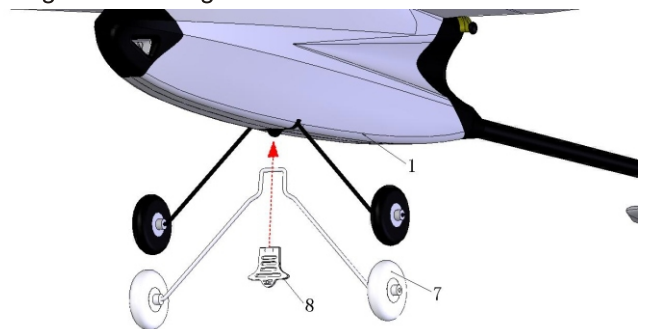
- Have a minimum of 200m of clear space in all directions.
- Stay clear of pedestrians.
- Stay free of trees, buildings, cars, power lines or anything that could entangle your aircraft or interfere with your line of sight.

Remember, your aircraft can reach speeds of up to 25–30 mph (40–48 km/h), so it can cover ground quickly.

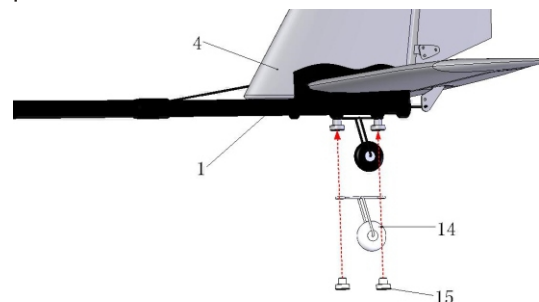
Plan on flying in an area that gives you more space than you think you need, especially with first flights.

Mounting the Landing Gear

If you want to take off from a run way. You need to mounting the Landing Gear.

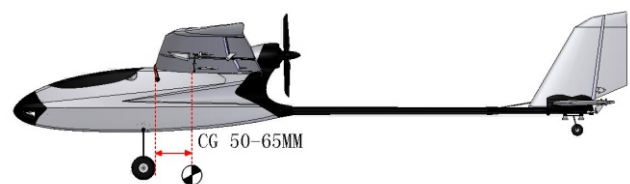


1. Insert the main landing gear into the slot on the bottom of the fuselage. Then insert landing gear fixing piece into the slot to fix.



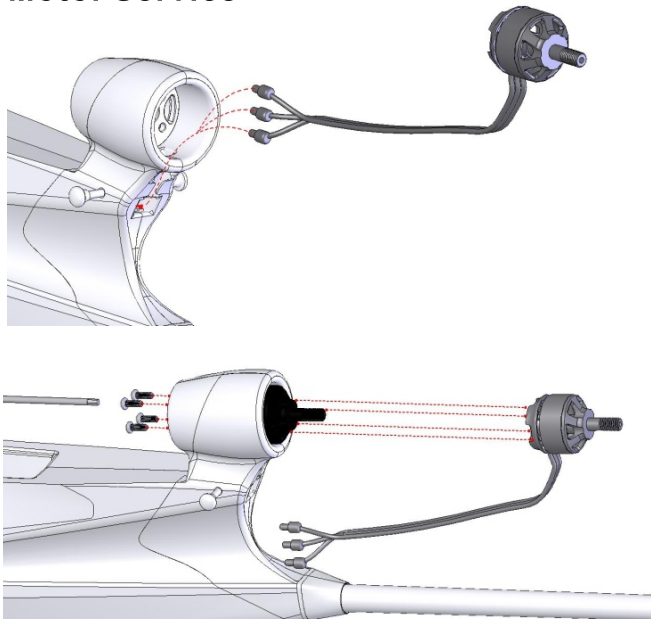
2. Screw the nut by hand to fix the tail wheel.

Centre of Gravity



The centre of gravity (CG) should be at a position of 50mm-65mm away from leading edge, please refer to above picture.

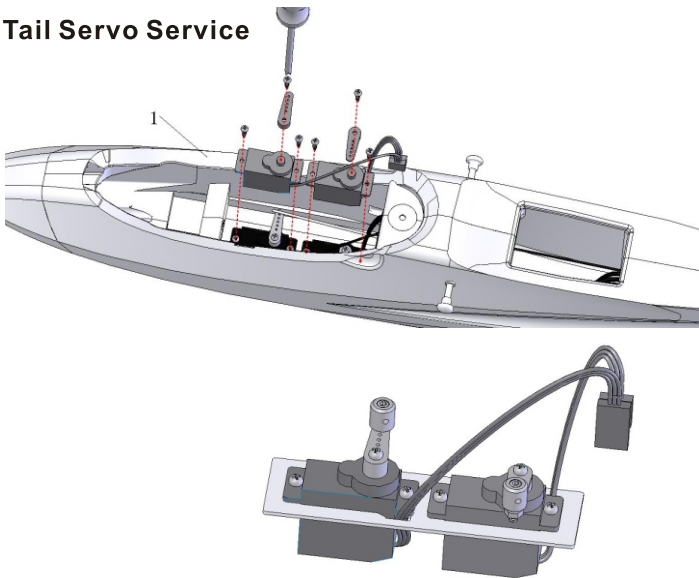
Motor Service



1. Thread motor wires through the holes under motor and into fuselage.
2. Install motor onto motor mount, and use screws to fix.

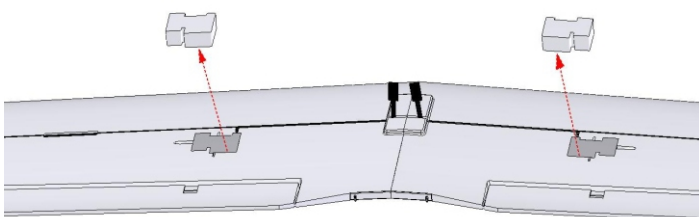
Servo Service

Tail Servo Service

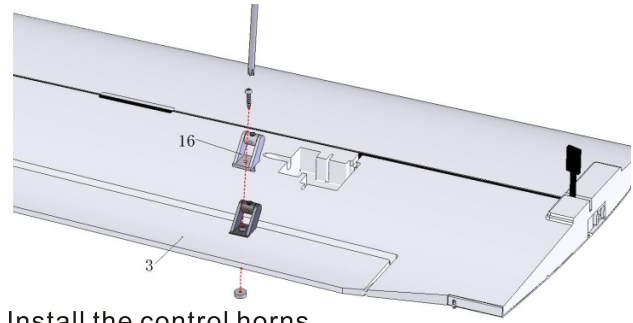


Use screws to fix servos onto the servo mount inside fuselage. Make sure the servo wires are correctly oriented as picture shown.

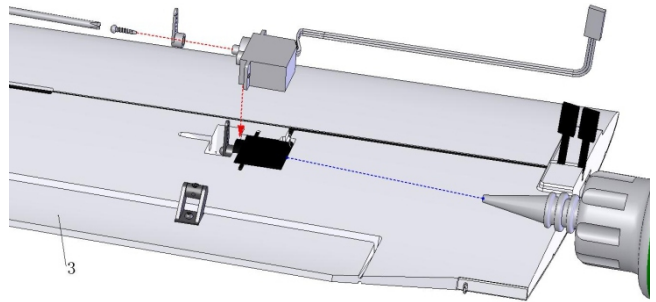
Wing Servo Service



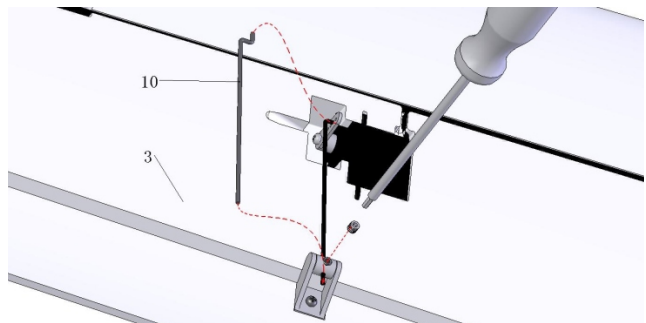
Take out the foam pieces from the flap servo slots.



Install the control horns.



Install the flap servo into pre-reserved servo houses.



Connect the Z end of pushrod to the servo arm, then connect another end to the swivel connector of flap control horn.

Safety

Safety is the First Commandment when flying any model aircraft. Third party insurance should be considered a basic essential. If you join a model club suitable cover will usually be available through the organisation. It is your personal responsibility to ensure that your insurance is adequate. Make it your job to keep your models and your radio control system in perfect order at all times. Check the correct charging procedure for the batteries you are using. Make use of all sensible safety systems and precautions which are advised for your system.

Always fly with a responsible attitude. You may think that flying low over other people's heads is proof of your piloting skill; others know better. The real expert does not need to prove himself in such childish ways. Let other pilots know that this is what you think too. Always fly in such a way that you do not endanger yourself or others. Bear in mind that even the best RC system in the world is subject to outside interference. No matter how many years of accident-free flying you have under your belt, you have no idea what will happen in the next minute.