



Hawker  
**SEA FURY**  
FB.11  
**User Manual**



*Wingspan : 1200mm*  
*Item No.: FLW201*

**EN** 1 ~ 11

**中** 12 ~ 22

**DE** 23~40



[www.sz-freewing.com](http://www.sz-freewing.com)



MADE IN CHINA

FlightlineRC is a new brand from Freewing Models, designed to bring you a new generation of propeller aircraft with high performance at an affordable price. We will continue to deliver innovative ideas and exquisite designs, and provide propeller aircraft with the same high level of quality our customers expect and deserve.

### SUMMARY:

The Hawker Sea Fury was the last piston engine driven carrier based fighter in British history. Although the Sea Fury did not participate in the Second World War, the aircraft earned distinction operating from British and Australian carriers during the Korean War where its performance and resilience earned the Sea Fury its place in aviation history. The Sea Fury also served across the world in the service of Australia, Canada, the Netherlands, Burma, West Germany, and many other nations. Following its retirement from military service, the Sea Fury continues to amaze audiences in racing competitions and air shows worldwide.

FlightLineRC presents its Hawker Sea Fury FB.11 in the livery of a VX730/109/K of the 805 NAS, Korea 1951. Constructed using EPO foam, this model uses carbon tubes and plastic parts to reinforce the removable wings and control surfaces. Screws allow the wing and elevator to be easily removed. The four panel split flaps are reinforced with lite plywood, and the fuel tanks are magnetic. To maximize performance efficiency, FlightLineRC's Sea Fury features a four bladed propeller and 580kv motor to achieve satisfying scale performance at 135/83mph speeds. An optional two bladed power system (sold separately) can be purchased to reach 150kph/93mph level speeds.

***(The propeller/power upgrade system can be purchased in the spare parts section of this airplane. please consult your distributor.)***

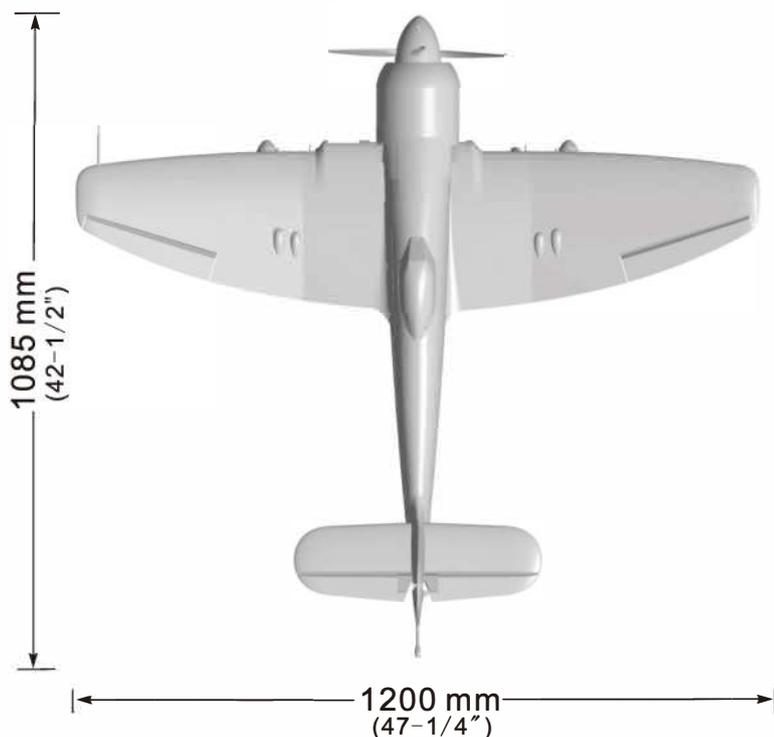
**⚠ NOTE:** This is not a toy. Not for children under 14 years. Young people under the age of 14 should only be permitted to operate this model under the instruction and supervision of an adult. Please keep these instructions for further reference after completing model assembly.

### Note:

- 1. This is not a toy! Operators should have some basic experience. Beginners should operate only under the guidance of a professional instructor**
- 2. Before beginning assembly, please read through the instructions and carefully follow them through the build.**
- 3. Freewing and it's vendors will not be held responsible for any losses due to improper assembly and operation**
- 4. Model airplane operators must be at least 14 years of age.**
- 5. This airplane is made of EPO foam material, covered with surface spray paint. Don't use chemicals to clean as it may cause damage.**
- 6. You should avoid flying in areas such as public places, areas with high voltage power lines, nearby highways or airports or an other areas where laws and regulations clearly prohibit flight.**
- 7. Do not fly in bad weather conditions, including thunderstorms, snow, etc...**
- 8. Lipo batteries should be properly stored in a fire safe container and be kept at a minimum of 2M distance away from flammable or explosive materials**
- 9. Damaged or scrap batteries must be properly discharged before disposal or recycling to avoid spontaneous combustion and fire.**
- 10. At the Flying Field, properly dispose of any waste you have created, don't leave or burn your waste.. Ensure that your throttle is in the low position and that your radio is turned on before connecting the Lipo battery.**
- 11. Do not try to catch the airplane when flying low or landing. Wait for the airplane and it's propeller to come to a complete stop.**

# Index

1. Product Basic Information	2
2. Package List	2
3. Assembly:	
4. Main Wing	3
5. Tail gear, rudder and elevator	4
6. Elevator, Tail Wheel Pushrods	5
7. Tail Hook, Main Landing Gear	6
8. Servo Introduction, Battery Installation	7
9. Power System Installation	8
10. Motor Parameters, CG	9
11. Control Direction Test	10
13. Dual Rates, Optional Plastic Hinges	11



Wing loading: 78g/dm<sup>2</sup>  
 Motor: 3748-580KV brushless motor  
 Propeller: 4-blade 12x7  
 ESC: 60A brushless ESC  
 Servo: 9g MGx2, 9g plasticx4  
 Weight: 1550g (w/o battery)

Aileron: Yes  
 Elevator: Yes  
 Rudder: Yes  
 Flap: Yes  
 Landing gear: retract landing gear  
 Cabin door  
 Material: EPO

**High speed DIY spare-part**

*(The following is DIY spare-part, please contact distributor to purchase separately.)*

- 2-blade propeller spinner
- 2-blade propeller fixed plate
- 3648-880KV brushless motor
- 2-blade 12x8 propeller

**⚠ Note:** The parameters in here are derived from test result using our accessories. If use other accessories, the test result will be different. Any problem since of using other accessories, we are not able to provide technical support.

Package list



Different equipment include different spareparts. Please refer to the following contents to check your sparepart list.

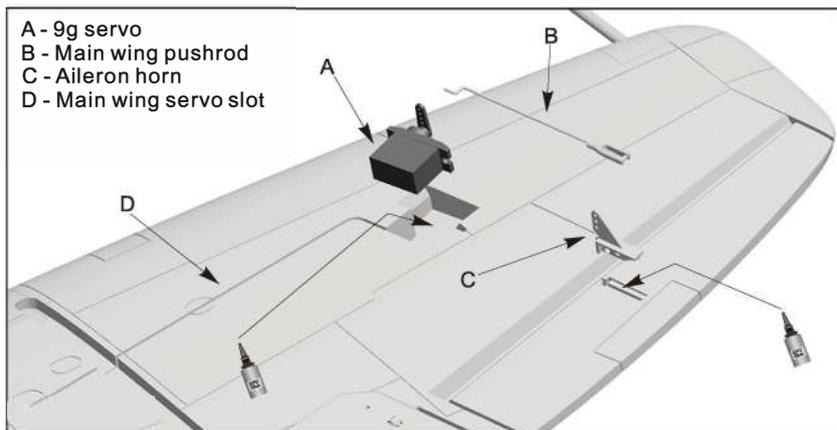
No.	Name	PNP	KIT Plus	Airframe
1	Fuselage	Pre-installed all electronic parts	Pre-installed servo	No electronic equipment
2	Main wing	Pre-installed all electronic parts	Pre-installed servo	No electronic equipment
3	Tail wing set	Pre-installed all electronic parts	Pre-installed servo	No electronic equipment
4	Foam parts	✓	✓	✓
5	Fuel tank	✓	✓	✓

No.	Name	PNP	KIT Plus	Airframe
6	Propeller	✓	✓	✓
7	Spinner & fixed part	✓	✓	✓
8	Installed part & screw	✓	✓	✓
9	Fiberglass tube & glue	✓	✓	✓
10	Manual			

## Main wing

### Install main wing servos

1. Use a servo tester or radio to center the servo.
2. Use glue to install the servo and aileron horn on the main wing.
3. Feed the servo cable through the slot.
4. Insert the pushrod into the servo arm, adjust its length, then insert the clevis into the control horn and lock it into place.
5. Repeat the above four steps for all aileron and flap servos, then apply the decal over the slots.



- A - 9g servo
- B - Main wing pushrod
- C - Aileron horn
- D - Main wing servo slot

### Aileron pushrod size



### Flap pushrod size



### Aileron pushrod mounting hole



### Flap pushrod mounting hole

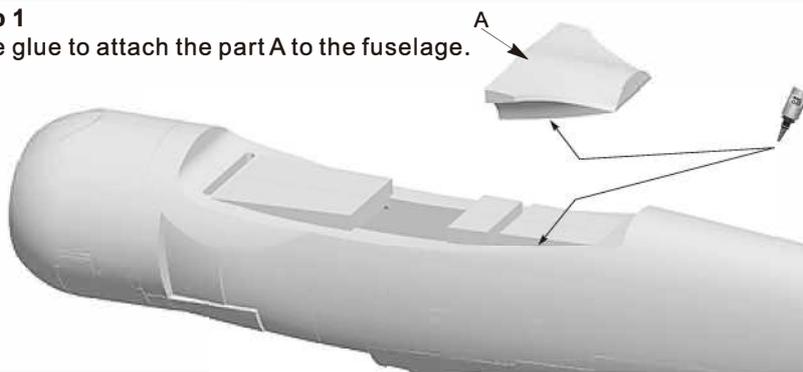


**NOTE:** Secure all clevises with the supplied rubber retaining ring.

## Main wing assembly

### Step 1

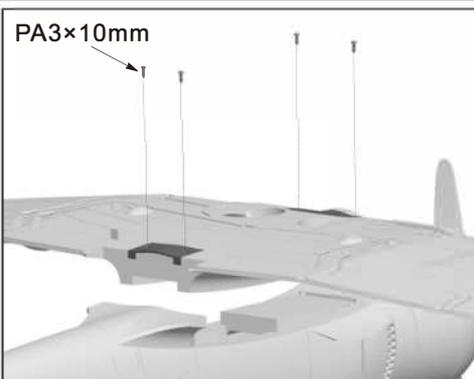
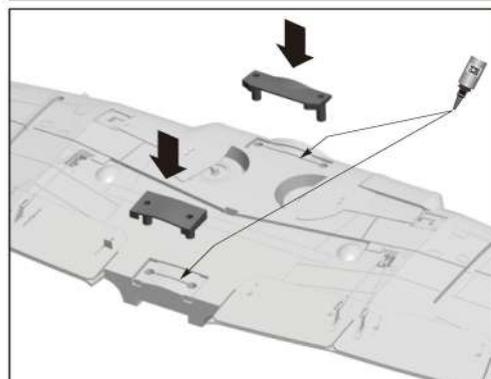
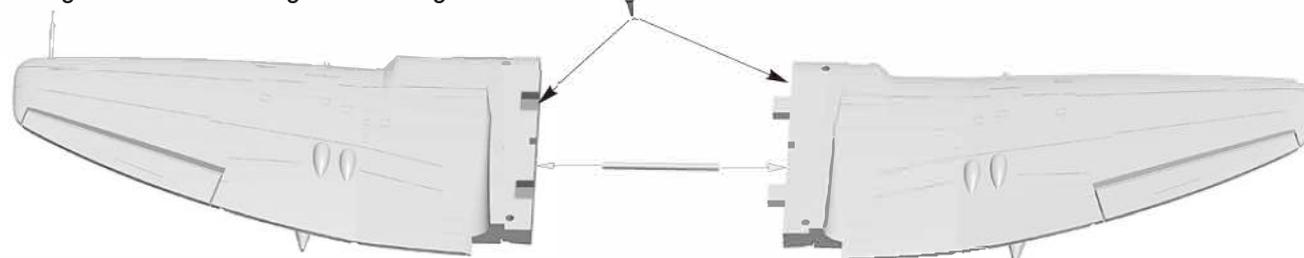
Use glue to attach the part A to the fuselage.



### Step 2

Use glue to attach left/right main wing.

Fiberglass tube size : Ø8mm×240mm



### Step 3

Use glue to install the plastic wing attachment points B and C to the main wing.

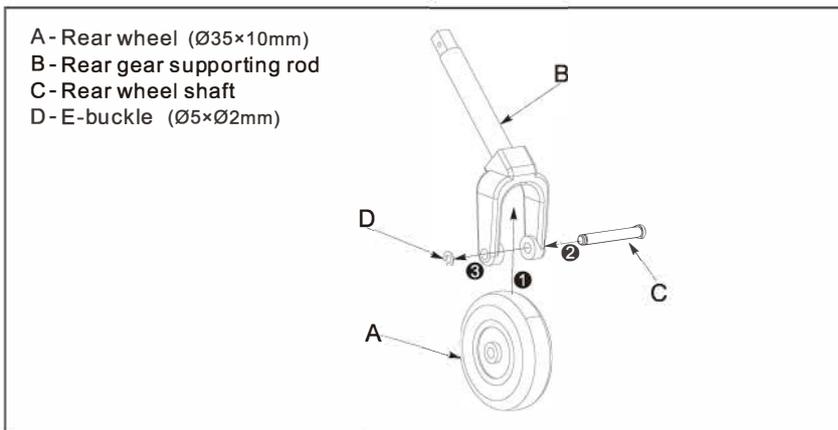
### Step 4

Use 4pcs screws to affix the main wing.

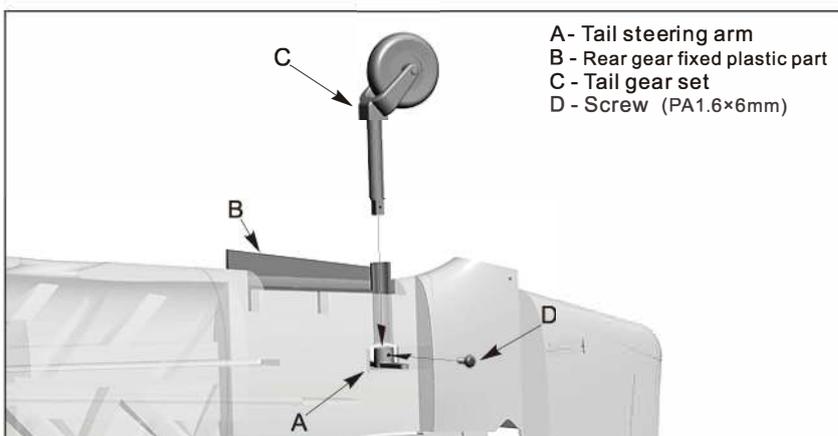
**Note:** There is a EPO glue included package. For best results, spread the glue evenly, then wait for 90 seconds before installation.

## Installation and assembly of the tail gear.

1. Assemble the tail wheel as shown in the diagram.



2. Insert the tail gear set C to the fixed plastic part B, and then insert it into the tail steering arm A.  
3. Use screw D to fix the tail steering arm.

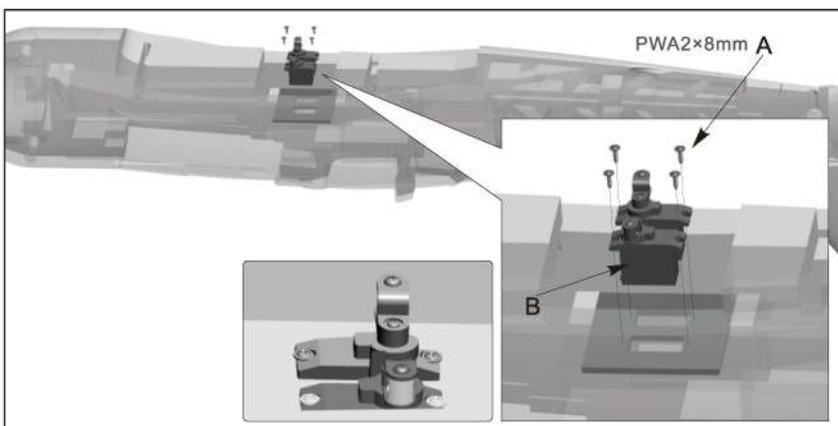


## Elevator, rudder

### Installing Elevator/rudder Servos

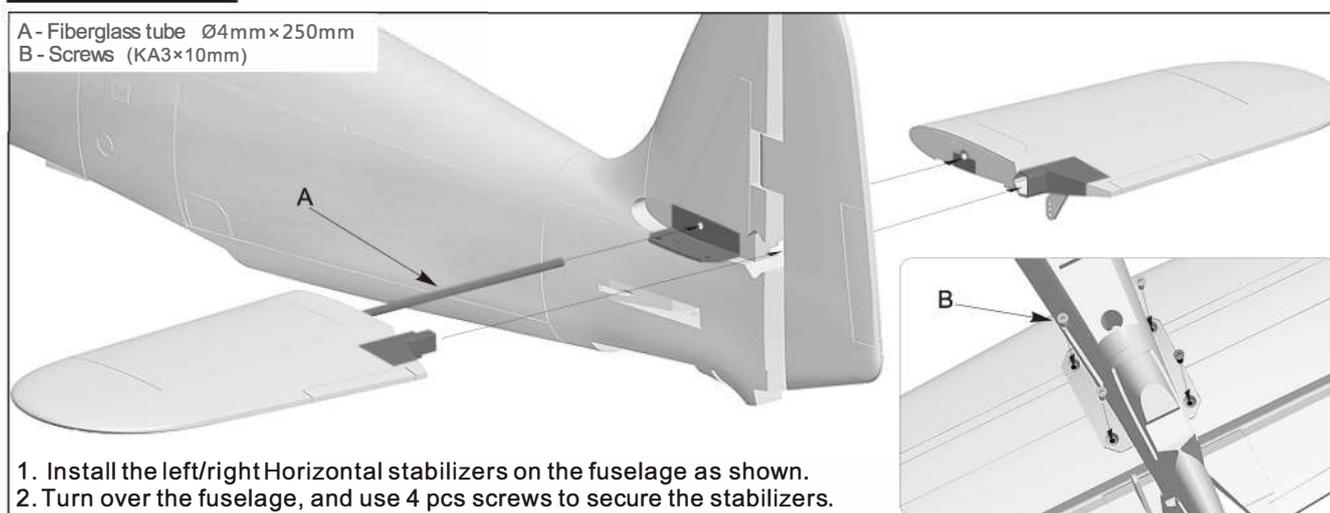
1. Use a servo tester or radio to center the servo.  
2. Use screw A to attach the 9g servo on the wood piece.  
3. Slide the servo cable under the wooden piece, and into the battery compartment.

**Note:** If you choose not to use the factory servo, the chosen servo may be larger. If that is the case, you need to remove the fixed wooden piece and glue the servo in the servo position in the fuselage.



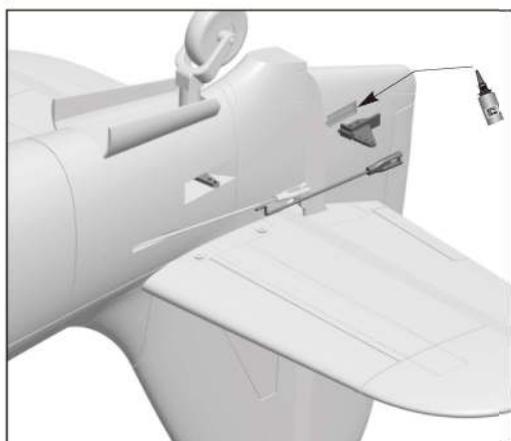
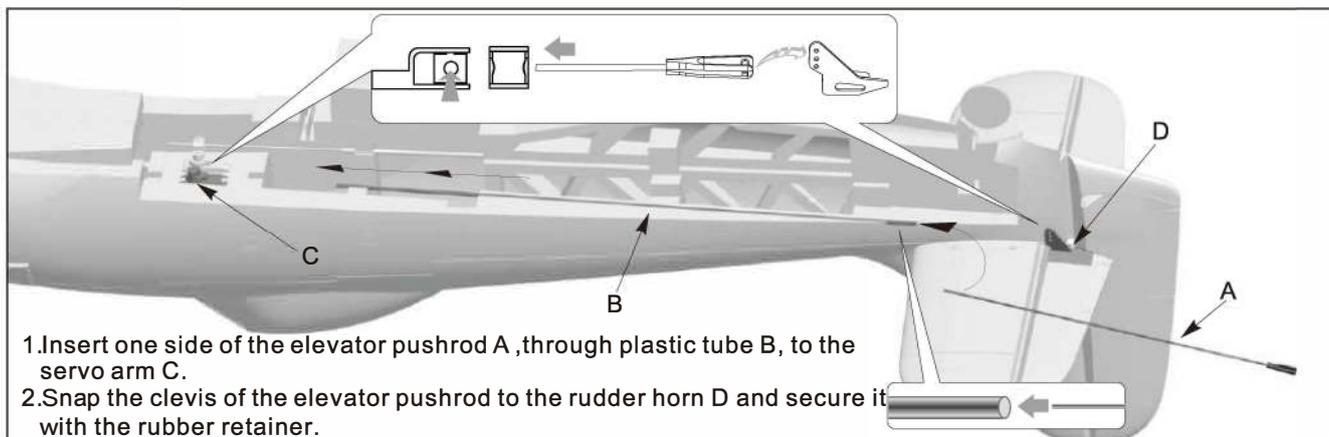
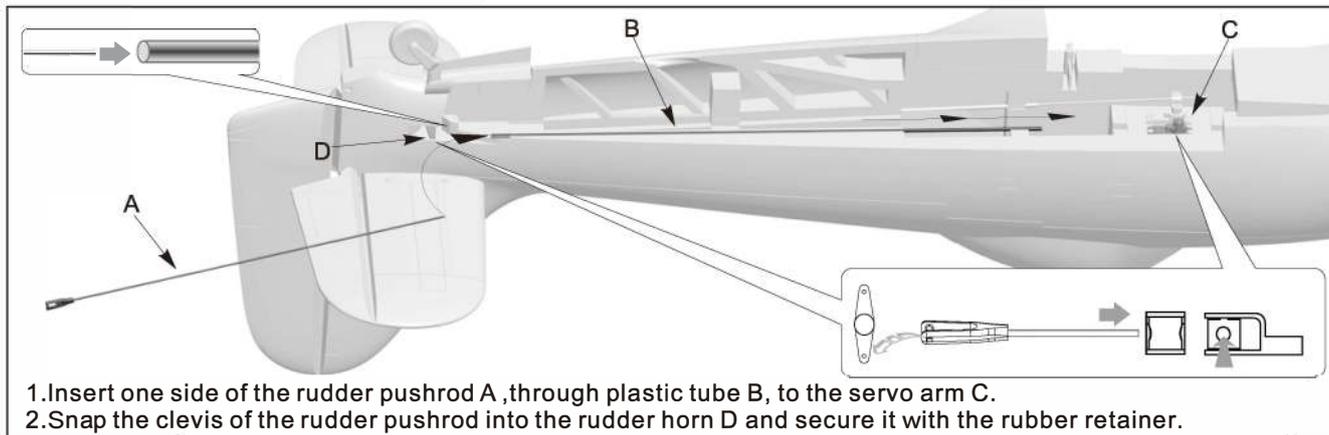
### Elevator Assembly

A - Fiberglass tube Ø4mm×250mm  
B - Screws (KA3×10mm)



1. Install the left/right Horizontal stabilizers on the fuselage as shown.  
2. Turn over the fuselage, and use 4 pcs screws to secure the stabilizers.

## Installing elevator/rudder pushrods



**Note:** When installing the rudder pushrod, make sure the tail gear is centered, then install the rudder pushrod and adjust the plastic clevis to center the rudder.

1. Glue the rudder horn to the rudder. (see the diagram on the left).
2. Use rudder pushrod to connect the tail gear steering arm and rudder horn.

### Steering pushrod size



Pushrod diameter : Ø 1.2mm

### Steering pushrod mounting hole



### Rudder pushrod size

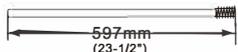


Pushrod diameter : Ø 1.2mm

### Rudder pushrod mounting hole



### Elevator pushrod size



Pushrod diameter : Ø 1.2mm

### Elevator pushrod mounting hole



**Note:** be sure to use the rubber retaining rings over each clevis to ensure they stay locked.

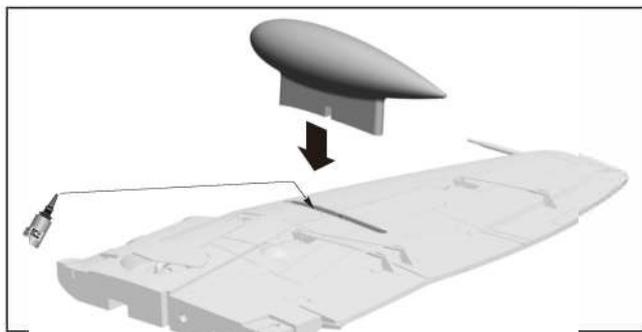
## Installing the tail hook

1. Insert the tail hook A on the tail hook fixed part B, and keep the two plastic holes alignment;
2. Use screw C to secure the tail hook A.



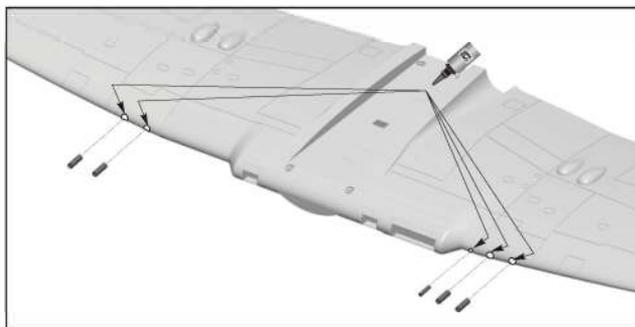
## Installing the drop tanks

Use glue to attach the drop tanks on the left/right main wing. Ensure you have the correct tank for each wing.



## Install main wing guns

Apply glue to the gun holes, then insert the carbon tubes to the gun hole as shown.

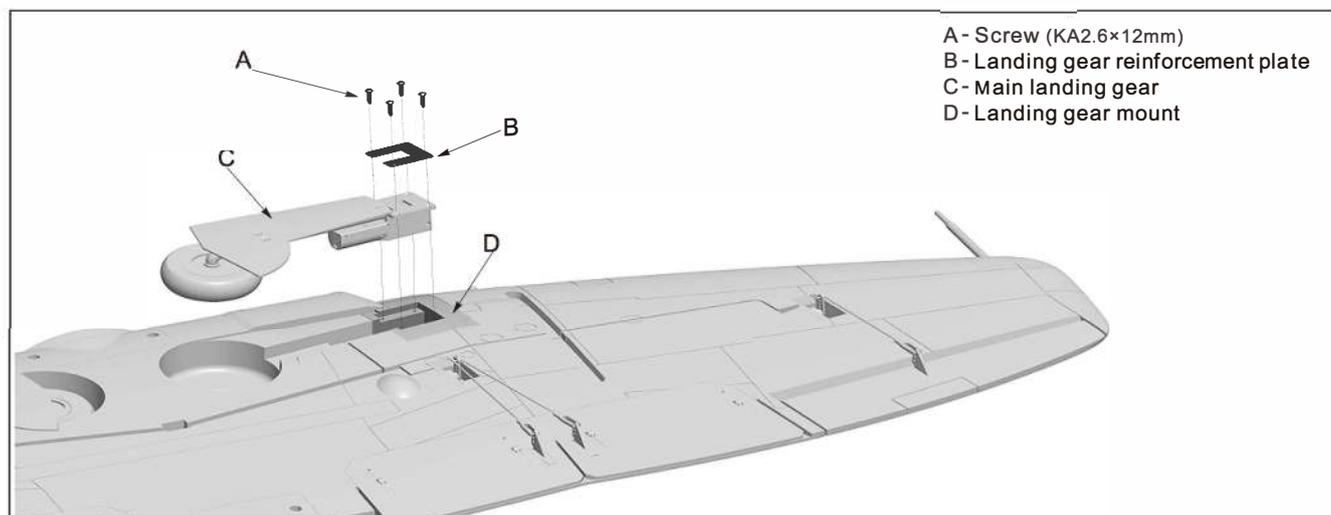
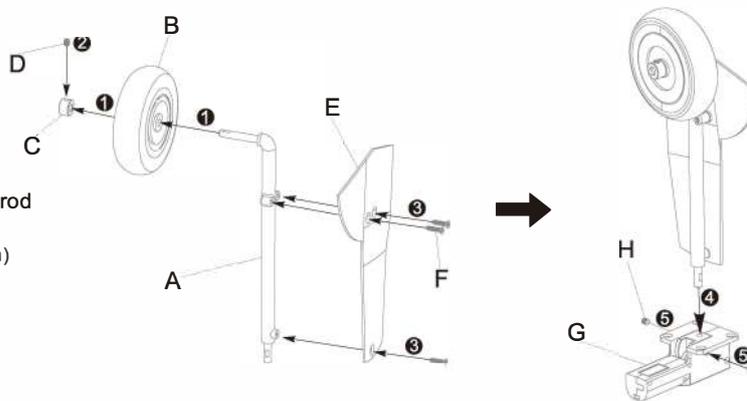


## Main Landing Gear Assembly

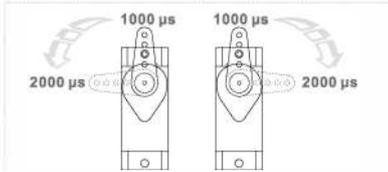
Please assemble/disassemble the main landing gear as shown in the diagram below.

### Accessories

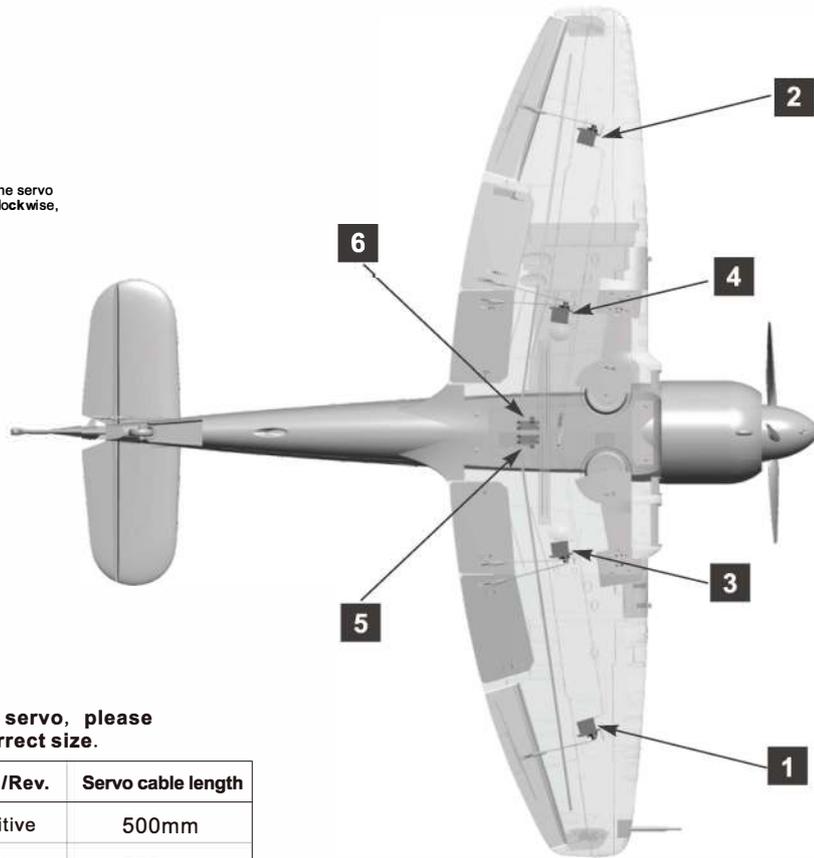
- A - Main gear main supporting rod
- B - Main wheel (Ø65×16mm)
- C - Wheel locks (Ø5.5×Ø4.2mm)
- D - Jimi screw (M3×3mm)
- E - Main gear cabin door
- F - Screw (PB2.3×4mm)
- G - Retract servo.
- H - Jimi screw (M3×3mm)



## Servo introduction



A servo or reversed servo is defined as follows:  
 When the servo input signal changes from 1000μs to 2000μs, The servo arm rotates clockwise, its a positive servo. If it rotates counter clockwise, its a reversed servo.



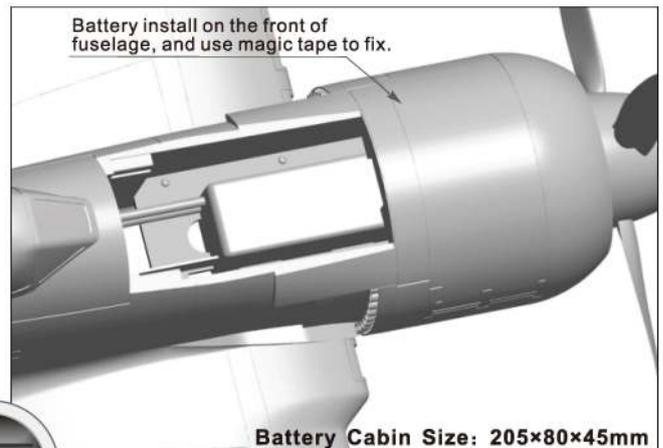
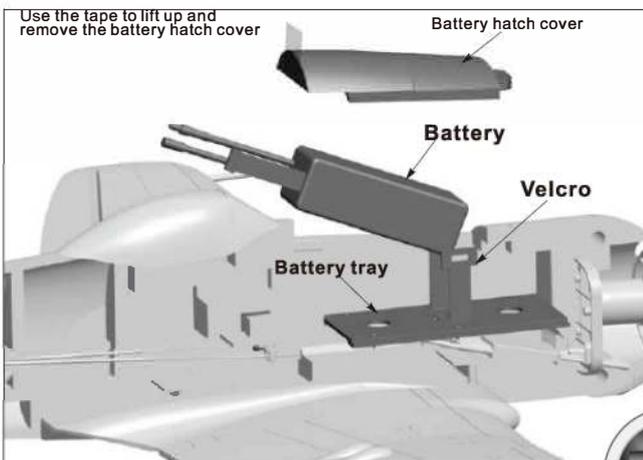
If you need to purchase other brand of servo, please refer to the following list to choose correct size.

Servo installing position	No.	Pos./Rev.	Servo cable length
Aileron servo (Left 9g plastic)	1	Positive	500mm
Aileron servo (Right 9g plastic)	2	Positive	500mm
Flap servo (Left 9g plastic)	3	<b>Reverse</b>	250mm
Flap servo (Right 9g plastic)	4	Positive	250mm
Rudder servo (9g MG)	5	Positive	200mm
Elevator servo (9g MG)	6	Positive	200mm

### Servo connection

1. Use a Y- connector to connect the wires of these two servos, and insert the end into the aileron channel in receiver.
2. Use a Y- connector to connect the wires of these two servos, and insert the end into the flap channel in receiver.
3. Use a Y- connector to connect the left/right main landing gear, and insert the end into the landing gear channel in receiver.

## Battery Installation



Before connecting the battery to the ESC, please power up the transmitter and make sure the throttle stick is in the lowest position. Beware of the propeller. Leave it off if you don't need it on! If you need to have the propeller on, please make sure that nothing is within the propeller diameter. In order to avoid accidents and injury, anchor the airplane down and avoid the front of the airplane!

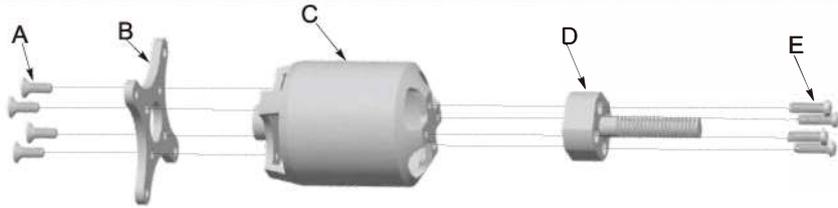


The battery capacity and discharge rate we advise is in the following:

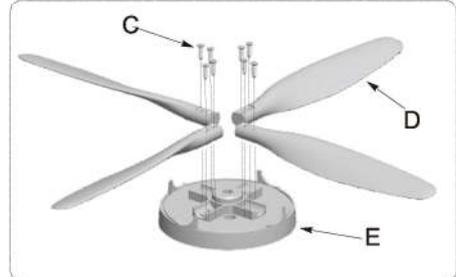
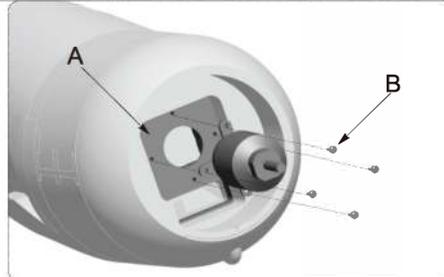
4S 14.8V 3300mAh ~ 4S 14.8V 4200mAh

**Discharge rate of C ≥ 30C**

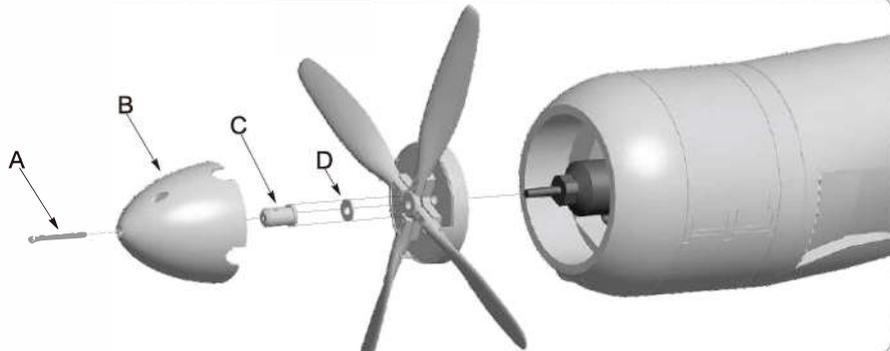
- A-Screw (KM3×5mm 4pcs)
- B-Motor X-fixed base
- C-3748-580KV out-runner motor
- D-Propeller folder
- E-Screw (HM2.5×10mm 4pcs)



- A-Motor fixed mount
- B-Screw (PA3×12mm 4pcs)
- C-Screw (PA2.3×16mm 8pcs)
- D-Scale propeller (12x7, 4-blade)
- E-Scale propeller fixed plate

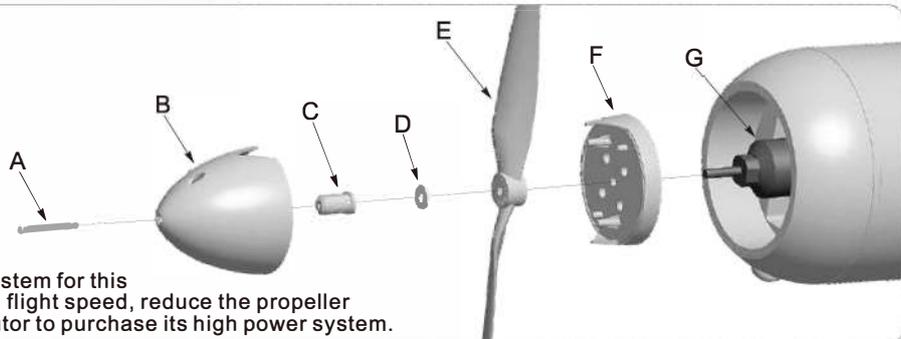


- A-Screw (PM3×10mm 1pcs)
- B-Spinner (scale 4-blade spinner)
- C-Propeller fixing bolt
- D-Washer (Φ14×1.5×Φ6.2mm)



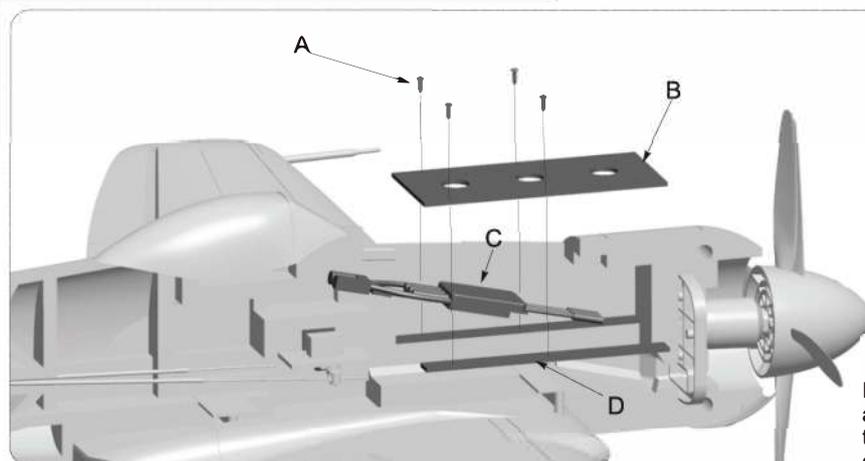
## Installing the optional 2-blade propeller high power system

- A-Screw (PM3×10mm 1pcs)
- B-2-blade spinner
- C-Propeller fixing bolt
- D-Washer (Φ14×1.5×Φ6.2mm)
- E-2-blade propeller (12×8)
- F-2-blade propeller fixed plate
- G-3648-880KV brushless motor



We prepared a 2-blade high power system for this airplane, it can improve its power and flight speed, reduce the propeller use cost! You can contact our distributor to purchase its high power system.

## Installing the ESC

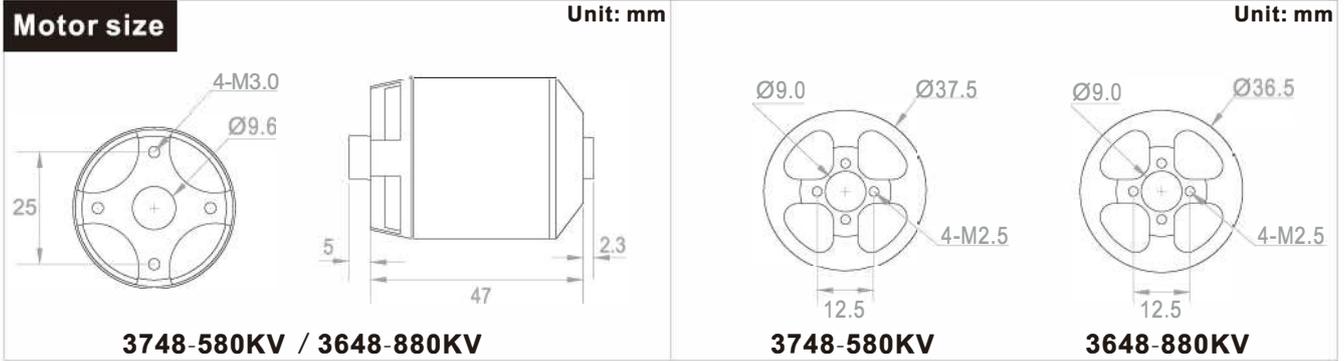


- A-Screw (PWA3×8mm 4pcs)
- B-Battery tray
- C-ESC
- D-Tray holder

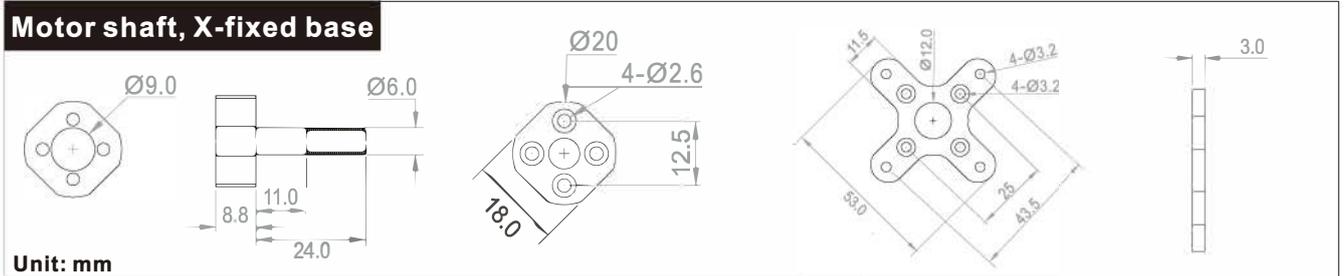
Put the ESC under the battery tray, there are specially designed ventilation ducts, that will cool the electric equipment effectively.

# Parameter of Motor

EN



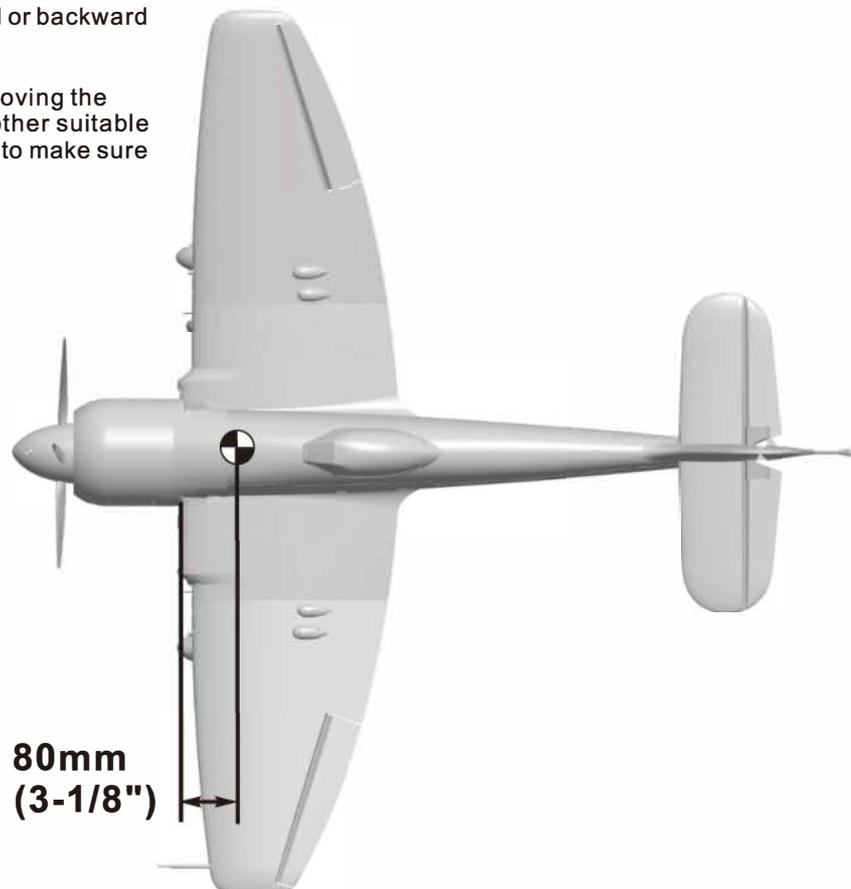
Item No.	KV Value	Volute (V)	Current (A)	Pull (g)	Motor Resistance	Weight (g)	No Load Current	Propeller	ESC
MO137481	580RPM/V	14.8	41	2500	0.02 Ω	170	2.3A/10V	4-Blade12×7	≥60A
MO136484	880RPM/V	14.8	53	2600	0.02 Ω	165	2.3A/10V	2-Blade12×8	≥60A



## Center of Gravity

Correct center of gravity is directly related to the success of the flight, please refer to the following CG diagram to adjust your plane's center of gravity.

- You can move the battery forward or backward to adjust the center of gravity.
- If you can not adjust the CG by moving the battery, you can also use some other suitable material such as stick on weights to make sure that CG is in the correct position.



After the build is complete but with the propeller removed, power up the radio and connect a fully charged battery to the ESC. Use the radio to ensure proper control direction

## Aileron

Stick Left



Stick Right



## Elevator

Up Elevator



Down Elevator



## Rudder

Stick Left



Stick Right

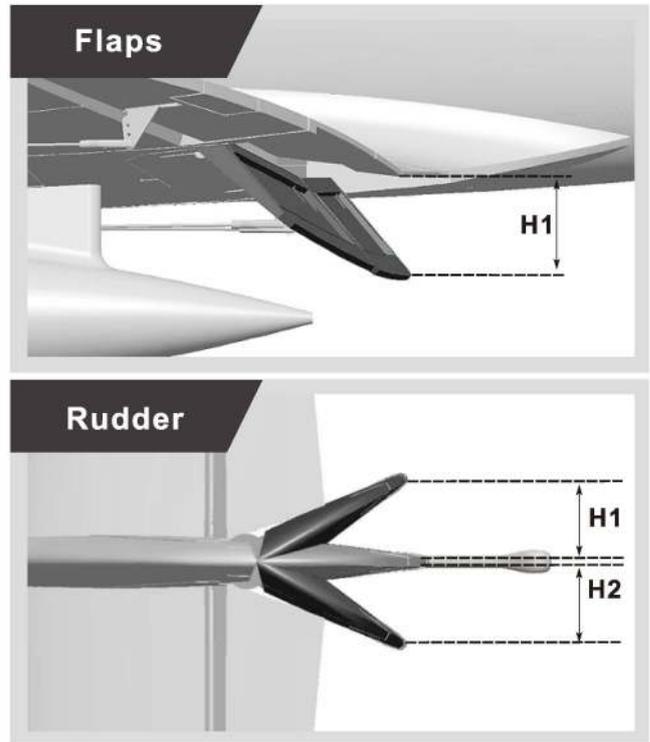
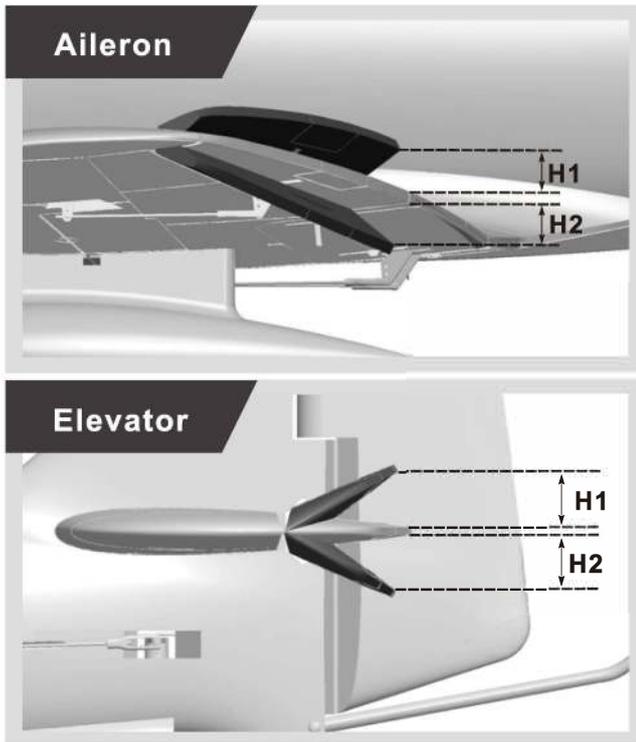


## Optional Flaps

Flaps down



According to our test results, the following rates proved to be a good starting point. Low rates are good for initial flights or less experienced pilots. Adjust rates to suit you own style.



	Aileron	Elevator	Rudder	Flaps
<b>Low Rate</b>	H1/H2 13mm/13mm D/R Rate : 60%	H1/H2 13mm/13mm D/R Rate : 75%	H1/H2 18mm/18mm D/R Rate : 60%	H1 20mm
<b>High Rate</b>	H1/H2 20mm/20mm D/R Rate : 100%	H1/H2 19mm/19mm D/R Rate : 100%	H1/H2 28mm/28mm D/R Rate : 100%	H1 30mm

## Installing the optional Plastic Hinges

The control surfaces of this airplane use a no-hinge connection design. Although proven reliable, these type of hinges can be damaged due to errors, causing the control surface to become loose or separate. Included with this kit is a set of plastic hinges if you wish to use them as an alternate or for repair.

