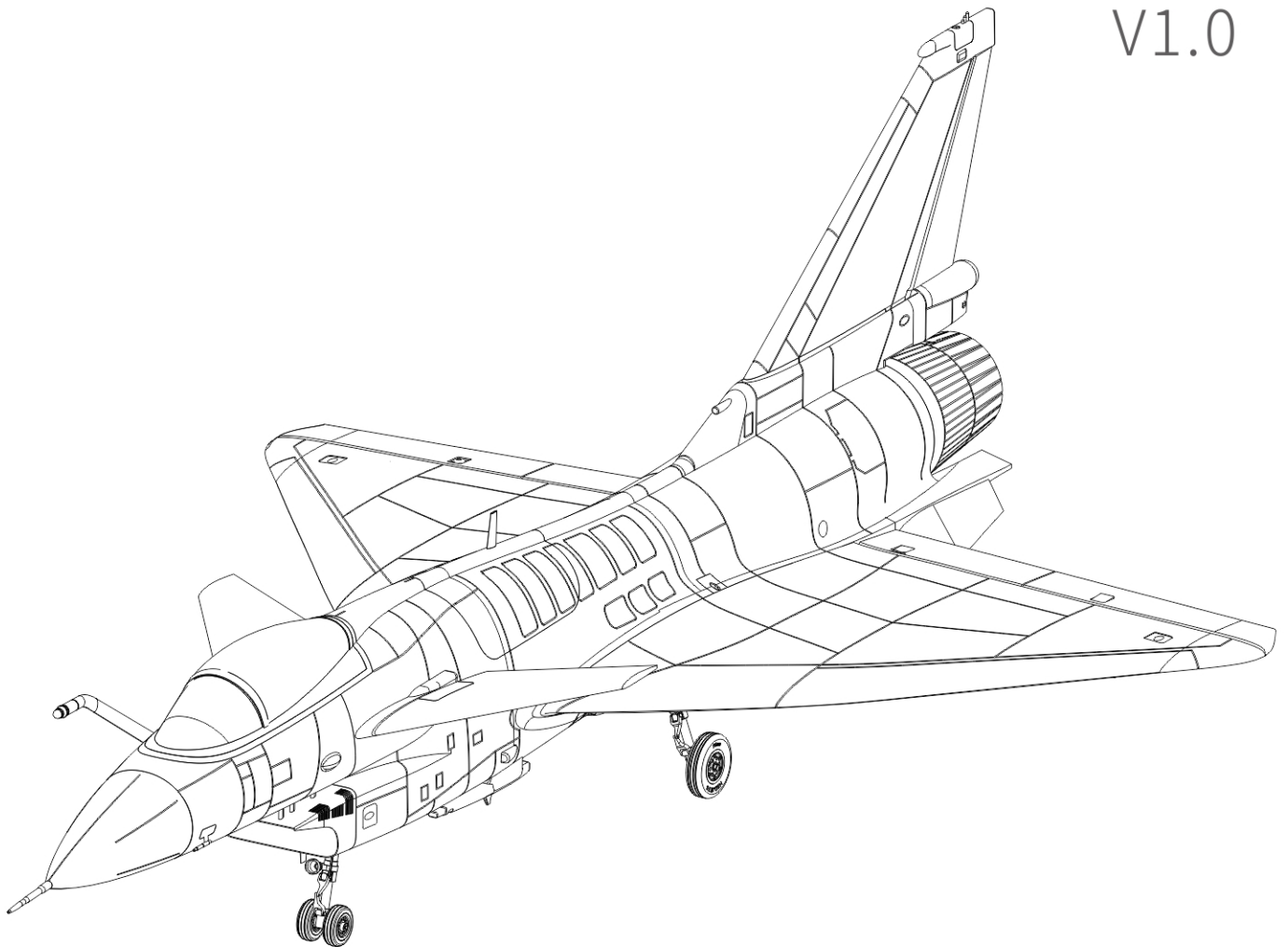


# **HSDJETS<sup>®</sup>**

## TURBOJET HJ-10 ASSEMBLY AND PRE-FLIGHT INSTRUCTIONS

V1.0



Product S/N:

Want to learn more about the product video,  
pictures, and other matters of attention Please  
log in: [www.hsdr.com](http://www.hsdr.com)

## INDEX

Introduction	-03
Important hints	-03
Safety Instructions	-04
Description of each component	-08
Install instructions:1. Open the box(PNP version)	-09
Install instructions:2.Install the Nose and the Fuselage	-10
Install instructions:3.Install the air inlet	-10
Install instructions:4.Install the left and right canards	-10
Install instructions:5.Install the tail fin	-10
Install instructions:6.Install the vertical tail	-11
Install instructions:7.Install main wing	-11
Install instructions:8.Install fuel pipe,antenna and other accessories	-11
First test and adjustment after assembly:1-5.Startup process	-12
First test and adjustment after assembly:6. Aileron test	-12
First test and adjustment after assembly:7. Aileron adjustment	-13
First test and adjustment after assembly:8. Elevation test	-13
First test and adjustment after assembly:9. Elevation adjustment	-14
First test and adjustment after assembly:10. Rudder test	-14
First test and adjustment after assembly:11. Rudder adjustment	-15
First test and adjustment after assembly:12. Canard wing test	-16
First test and adjustment after assembly:13. Canard wing adjustment	-16
First test and adjustment after assembly:14. Vector test	-17
First test and adjustment after assembly:15. Vector adjustment	-17
First test and adjustment after assembly:16. Landing gear test and adjustment	-18
First test and adjustment after assembly:17. Ground test and adjustment	-19
First test and adjustment after assembly:18. Pre-takeoff center of gravity test	-20
First test and adjustment after assembly:19. Center of gravity adjustment	-20
landing gear decomposition graph	-21
Specification and configuration	-23

## Introduction

Thank you very much for purchasing. What you have now is the latest product of HSDJETS. This model aircraft has the following characteristics:

01. Simulate the shape, reproduce the classic style of the real machine with rich details.
02. The main material of the engine body is 20 times of high density EPO material specially used for imported turbojet, which has good crashworthiness.
03. HJ10 nose cone, air inlet and tail nozzle adopt composite material process.
04. The nose cone and tail nozzle are designed with quick disassembly, which is more convenient for maintenance and replacement.
05. HJ10 is equipped with the newly upgraded 2022 version MFC-2085 pro control system, and the following are added on the original basis:
  1. The steering gear drive chip improves the steering gear resolution and makes the steering gear control more smooth;
  2. The front wheel deviation correction function is added, which makes the straight-line navigation operation more convenient;
  3. The font chip is added to support Chinese, English and other languages.
  4. The function of stabilized gyroscope is added.
06. The integral main wing is adopted, and carbon fiber rods and glass fiber wing ribs are embedded inside the main wing, so the strength is significantly improved and the torque resistance is stronger.
07. The whole machine adopts 12 7.4V high-voltage high-speed metal gear digital steering engines, which have greater torque and are durable.
08. The HJ10 is equipped with a LED navigation light system that simulates

dazzle. The main wing adopts the international red light on the left and green light on the right, and has a variety of flash modes such as fast flash, slow flash, and constant light.

09. The connection plugs of the wing and the fuselage are all high-precision integrated plugs, which are fast to assemble and reliable to connect.
10. The wing and vertical tail adopt all metal mechanism lock catch, which makes the assembly more firm, and the installation and removal more convenient and fast.
11. The rear electric retraction and retraction and landing gear connection mode adopts 11mm diameter landing gear legs to be directly locked in the electric slot, so that the landing gear legs can withstand the impact of stronger force without bending easily.
12. The wheels are equipped with bearings and adopt electromagnetic braking system, so that they can rotate more smoothly and brake more sensitively.
13. HJ10 is designed with air brake. It adopts large angle of control surface to form butterfly brake effect, which increases aircraft sliding resistance and decelerates. The braking effect is better.
14. Support the vector nozzle (optional). The HJ10 with the vector nozzle version is more playable and can complete a variety of difficult actions.

We believe this product will bring you an excellent flight experience.

Please read this manual carefully before flying, and correctly complete the assembly and commissioning of the model aircraft.

## Note



**This is not a toy, it has the potentially dangerous, not for children under 14 years old. Young people under the age of 14 should only be permitted to operate the model under the instruction and supervision of an adult. Please keep these instructions for further reference after completing model assembly.**

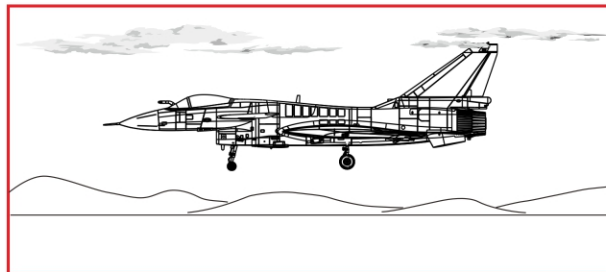
## Important hints

1. Operator should have a certain experience, beginners should operate under the guidance of professional players;
2. Before install, please read through the instructions carefully and operate strictly under instructions;
3. Cause of wrong operation, HSDJETS and its distributors/dealers will not be held responsibility for any losses;
4. Model planes players must be above the age of 14 years old;
5. This plane used the EPO material with surface spray paint, don't use chemical liquid to clean, otherwise it will damage;
6. You should be careful to avoid flying in areas such as public places, high-voltage-intensive areas, near the highway, near the airport of any other place where laws and regulation clearly prohibit;
7. You can not fly in bad weather conditions such as thunderstorms, snow, and etc;
8. Model plane's battery, don't allowed to put in everywhere. Storage must ensure that there is no inflammable and explosive materials in the round of 2 meter range;
9. Damaged or scrap battery should be properly recycled, it can't discard to avoid spontaneous combustion and fire;
10. In flying field, the waste after flying should be properly handled, it can't be abandoned or burned;
11. In any case, you must ensure that the throttle is in the low position and transmitter switch on, then it can connect the li-po battery in aircraft;
12. Do not try to take planes by hand when flying or slow landing process. You must wait for landing stop and when the blades stop turning, first disconnect the power supply and then carry it;
13. Whether flying or debugging on the ground, always ensure that there is no one in front of the aircraft.

## Safety Instructions

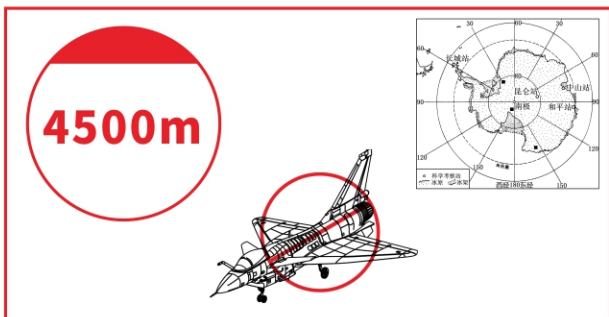
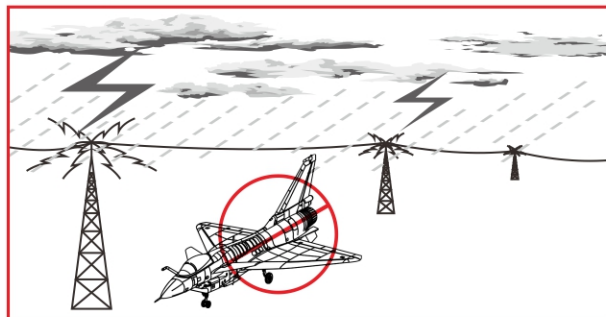
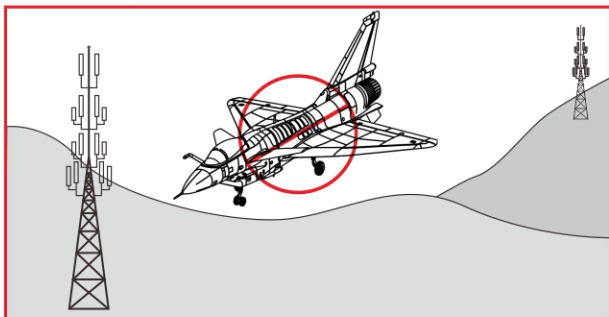
**Strongly suggestion: users while enjoying the flying, please ensure that you are in a safe and reasonable environment.**

1. It is better to try to choose an empty airspace and no obstacles conditions when you fly.
2. Stay away from people, animals, buildings, trees, water and other obstacles during flying.
3. Please keep the radio transmitter in your hand during the flight to control the model at any time to prevent accidents.
4. Please control the height of the aircraft to 120 meters to ensure the flight safety of the flyer and civil aviation. If you are in the area that have restrictions on flying altitude of 120 meters or less, please comply with its regulations. Make sure the model do not go out of sight and cause unnecessary accidents.



## Flight environment requirements

1. Do not fly in areas such as transmission towers, communication base stations, high-voltage lines, or Wi-Fi hotspots to prevent the radio transmitter signal is interferenced.
2. Do not operate in bad weather, such as: strong winds(wind speed 10 m/s and above), raining, lightning, fog, snow, etc..
3. Flying is not recommended at altitudes above 4,500 meters and in the Arctic and Arctic circles.
4. Do not fly in airports or restricted areas under the relevant laws or regulations.



## Warm Prompt

The use life of the turbine is directly related to the operation environment and operation methods. The turbine uses the most streamlined structure to achieve the most extreme working state. Each spare part is designed and produced in the extreme, and the working conditions are extremely harsh.

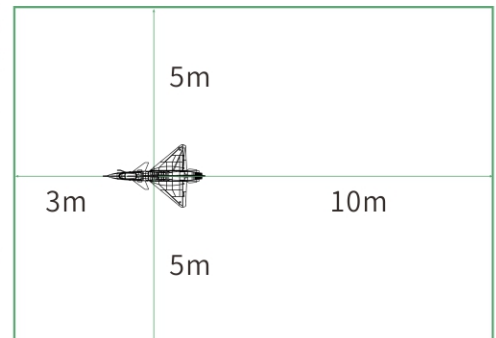
Do not dismantle the inlet and spindle structures by yourself. In case the turbine is dismantled, it must be re-installed in accordance with the specifications to achieve the original performance. Arbitrary assembly will cause the turbojet body to lose balance, and high-speed operation will cause serious consequences.

## Safety Instructions

※ Please be sure to read the following safety instructions and prepare the emergency equipment before operation.

The micro-turbine is only use on the aircraft moel. The operating state of the turbine is in a high speed and high temperature, which is quite dangerous. Users must read the product instructions before using the turbine. be familiar with the operation procedures of various functions, and understand the safety risks that may result from wrong operations. Wrong operations or parameter settings may cause damage to the engine equipment and endanger to the personal safety. Please strict compliance with product operation regulations.

※ If you are operating the turbojet engine for the first time, please work with someone with experience.



### 1. Safe distance

The turbine works at a very high speed. All persons must keep a safe distance to the turbine when it is running. The turbine must keep a distance of three meters in front of it. A distance of five meters in the left and right sides, and a distance of ten meters should be kept in the rear due to there is high temperature and heat from the tail pipe.

## Safety Instructions

### 2. Personal Safety Protection and Fire Emergency Equipment

Carbon dioxide extinguishers should be prepared at any time and placed within 2 meters of the engine. In case of danger, persons present can use it immediately. Dry powder fire extinguisher is strictly prohibited. If the powder is sprayed into the turbine, it will cause serious wear and tear of the turbine. Suggesting to use of soundproof earmuffs and goggles. The soundproof earmuffs can block the huge sound pressure and prevent hearing damage. After filling the turbine tank with fuel, the fuel equipment must be placed at a distance out of three meters. The goggles can prevent oil or foreign bodies from splashing.

#### Prepare fire extinguisher or powerful hairdryer and earmuffs.

Carbon dioxide extinguishers or the turbine dedicated power Hairdryer should be prepared at any time, and use earmuffs to block the huge sound pressure to prevent hearing damage.

It must be a carbon dioxide fire extinguisher.



OR



The turbine dedicated power Hairdryer

Recommend

+



Earmuffs(headset)

The pictures for reference only.

Dry powder fire extinguisher is strictly prohibited. If the powder is sprayed into the turbine, it will cause serious wear and tear of the turbine.

### 3. Turbine fuel and specialized lubricants

The kerosene or diesel oil can be used in the turbine, must mix with 5 % turbine special lubricant regardless when you use one of each of them. We recommend the use of Mobil Pegasus II turbojet special lubricant.

1 L = 0.8 kg, one pot mix with 20 L(16 kg)

Recommend



The pictures for reference only.

## Safety Instructions

### 4. Other security matters

※ When the engine is running, the air intake is like the vacuum. Do not draw your hand close to the air intake of the engine to prevent it from being inhaled. The air intake should be kept clear and the signal transmission wire should be properly fixed.

※ The engine inlet is suggested to be equipped with protective isolation net to prevent serious damage to the engine caused by foreign bodies.

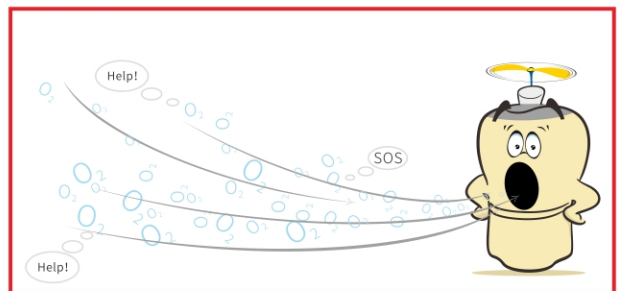
※ There will be a large amount of high temperature heat when the engine is working, and the exhaust temperature can be as high as 650 °C. Please pay attention to the insulation and protection measures of the surrounding equipment.

※ It is absolutely forbidden to start the turbine indoors. When the turbine is working, it will consume a lot of oxygen. It may cause suffocation of indoor personnel. The hot air and strong air flow that are discharged may ignite dry inflammable materials and blow debris.

※ The turbine jet's flying speed is extremely fast. It is necessary to pay attention to the distance of the operating airspace and the safety of civilian buildings and personnel and vehicles on the ground.

※ The turbine jet can easily reach speeds above 300km/h. Therefore, it is necessary to pay attention to the reliability of the aircraft's rudder surface. It is recommended that the aircraft should be equipped with wing deceleration or wheel braking equipment.

※ The AMA Association of the United States has a maximum speed limit of 320km/hr.

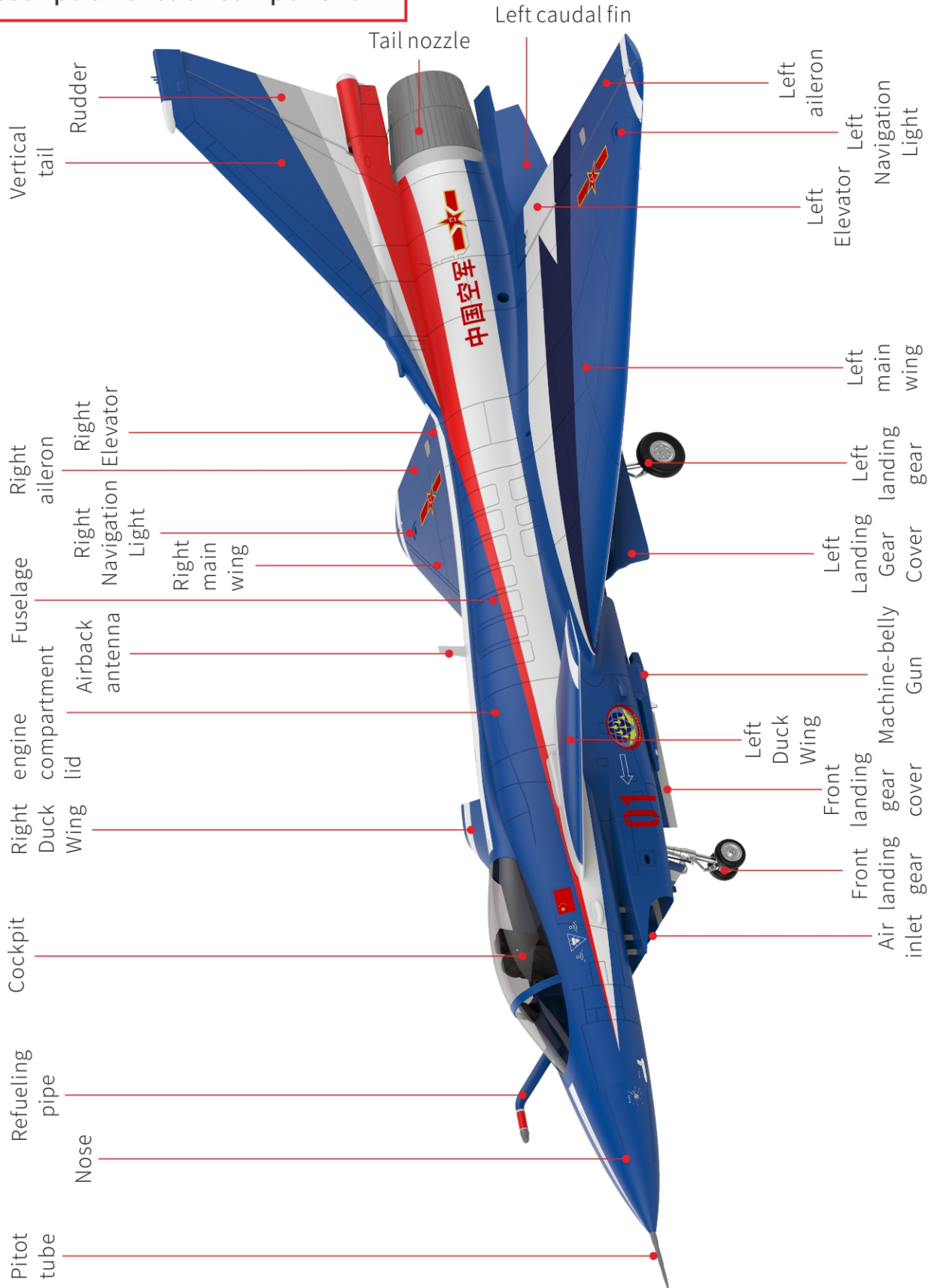


### Special tip:

The service life of the turbine jet will be directly affected by the operate environment and operate mode. The turbine jet uses the most streamlined structure to achieve the most extreme operating state. Each spare part is designed and produced with high precision, and the rotating parts have undergone high-speed dynamic balance correction, as the working conditions are therefore extremely demanding. Users should not dismantle the turbine. Once the turbine is dismantled, it must be re-installed in accordance with the specifications to achieve the original performance. Arbitrary disassembly / assembly will cause the turbine body to lose balance. High speed operation can cause the leaf disintegration or damage to the combustion chamber or other severe consequences.

\* Turbine manufacturers also do not provide any product safety and maintenance guarantees for users to disassemble / assemble by themselves.

## Description of each component



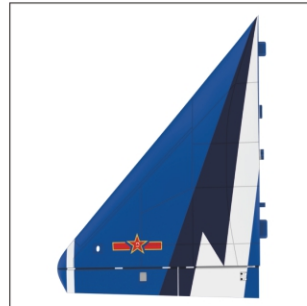


## Install instructions

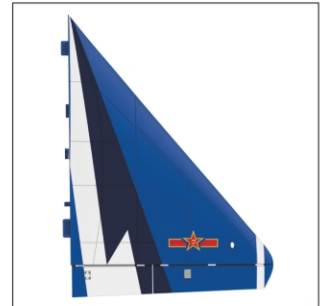
**1. Open the box(PNP version):** Take out the fuselage, left and right wings, nose, cockpit, vertical tail, left and right canards, air intakes, tail fins, main wing pin bars, stickers, instructions, accessory kits and other items in the foam box in turn, and check whether the number of packaged items is complete according to the list of packaged items in the instructions;



Fuselage×1



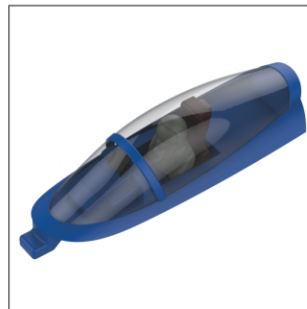
Right main wing×1



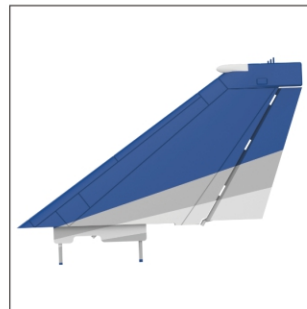
Left main wing×1



Nose×1



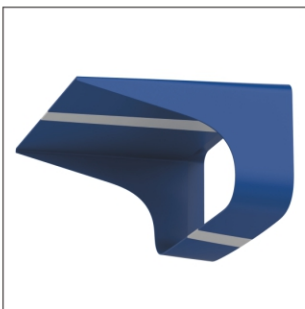
Cockpit×1



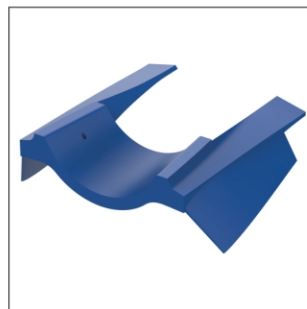
Vertical tail ×1



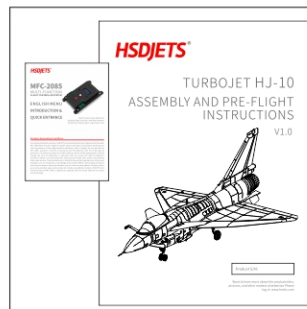
L/R canards×1



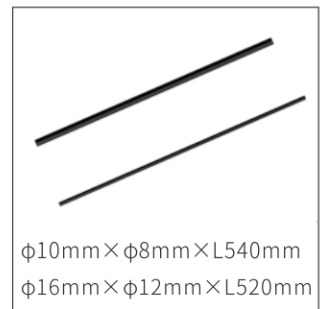
Air intakes×1



Tail fins×1



Manual×1



φ10mm×φ8mm×L540mm  
φ16mm×φ12mm×L520mm

Main wing pin bars×1



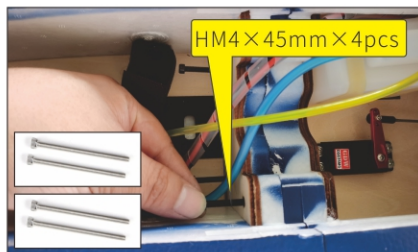
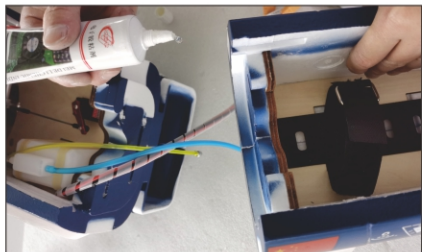
HA3×10MM×6PCS  
HM3×65MM×2PCS  
HM4×45MM×4PCS  
HM3×6MM×4PCS  
The signal line × 8PCS  
Filler tube × 1PCS  
Left/right pitot × 2PCS

Nose radar antenna × 1PCS  
Upper/lower fuselage antenna × 2PCS  
Remove the marker ribbon before flight × 1PCS  
Oil tank overflow vent plug × 1PCS

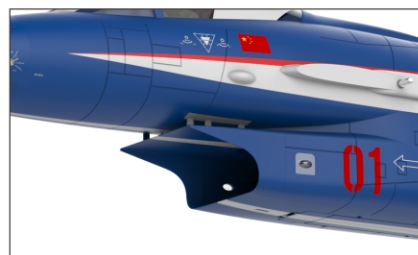
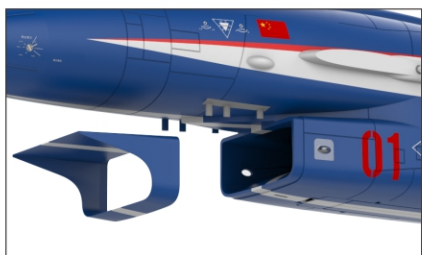
Accessories package×1

## Install instructions

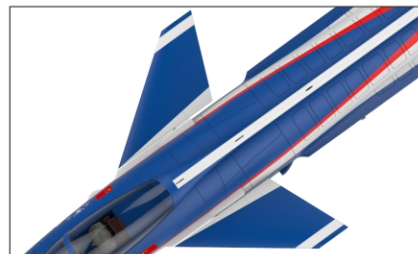
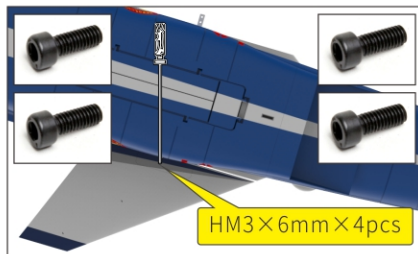
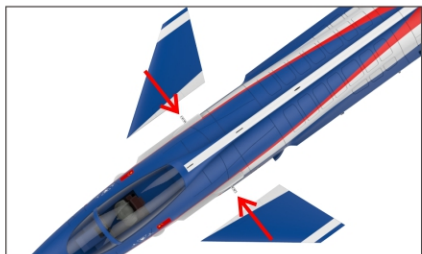
**2. Install the Nose and the Fuselage:** Take out the machine head and the machine body from the PE bag, place them on a flat and clean table, align the four screw holes of the machine head with the corresponding four screw holes of the machine body, and use the screws (HM4 × 45mm × 4pcs). Note: If you want to be more firm, you can apply EPO glue on the contact section between the machine head and the machine body before fixing with screws.



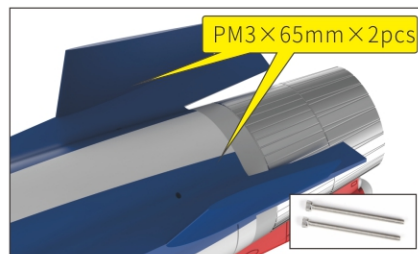
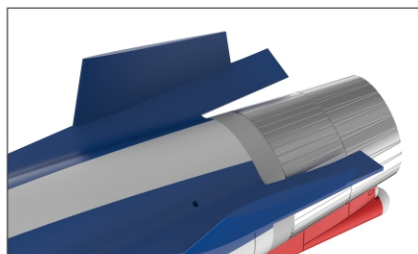
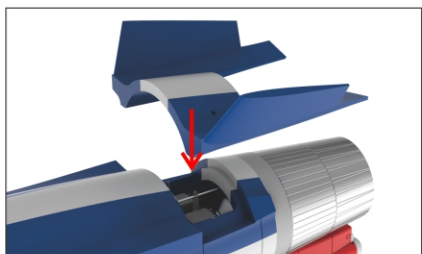
**3. Install air inlet:** Take out the air inlet from the PE bag and place it on a flat and clean table. Apply EPO glue on the contact section between the air inlet and the machine body and fix it firmly.



**4. Install the left and right canards:** Take out the left duck wing and right duck wing from the PE bag, place them on a flat and clean table, install the left duck wing and right duck wing on the designated position of the duck wing rod of the fuselage, and then use screws (HM3 × 6mm × 4pcs) fixed at the bottom.

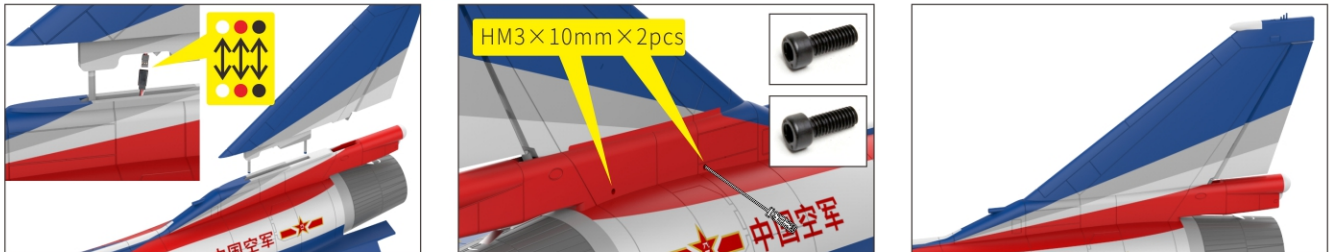


**5. Install tail fin:** Take out the tail fin from the PE bag, place it on a flat and clean platform, install the tail fin at the designated position of the body, and then use the screws (PM3 × 65mm × 2 pcs) fixed on both sides of the bottom.

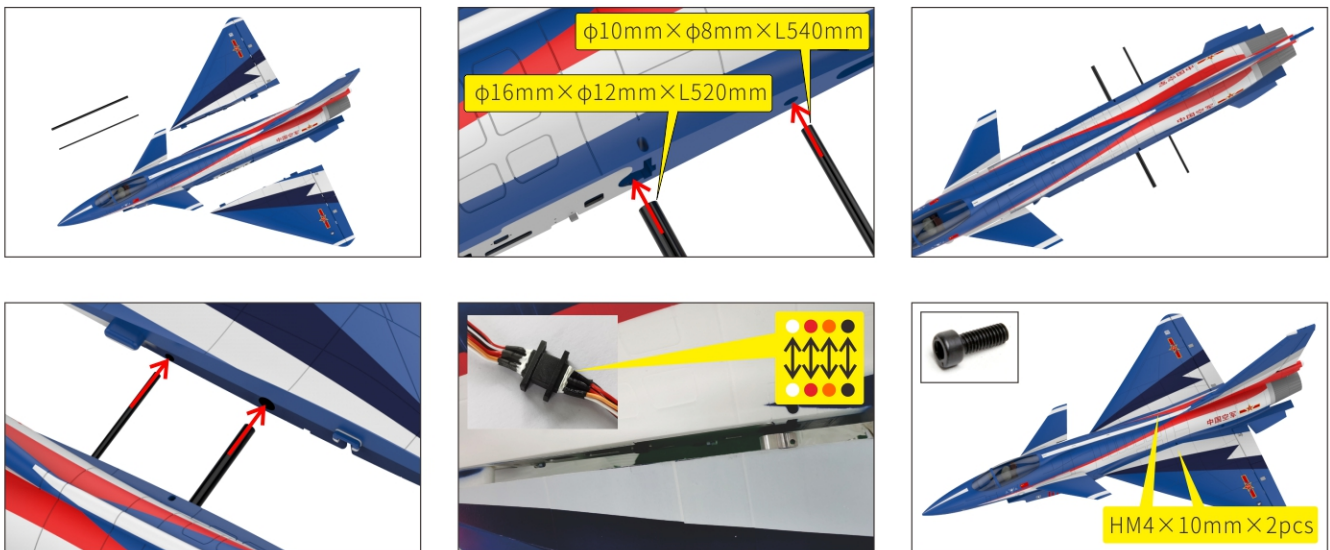


## Install instructions

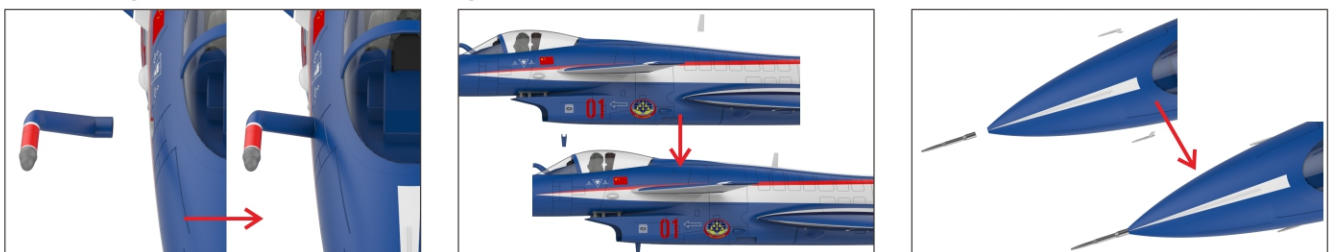
**6. Install vertical tail:** Take out the vertical tail from the PE bag, place it on a flat and clean platform, install the vertical tail at the designated position of the machine body, and ensure that the vertical tail end is connected with the signal cable at the machine body end; Install in place with screws (HM3 × 10mm × 2 pcs) side fixation. **Note: The color of the wire must match the color of the signal flat cable, and it cannot be inserted reversely.**



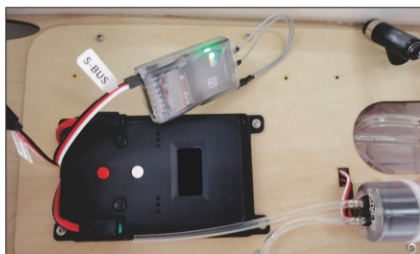
**7. Install main wing:** Take out the left wing, right wing and main wing pin rods from the PE bag, pass the main wing pin ( $\phi 16\text{mm} \times \phi 12\text{mm} \times \text{L}520\text{mm}$ ) ( $\phi 10\text{mm} \times \phi 8\text{mm} \times \text{L}540\text{mm}$ ) rods through the designated hole positions of the fuselage, ensure that the extension length of the main wing pin rods at the left and right ends of the fuselage is equal, then align the hole positions of the left and right main wings with the main wing pin rods, and insert the pin rods. Before fully inserting, ensure that the signal cables at the main wing end and the fuselage end are connected, and fix them with screws (HM4 × 10mm × 2pcs). Note: The power line and accelerator signal line must be inserted in the right color of the wire, and cannot be inserted reversely.



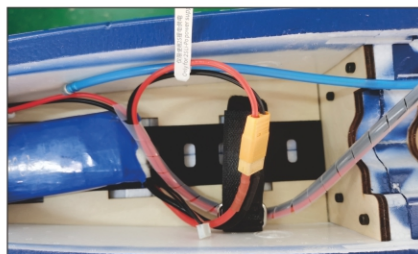
**8. Install fuel pipe, antenna and other accessories:** Assemble the fuel pipe, antenna and other accessories to the designated position of the fuselage for fixation.



## First test and adjustment after assembly



1. To find the S-BUS line at the location of the Super Integrated Control Box and connected to the receiver S-BUS port. (Note: If the receiver does not support S-BUS, the integrated control box needs to be connected to the PWM signal line connection;)



2. Connect the Super integrated control box with 2 sets of 2S lipo batteries;



3. Open the radio transmitter.



4. Super integrated control box start up. (For details on start up operations, kindly see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance)

(Note: You can change the default gear switch position according to your own custom channel.)

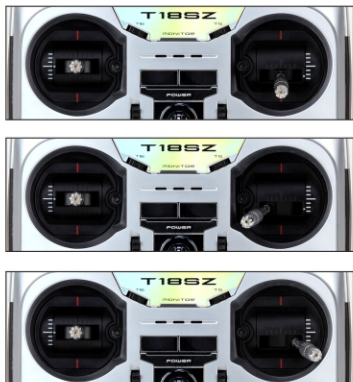
**The remote control needs to be calibrated when the 2022 2085 is paired with the remote control for the first time. The remote control needs to be recalibrated when it is replaced.**

SBUS Channel Default Settings

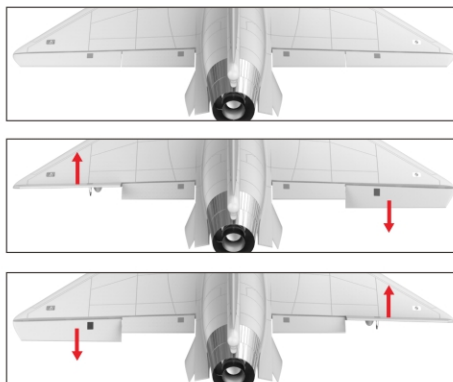
Aileron	Ch1	Front wheel correction	Ch8
Elevator	Ch2	Air brake	Ch8
Rudder	Ch4	vector control	Ch10
Throttle	Ch3	Gyroscope sensitivity	Ch11
Flap	Ch6	Speed brake	Not set
Canard control	Ch9	Smoke	Ch7
Landing gear	Ch5	Auxiliary1	Not set
Aeronautical light	Not set	Auxiliary2	Not set
Tail light	Ch3	Auxiliary3	Not set
Throttle ⌘ Elevator	Ch3	Auxiliary4	Not set
Wheel brake	Ch8	Auxiliary5	Not set

**6. Aileron test:** Check whether the aileron action is correct

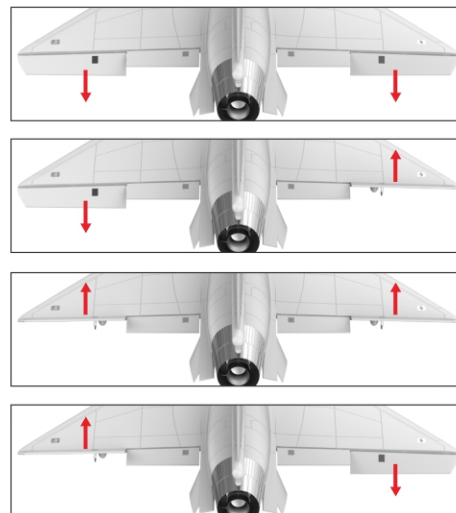
Right model throttle radio transmitter



Aileron standard action



Possible ailerons reverse action



**Note: If there is no special explanation, this user guide is introduced by default with the right model throttle radio transmitter as an example.**

When the aileron action is opposite to the specified action, you can adjust it with the 2 ways as below:

- (1). to find the reverse setting menu of servo in the radio transmitter menu, and switch in the aileron item to the forward direction.
- (2). Adjust directions of the aileron servo through the Super integrated control box (for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);

## First test and adjustment after assembly

**7. Aileron adjustment:** After the setting, the standard position of the rudder surface will be adjusted. The aileron rudder surface should be in the same plane as the wing. If there is an upward or downward adjustment, it can be adjusted by physical adjustment or system adjustment;

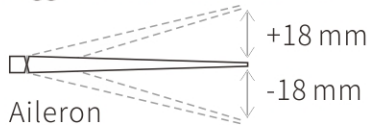
(1). Physical adjustment: by adjusting the length of the pull rod to change the rudder surface angle to keep it in the same plane as the wing;

(2). System Adjustment: Adjust the neutral point of the servo through the Super integrated control box (for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);

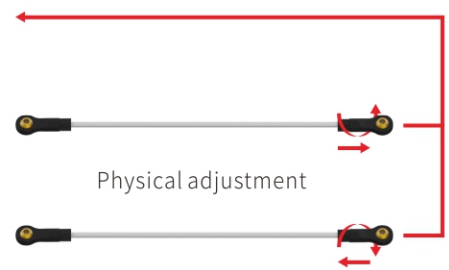
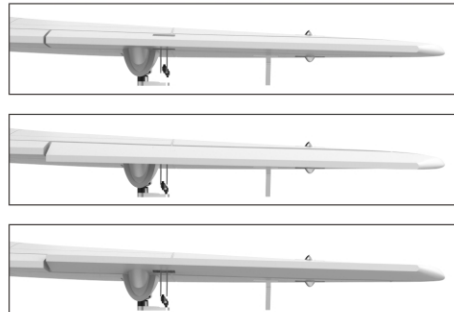
It is recommended to adjust the radio transmitter travel to 90% , adjusting the EXP curve under the same amount of servo, it recommends to adjust to -30 % EXP value in the first time; Can adjust according to the personal operating habits.



**Suggest the amount of servo:**



**EXP Recommend: -30%**

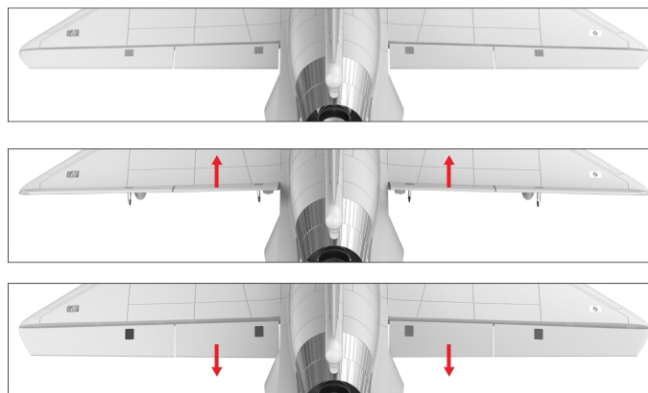


**8. Elevation test:** Check whether the elevate action is correct

**Right model throttle radio transmitter**

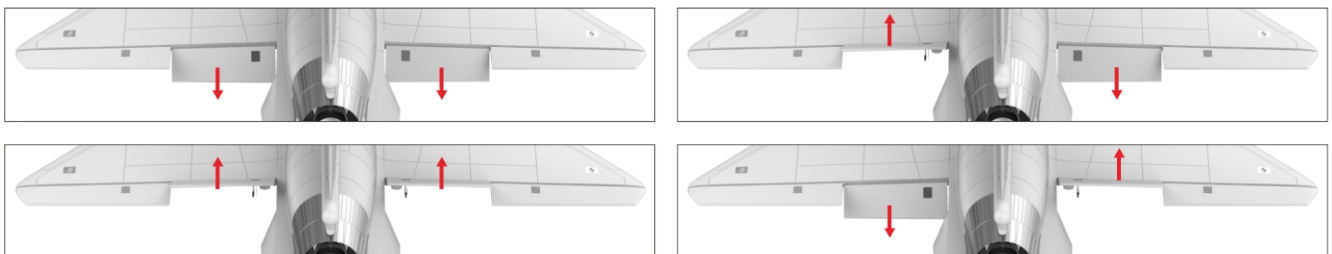


**Elevation standard action**



**Note:** If there is no special explanation, this user guide is introduced by default with the right model throttle radio transmitter as an example.

**Possible elevation reverse action**



When the elevate action is opposite to the specified action, you can adjust it with the 2 ways as below:

- (1). to find the reverse setting menu of servo in the radio transmitter menu, and switch in the elevate item to the forward direction.
- (2). Adjust directions of the elevate servo through the Super integrated control box (for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);

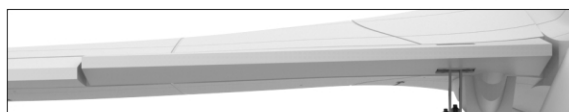
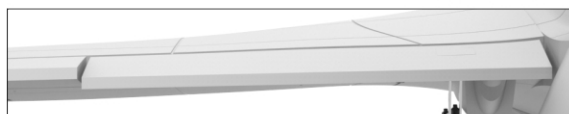
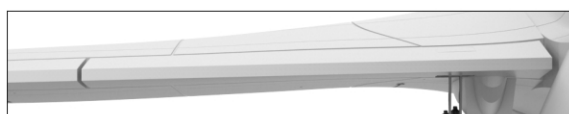
## First test and adjustment after assembly

**9. Elevation adjustment:** After the setting, the standard position of the rudder surface will be adjusted. The rear edge of elevator should be flush with the upper edge of the fuselage as the benchmark. If there is an upward or downward adjustment, it can be adjusted by physical adjustment or system adjustment;

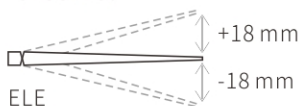
(1). Change the angle of the rudder surface by adjusting the length of the pull rod, so that the rear edge of the elevator is in a plane with the upper edge of the fuselage;

(2). System Adjustment: Adjust the neutral point of the servo through the Super integrated control box (for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);

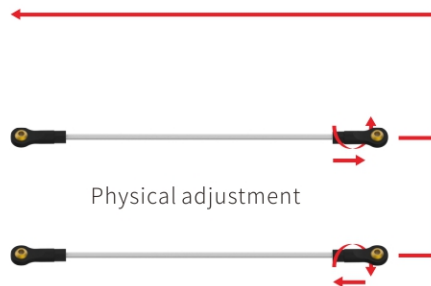
**It is recommended to adjust the radio transmitter travel to 90%, adjusting the EXP curve under the same amount of servo, it recommends to adjust to -30 % EXP value in the first time; Can adjust according to the personal operating habits.**



**Suggest the amount of servo:**



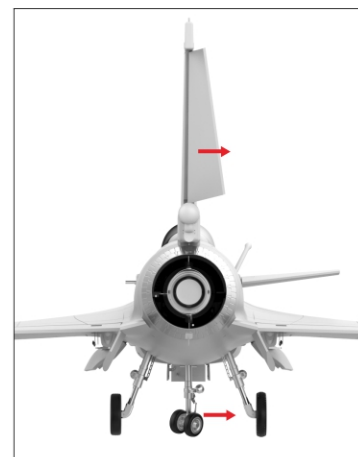
**EXP Recommend: -30%**



**10. Rudder test:** Check whether the Rudder action is correct

### Rudder standard action

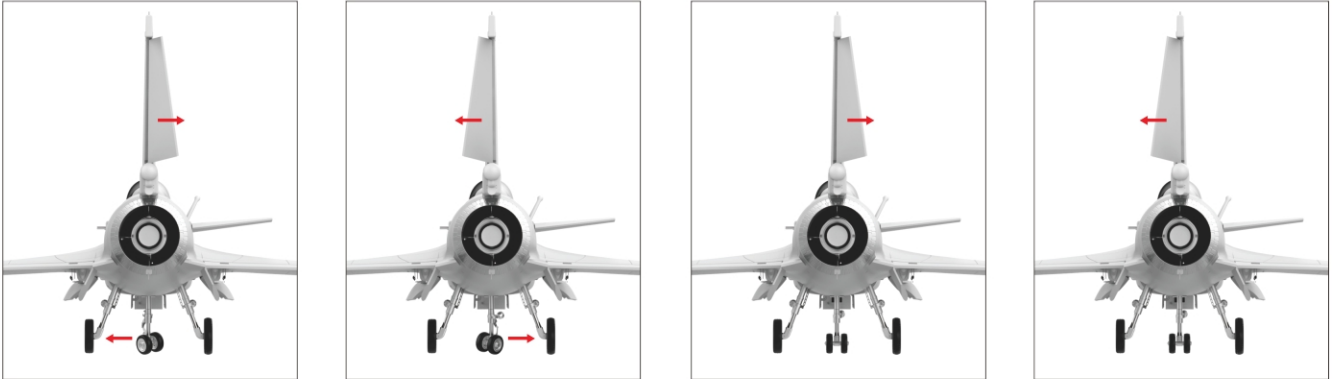
Right model throttle radio transmitter



**Note:** If there is no special explanation, this user guide is introduced by default with the right model throttle radio transmitter as an example.

## First test and adjustment after assembly

### Possible direction reverse action



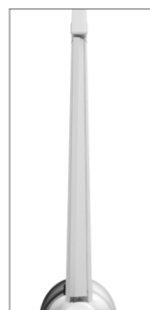
When the direction action is opposite to the specified action, you can adjust it with the 2 ways as below:

- (1). To find the reverse setting menu of direction in the radio transmitter menu, and switch in the direction item to the forward direction.
- (2). Adjust directions of the direction servo through the Super integrated control box (for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);

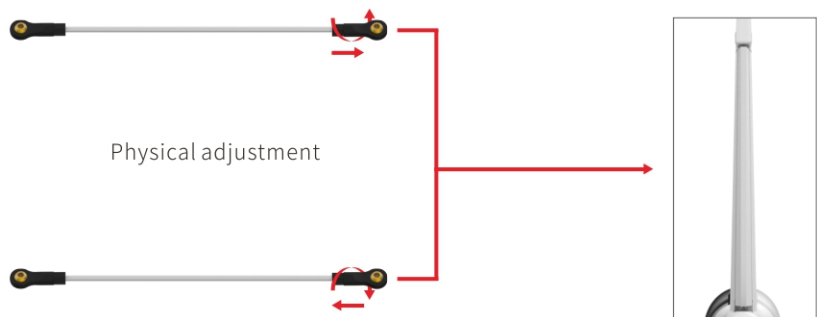
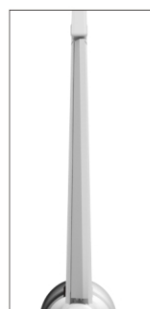
**11. Rudder adjustment:** After the setting, the standard position of the rudder surface will be adjusted. The direction rudder surface should be in the same plane as the vertical tail. If there is a left or right deviation need to be adjusted to vertical center, it can be adjusted by physical adjustment or system adjustment;

- (1). Physical adjustment: by adjusting the length of the pull rod to change the rudder surface angle to keep it in the same plane as the wing;
- (2). System Adjustment: Adjust the neutral point of the servo through the Super integrated control box (for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);

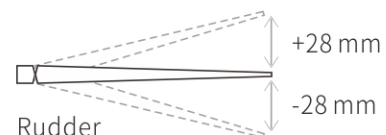
**It is recommended to adjust the radio transmitter travel to 100%, Can adjust according to the personal operating habits.**



The front landing gear steering is adjusted with the direction of the rudder surface. If you need to adjust one of them alone, it can be completed by adjusting the neutral point of the servo through the Super integrated control box. (for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);



**Suggest the amount of servo:**

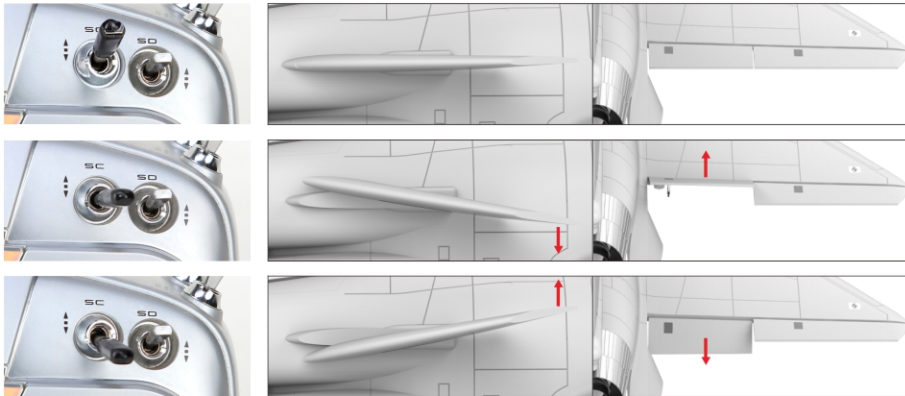


## First test and adjustment after assembly

**12. Canard wing test:** Check whether the canard movement is correct.

### Standard action of canard wing

Right model throttle radio transmitter

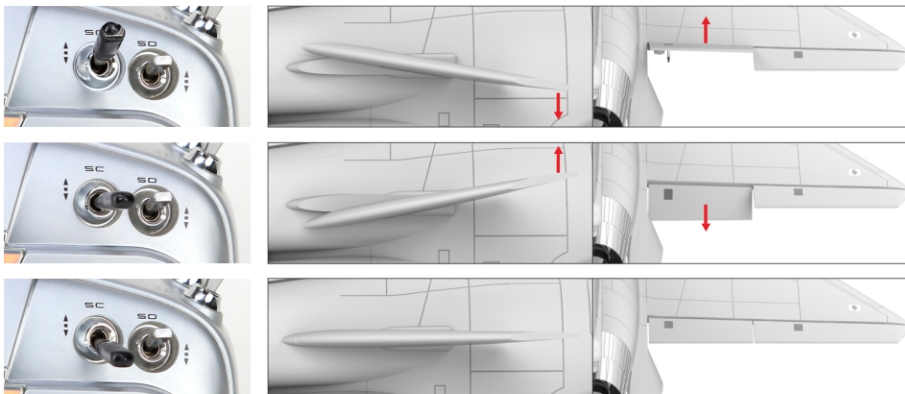


**Note:** If there is no special explanation, this user guide is introduced by default with the right model throttle radio transmitter as an example.

When the canard action is reverse to the lifting, it can be solved by adjusting the forward and reverse direction of the canard actuator through the super integrated control box (see MFC-2085 menu description and quick start of the super integrated control box for details);

### Possible reverse action of canard wing

Right model throttle radio transmitter

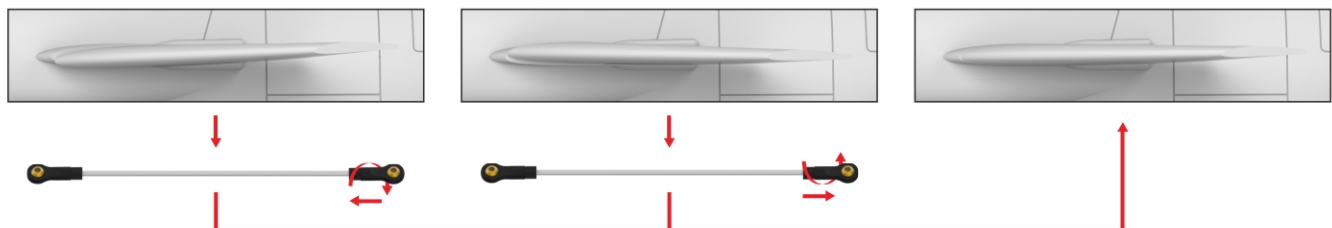
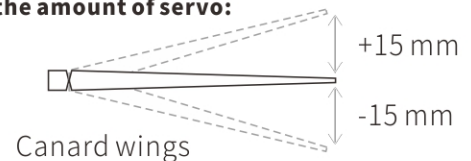


The canard working angle needs to be controlled by setting a knob switch on the remote controller. The canard can change the working angle with the size of the switch. The lowest position of the switch can completely close the canard working.

**13. Canard wing adjustment:** After setting, start to check the canard control surface. The canard control surface works with the lifting linkage. The canard working angle can be controlled by the remote control knob switch. The size can be adjusted or closed according to your habits. The canard control surface angle is parallel to the canard platform of the fuselage, if not, it can be adjusted physically;(1). Physical adjustment: change the angle of the control surface by adjusting the length of the pull rod to make the canard control surface and the canard platform of the fuselage parallel and consistent;

**Note:** The canard control surface cannot be adjusted by fine tuning or the neutral point of the steering gear. If the canard control surface is adjusted by fine tuning or the neutral point of the steering gear, turning on the canard operation and turning off the canard operation will cause the canard to change its angle. It is recommended to close the canard during landing.

### Suggest the amount of servo:





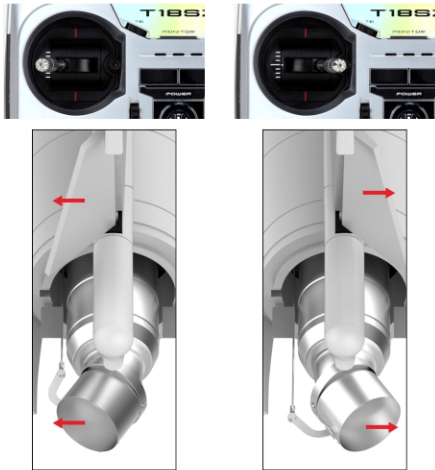
## First test and adjustment after assembly

### 14. Vector test: Check whether the Vector acts correctly

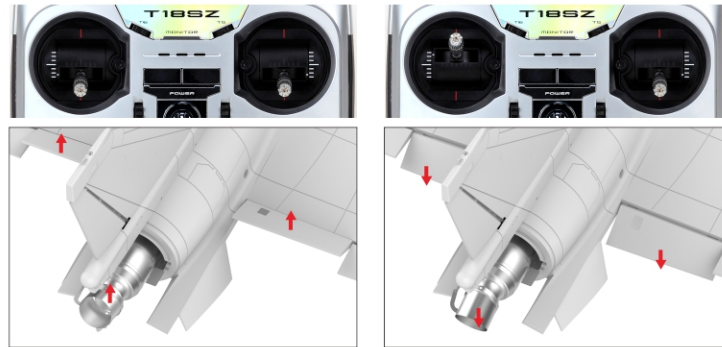
Note: If there is no special explanation, this user guide is introduced by default with the right model throttle radio transmitter as an example.

When the vector action reverses with the lifting, it can be solved by adjusting the forward and reverse direction of the vector steering gear through the super integrated control box (see MFC-2085 Super integrated Control Box Menu Description and Quick Start for details); The vector work switch needs to be set with a shift switch on the remote control.

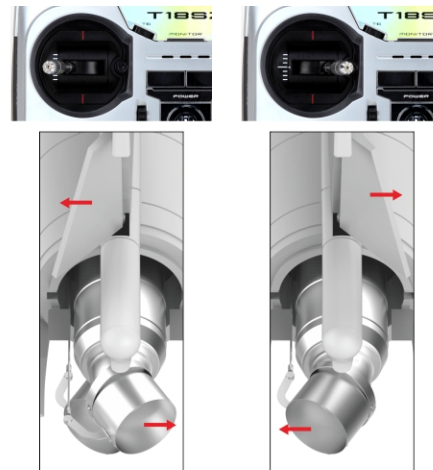
#### Vector standard lateral motion (Right model throttle radio transmitter)



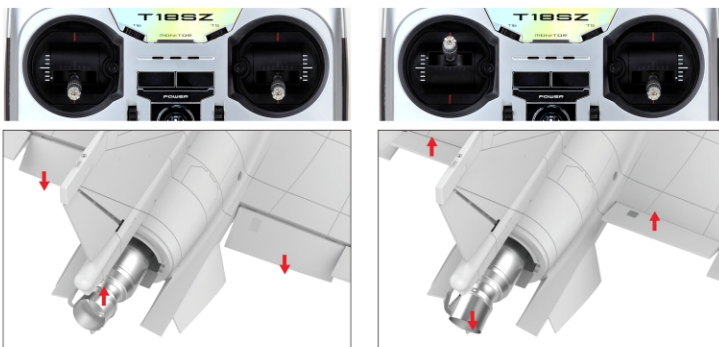
#### Vector standard longitudinal action (Right model throttle radio transmitter)



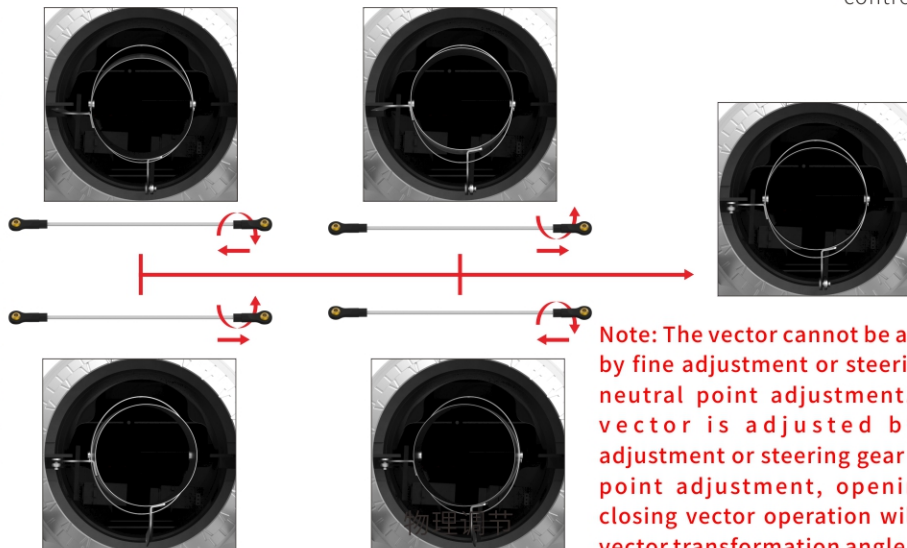
#### Vector opposite lateral action (Right model throttle radio transmitter)



#### Vector reverse longitudinal action (Right model throttle radio transmitter)



**15. Vector adjustment:** After setting, start to check the vector. The vector work is linked with the lifting and direction. The vector should be horizontal and vertical, vertical and horizontal. If it is not parallel, it can be adjusted physically; Physical adjustment: change the vector angle by adjusting the length of the pull rod to make the vector consistent with the horizontal and vertical directions of the fuselage;



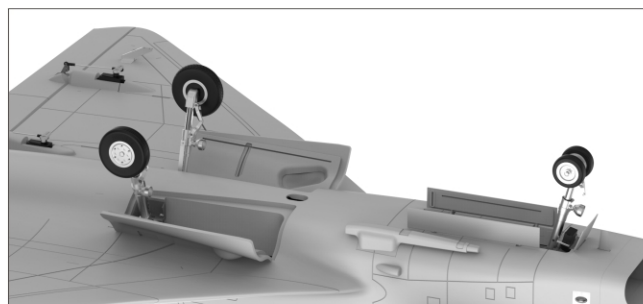
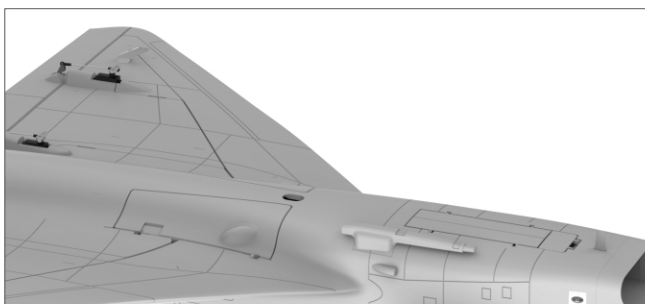
Note: The vector cannot be adjusted by fine adjustment or steering gear neutral point adjustment. If the vector is adjusted by fine adjustment or steering gear neutral point adjustment, opening and closing vector operation will cause vector transformation angle.

## First test and adjustment after assembly

### 16. Landing gear test and adjustment:

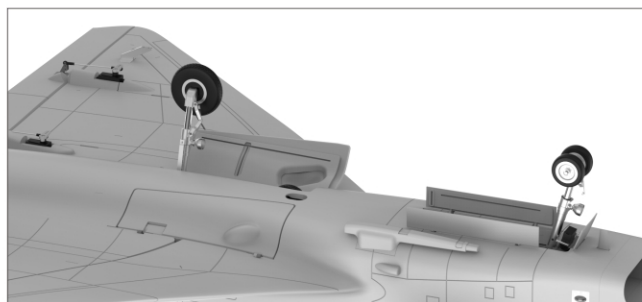
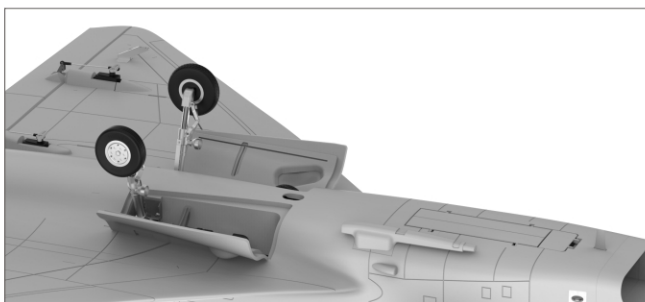
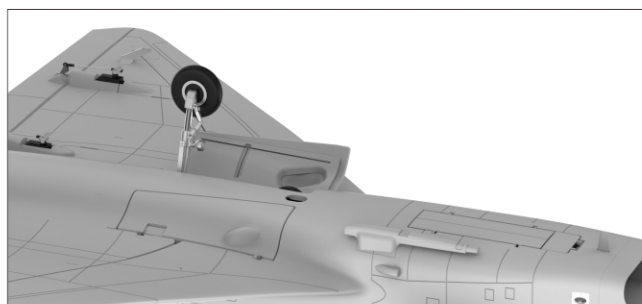
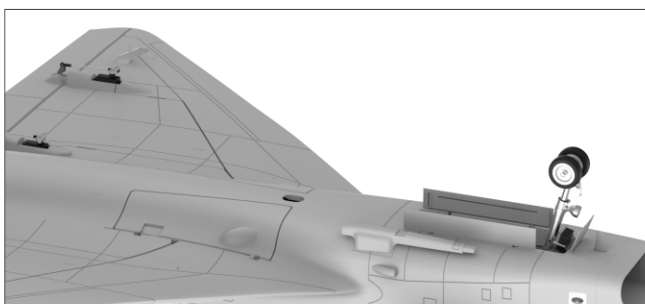
Check whether the landing gear works normally. If the landing gear light is on when the landing gear is retracted, it indicates that the landing gear action is opposite. The reason is that the positive and negative poles of the electric retraction and release are inserted reversely. It is necessary to replace and insert the positive and negative poles of the electric retraction and release from the super integrated control box (see the menu description and quick start of mfc-2085 super integrated control box for details);

#### Standard landing gear action



If the three are not synchronized, one up and two down or two up and down, it can also be solved by switching and inserting the positive and negative lines (see the menu description and quick start of mfc-2085 super integrated control box for details); The mfc-2085 super integrated control box has the function of retracting and retracting the landing gear with one button (see: menu description and quick start of mfc-2085 super integrated control box for details).

#### Possible landing gear reverse action



## First test and adjustment after assembly

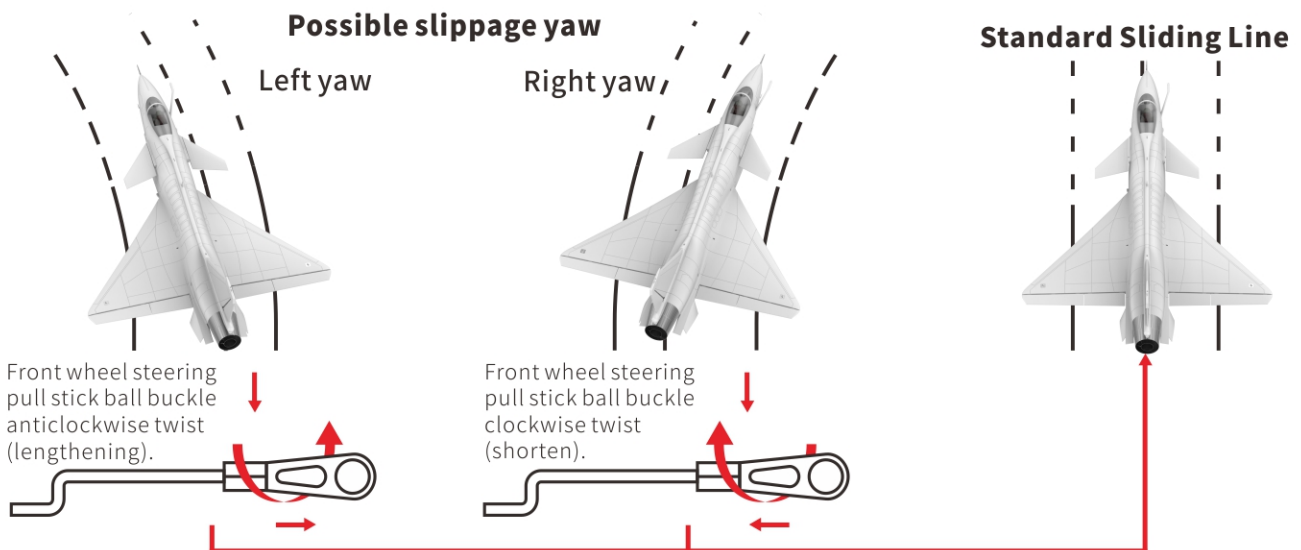
**17. Ground test and adjustment:** After the above process is gradually completed, power the plane and do straight slide test to check whether the stroke volume of the front steering servo is full. If the steering is yaw or the steering angle is too large, it can be adjusted by physical adjustment or system adjustment:

(1).Steering yaw adjustment:

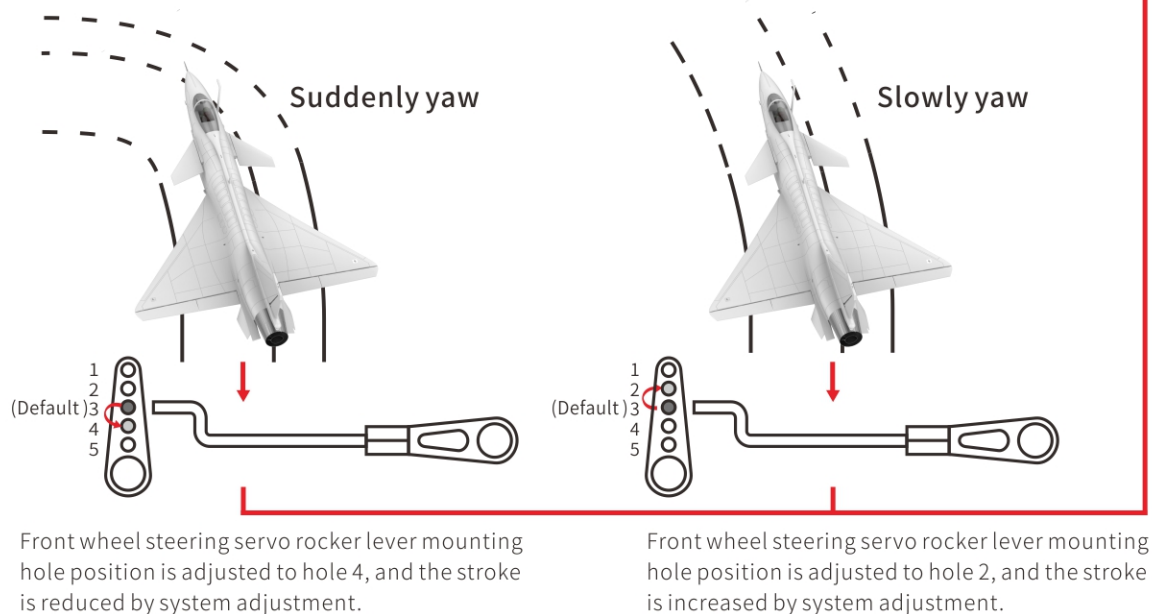
- ①. physical adjustment: Complete it by adjusting the length of the front wheel steering rod;
- ②. System Adjustment: Adjust the servo stroke by the Super Integrated Control Box(for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);

(2).Excessive adjustment of steering angles:

- ①.Physical adjustment: adjust the install holes of the pull rod in the rocker arm of the steering servo of the front wheel;
- ②.System Adjustment: Adjust the servo stroke through the Super Integrated Control Box(for details, pls see the MFC-2085 multi-function flight controller system english menu introduction & quick entrance);



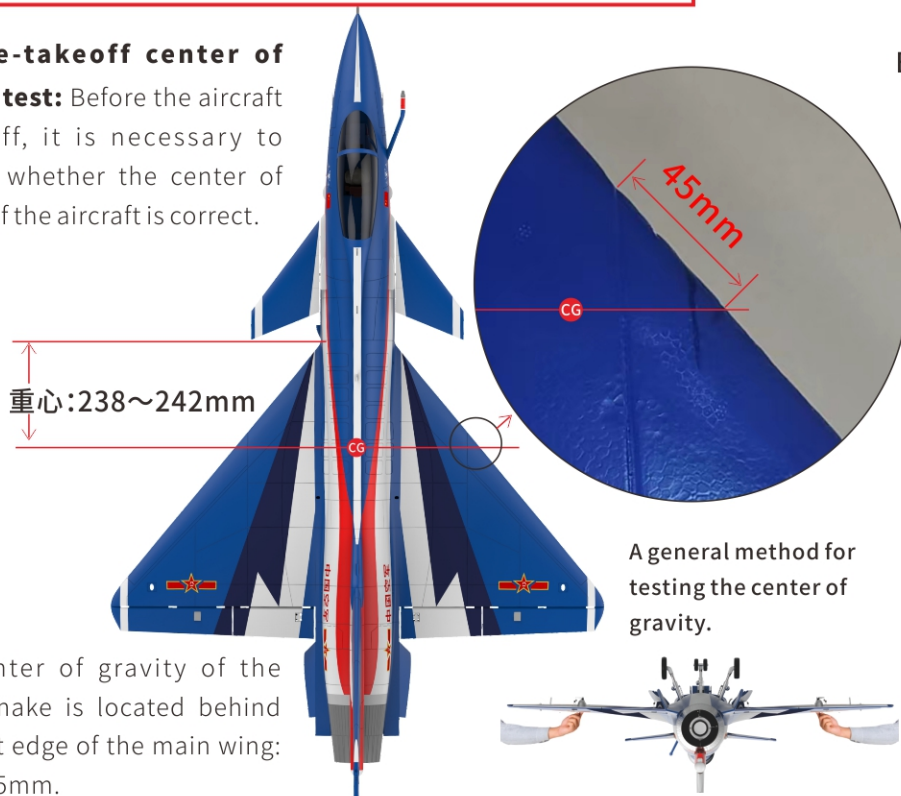
**The skid yaw angle over or smaller may happened during the operation**



## First test and adjustment after assembly

### 18. Pre-takeoff center of gravity test:

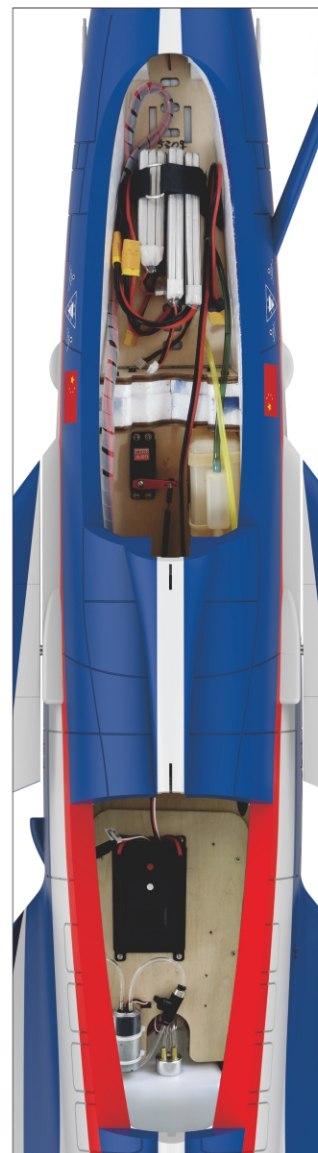
Before the aircraft takes off, it is necessary to confirm whether the center of gravity of the aircraft is correct.



The center of gravity of the Super snake is located behind the front edge of the main wing: 300~305mm.

A general method for testing the center of gravity.

### Battery assembly diagram



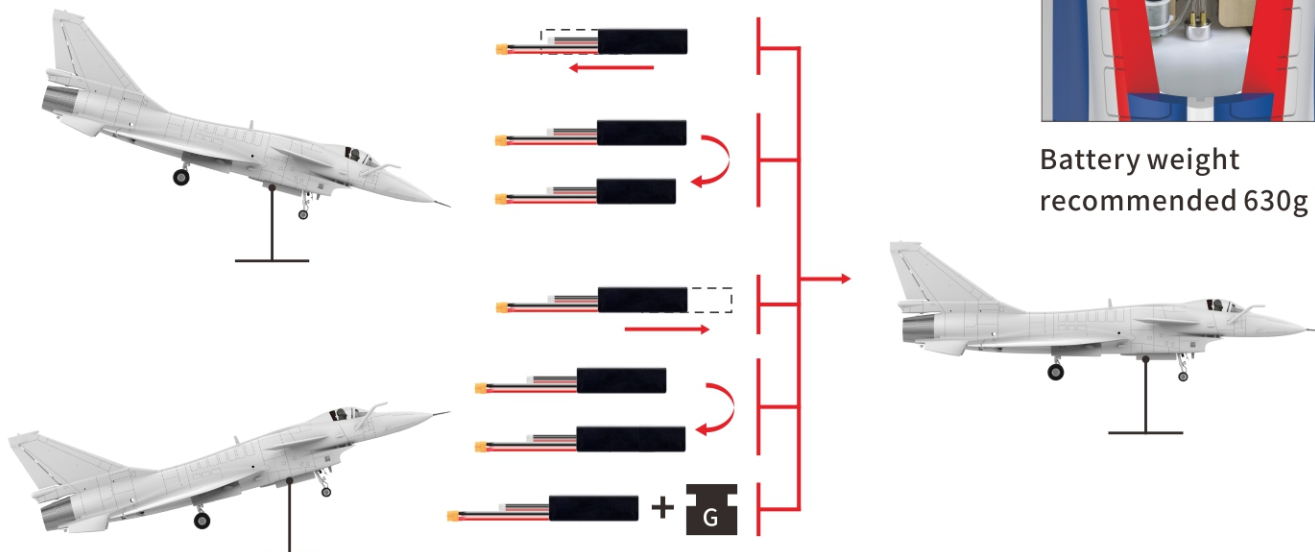
Battery weight recommended 630g

### 19. Center of gravity adjustment:

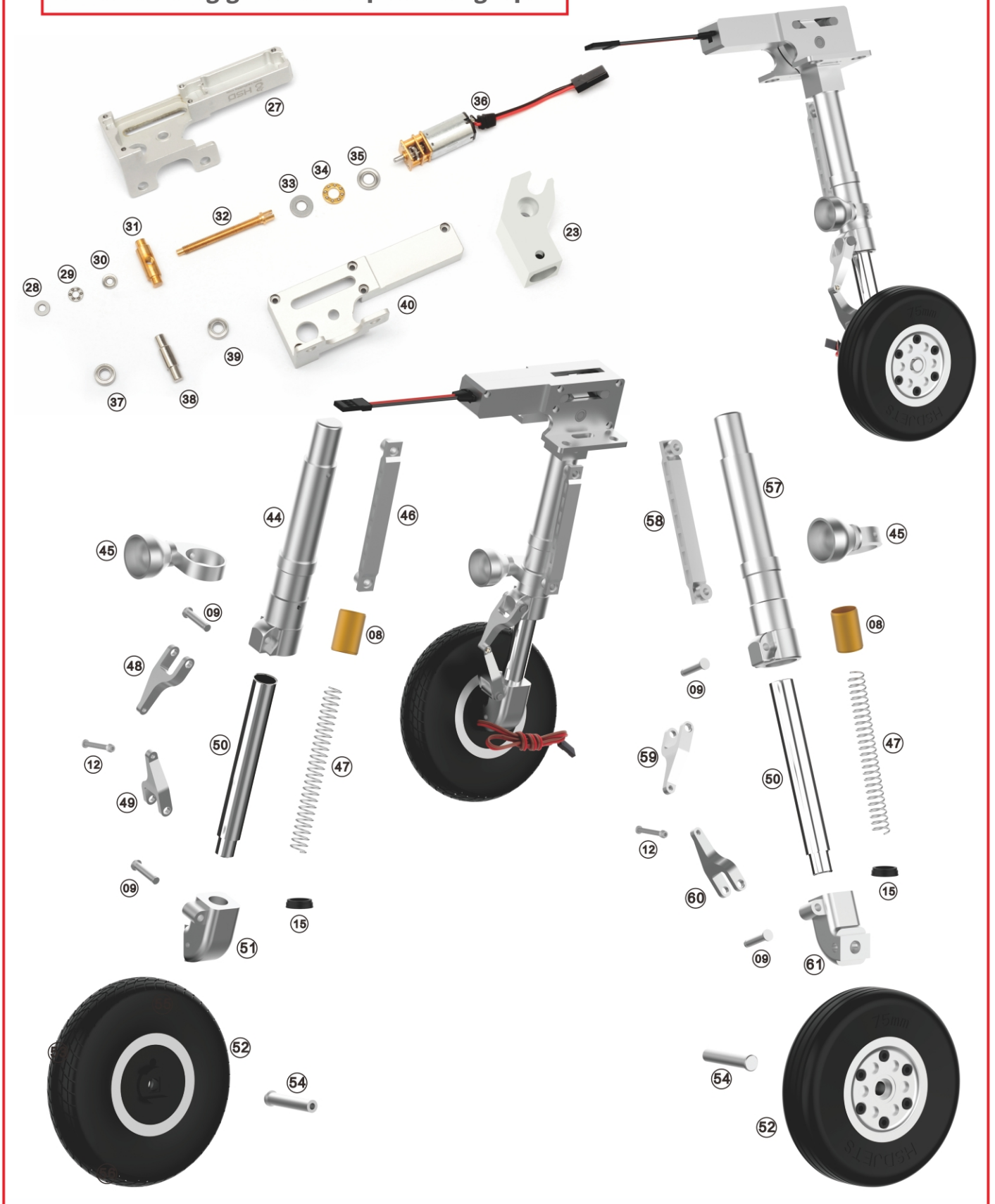
If the center of gravity position is not correct, it must be adjusted. There are generally two situations:

A, the nose is overweight (the nose of the aircraft is drooping during the center of gravity testing on the ground), can move the battery back to the tail or replaced with a smaller capacity battery that within the scope of the aircraft's electricity demand;

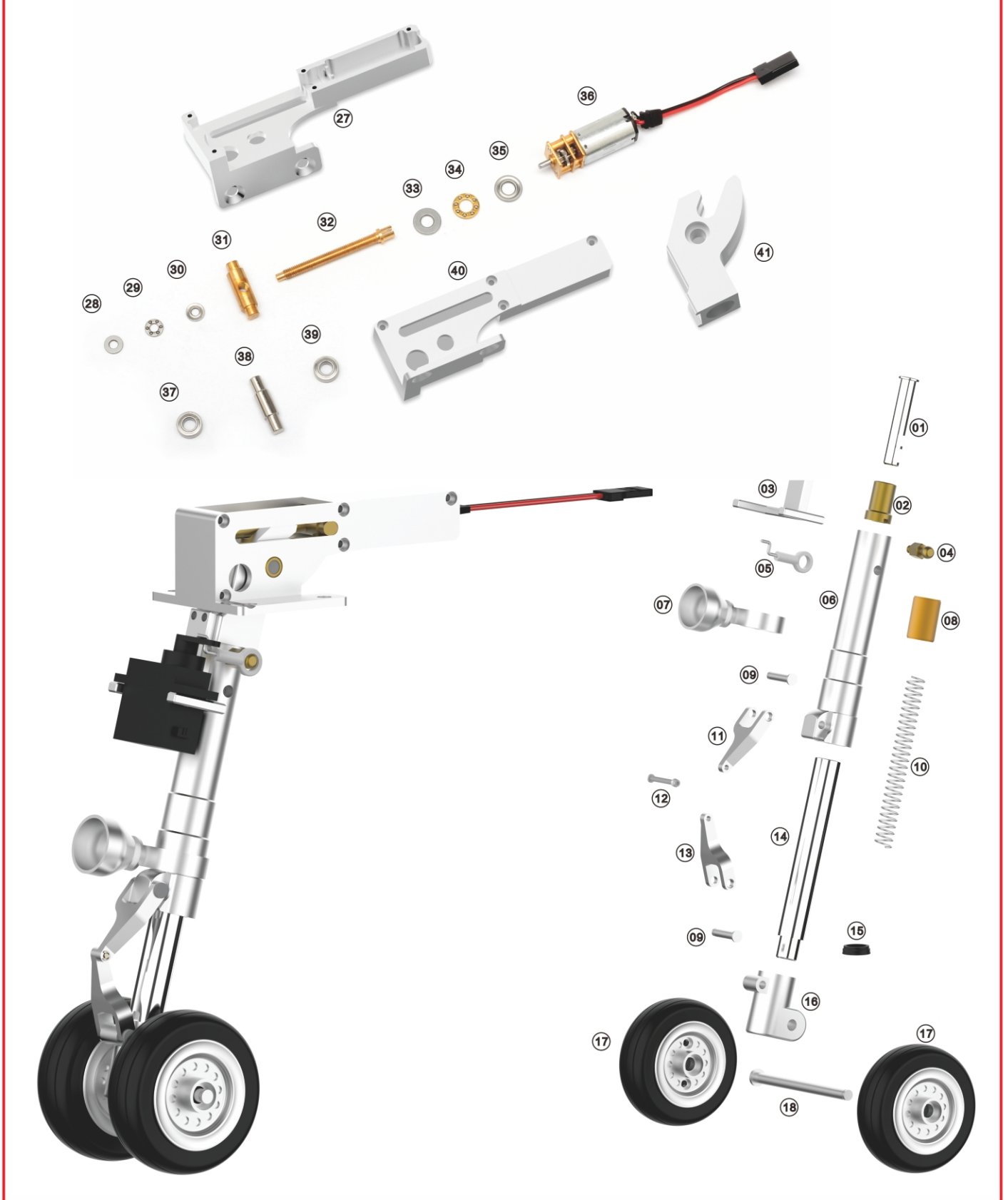
B, the nose is too light (the nose of the aircraft is upwards during the center of gravity testing on the ground), move the battery forward to the nose or replaces the larger capacity battery that within the scope of the aircraft's electricity demand;



## Rear landing gear decomposition graph



## Nose landing gear decomposition graph



## Specification and configuration

### Specifications:

Wingspan	1300 mm / 51.2 in
Length	2115 mm / 83.3 in
Take off weight	10.5 kg / 23.1 lb(with Battery & 1800cc Aviation kerosene)
Cruising speed	160~180 km/h
Flying time	4~6 minutes
Main wing area	64 dm <sup>2</sup>
Loading of airfoil surface	164.1 g/dm <sup>2</sup>
Main material	20 times the import of aeromodelling EPO
Body Surface Treatment	Matte environmental water-borne paint + decal
Suitable experience level	<input type="checkbox"/> Zero basis <input type="checkbox"/> Beginner <input checked="" type="checkbox"/> Intermediate <input type="checkbox"/> Advanced
Pnp assembly difficulty	<input type="checkbox"/> ☆(10mins) <input type="checkbox"/> ★(20mins) <input checked="" type="checkbox"/> ★☆(30mins) <input type="checkbox"/> ★★(60mins)
Operate suitable for age	Above 18 years of age
Working temperature	0°C ~ 40°C

### Configuration:

Remote control channel	10CH (Selective configuration)
Control system	2022 MFC-2085 or 2022 MFC-2085 pro
Configuration of engine thrust	8kg~12kg
Main oil tank capacity	1800CC
Smoke oil tank capacity	750CC
Power battery	According to engine matching (Selective configuration)
Receiver battery	2S / 7.4V / 3200 mAh Li-Po × 2 PCS (Selective configuration)
Servo	7.4V, 12g × 4 PCS / 7.4V, 25g × 7 PCS / 7.4V, 40g × 1 PCS (Metal gear digital)
Landing gear	All-metal simulation electronic retractable landing gear
Electromagnetic brake	Yes
LED Lighting System	Yes
Aileron	Yes
Canard wings	Yes
Horizontal tail	No
Vertical tail	Yes
Retarder plate	No
Smokeing system	Yes
Vectoring nozzle	Selective configuration
Reinforced gyro	Selective configuration
Packaging	Pearl cotton packing card + Outer Box (1523×540×375mm)
Center of gravity	238~242 mm leading edge of main wing

## Important note:

1. The 2022 2085 integrated control box of the J-10 turbojet version is equipped with the front wheel correction function. The customer can choose to turn this function on or off. The front wheel correction function needs to be activated through a switch before it can be used. After activation, it will be automatically closed within the set time.
2. When the J-10 leaves the factory, the front wheels are corrected to the default on state, and the switch is activated to set ch8 to follow the brake linkage. The working time is 20s by default. When using the front wheel correction function, ensure that the aircraft is parallel to the runway. When the aircraft taxis to the runway, activate the front wheel correction function and swing the rudder left and right to ensure that the front wheel is centered. Note: the front wheel correction function must be activated when the aircraft is aligned with the parallel straight line of the runway. When the aircraft lands, it is recommended to activate the front wheel correction when the aircraft is aligned with the parallel straight line of the runway after landing.
3. When the 2022 2085 integrated control box is connected with the remote control, the remote control must be calibrated. If the remote control is replaced, it needs to be recalibrated.



扫码关注，谢谢支持！

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