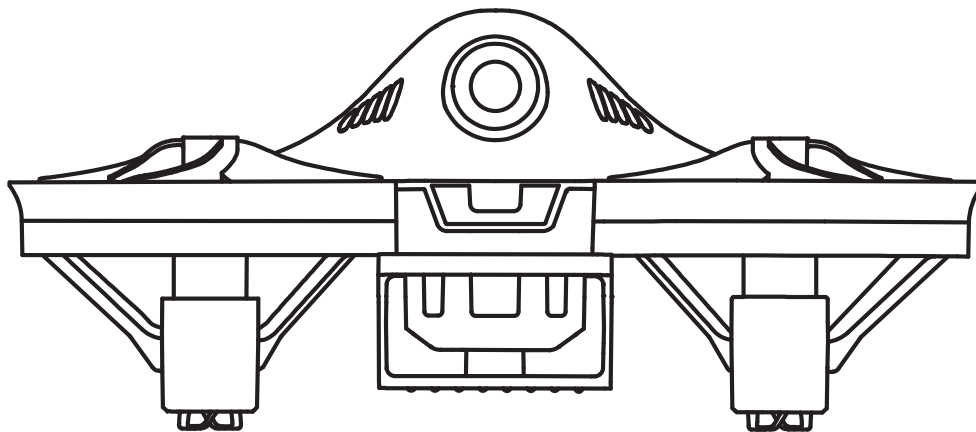**AGES 14+**

USER MANUAL
(HY-30)

Please read and follow all instructions and warnings in the manual

prior to set up or use. Do not discard the manual.

Dear Customers:

We appreciate you for choosing our products.
For the safety reasons, please read the manual carefully. Keep the manual for future reference.

1.Warning:

1.This is not a toy. It is a sophisticated hobby product equipped with electronic and mechanical parts. It must be operated with caution and common sense. The pilot should take all reasonable steps in order to protect: himself, other people, animals and property. We take no responsibility for any kind of accidents which are caused by incorrect operation, or incorrect installation of parts.
2.The product is suitable for hobbyist who are over 14 years old.
3.Please fly in areas where flying is permitted.
4.We take no responsibility of operations, usage and etc. After the aircraft is sold.
5.Please contact your local dealer for parts and repair consultations.

2. Safety Precautions

1.It is a high-risk product and we recommend always operate it in open spaces away from people, vehicles and property. Always keep a safe distance in all directions around the device while it is in operation to avoid collisions or injury.
2.The accidents (physical injuries or property damages) may be caused by: incorrect aircraft's parts installations; damaged aircraft's parts; defective electronic equipment; unfamiliar operations of the aircraft. The pilot should pay attention to the safety while operating the HY-30. The pilot is responsible for the accidents.

Flying HY-30

1.Make sure all the batteries are fully charged: transmitter battery, aircraft battery and FPV screen battery.

2.Make sure the throttle is moved to its lowest position and throttle's trim is in the neutral position.

3.Plug aircraft's battery and then turn on the transmitter. After the flight, unplug the aircraft's battery and then turn off the transmitter. Wrong sequence of this procedure may cause the aircraft to fly away or be out of control causing injuries and damages.

4.Operate the product in open spaces away from: obstacles, people, power lines, high building etc. Pay attention to the weather conditions - strong wind, rain and thunder are the potential risk factors which can lead to a loss of control.

5.Avoid water exposure to this product. Keep all the parts dry.

6.Replace broken parts of the aircraft.

7.Obey the local UAV laws and regulations.

8.HY-30 piloting requires specific skills and should be learned under direct supervision of an experienced adult. We recommend to use computer simulative software in order to get basic flying experience before taking HY-30 to the field.

9.Always keep the device in sight during operation.

10.Do not fly the aircraft while under the influence of alcohol. Keep away from the rotating blades (rotating blades may cause bodily injuries, or damage the property).

11.HY-30 is build out of: metal, fiber, plastic and electronic components. Therefore, keep away the aircraft from heat sources in order to avoid damages.
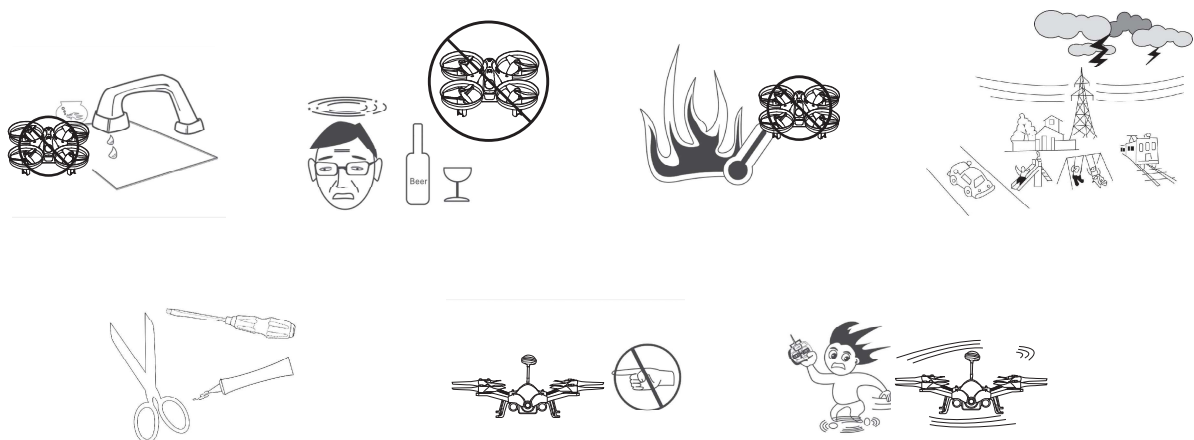
1.Know about your aircraft

The new industrial and modular design enhances product scalability, which making it easy to install, maintain, replace, and upgrade.
Equipped with an FPV real-time image transmission system, which brings you a unique visual effect!
It can achieve stunt flying experiences such as rolling back, forth, left, right, and crossing.

2.Precautions before flight

1. Remove all equipment, compare with the product list, confirm that the accessories are completed and undamaged, and ensure that the aircraft frame is not deformed.
2. Check whether the blades and motors are installed correctly and securely.
3. Check whether the motor can rotate normally. If there are obstacles such as blade friction with the frame or foreign objects entangled the motor rotation etc, Please deal with this first.
4. Ensure that the remote control battery and aircraft battery are fully charged.
5. Please ensure that you are familiar with the functions of each joystick before proceeding with the flight. For details on the remote control joystick functions, please refer to Remote Control Operations Guide.
6. When conducting a test flight, maintain a distance of at least one meter between the person and the aircraft, fly with caution, and choose open spaces.
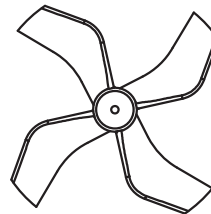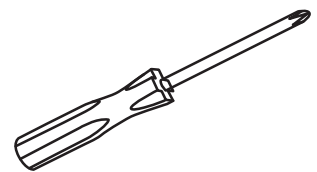
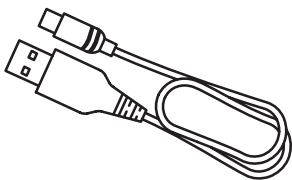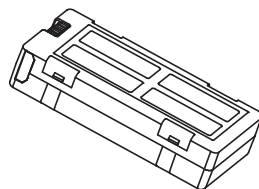# 3.All parts demonstration
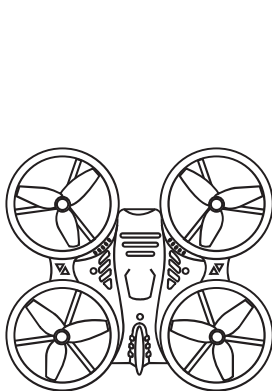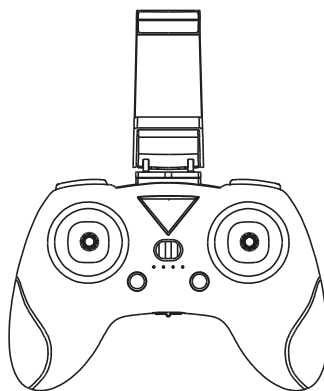
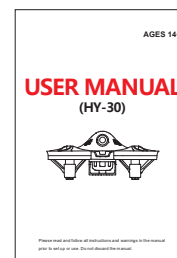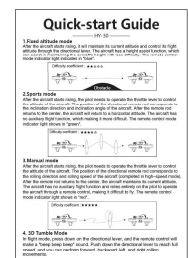| Aircraft | Remote Control | Blades | Screwdriver |

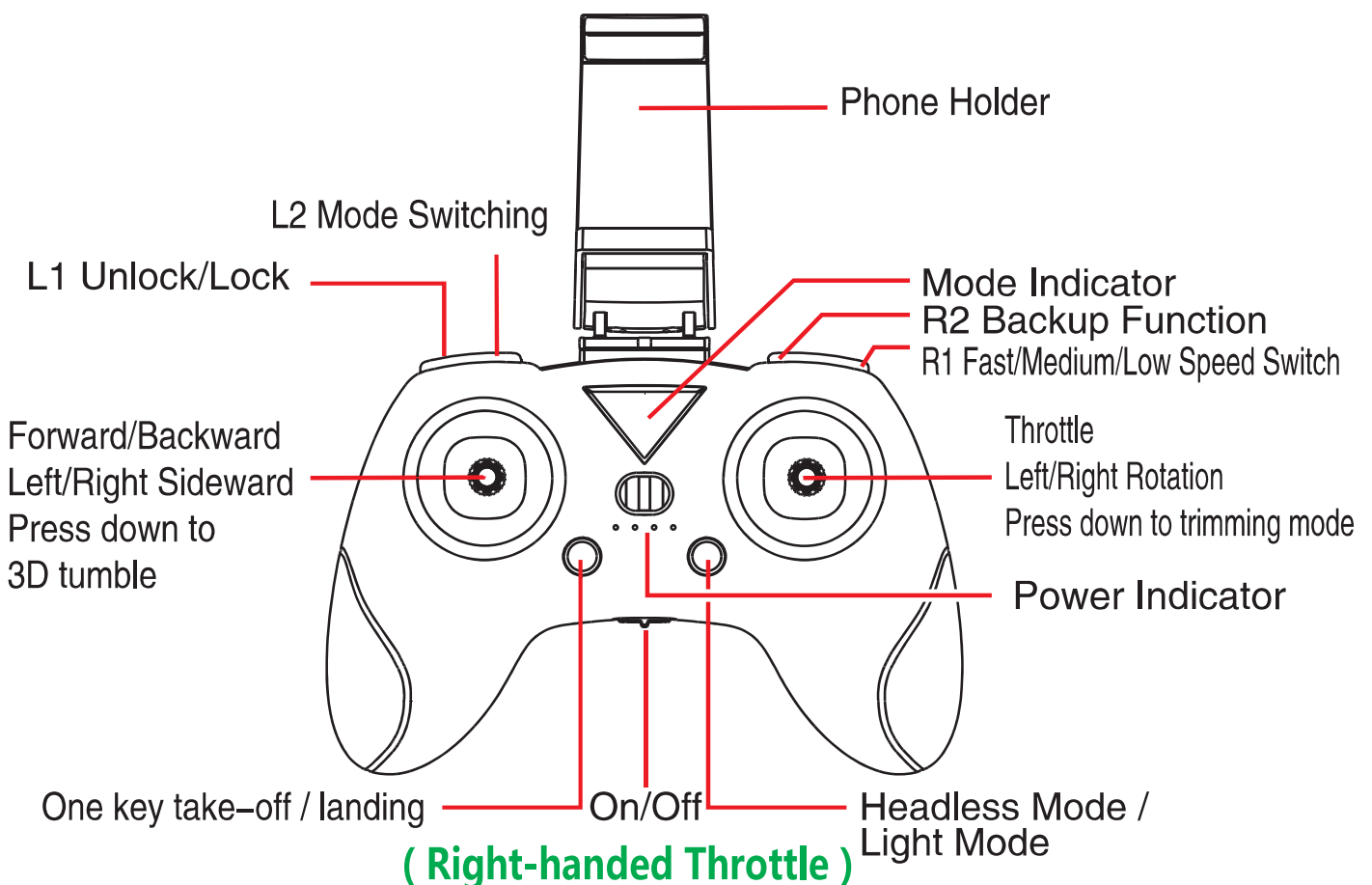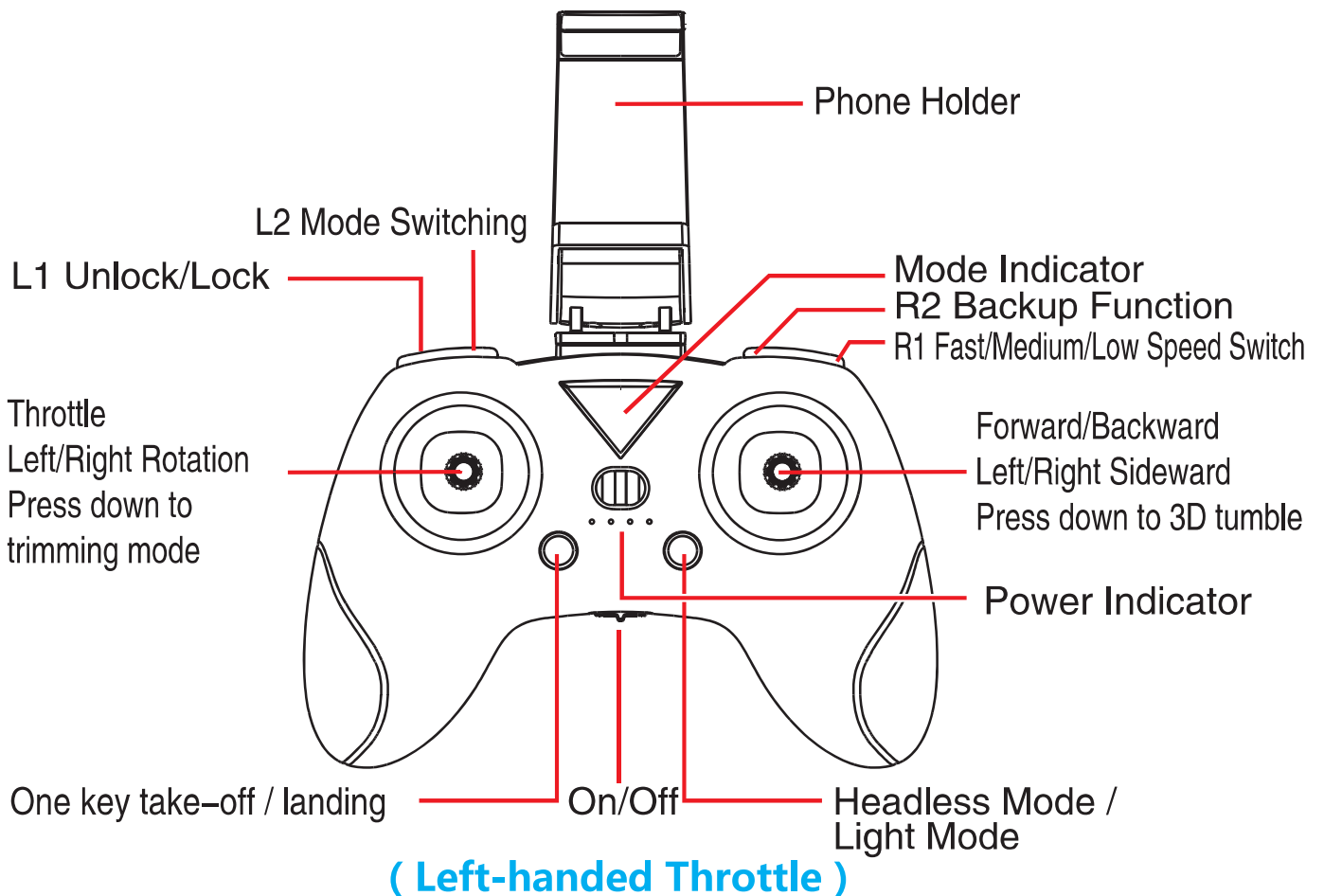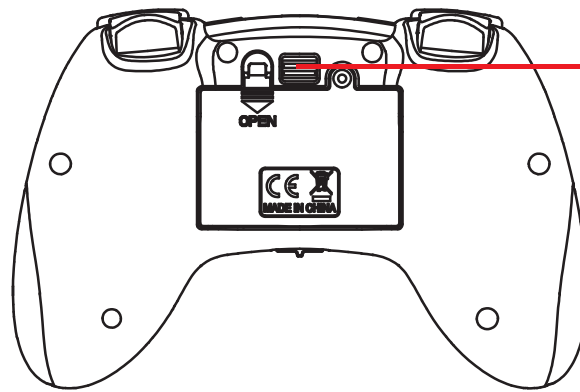| USB Charging Cable | Lithium Battery | Blade Extractor | User Manual | Baedeker |

Note: When changing blades, please install Blade A to Motor A and install Blade B to Motor B.
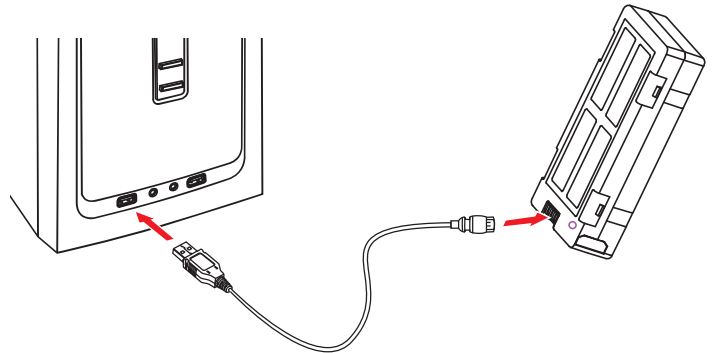
Introduction of Remote Control

Phone Holder

L2 Mode Switching

L1 Unlock/Lock

Mode Indicator
R2 Backup Function
R1 Fast/Medium/Low Speed Switch

Throttle
Left/Right Rotation
Press down to
trimming mode

Forward/Backward
Left/Right Sideward
Press down to 3D tumble

Power Indicator

One key take-off / landing   On/Off   Headless Mode /
Light Mode

(Left-handed Throttle)

Phone Holder

L2 Mode Switching

L1 Unlock/Lock

Mode Indicator
R2 Backup Function
R1 Fast/Medium/Low Speed Switch

Forward/Backward
Left/Right Sideward
Press down to
3D tumble

Throttle
Left/Right Rotation
Press down to trimming mode

Power Indicator

One key take-off / landing   On/Off   Headless Mode /
Light Mode

(Right-handed Throttle)

4

Remove Button for
Phone Holder

4.Operation before Flight

① Charging before Flight

Connect the aircraft to the charger, and then plug the USB charging cable into the USB port of the computer or other USB connected charger. When the USB indicator light is on, it indicates charging is in progress, and when the light is off, it indicates full charge. In addition to Apple chargers, this USB charging cable can be connected to other smartphones' chargers or mobile power sources, or to the USB interface of the car for charging. The voltage at the USB interface must be+5+0.5v.

Preparation before Flight

1. Install the fully charged battery into the battery compartment of the aircraft, turn on the aircraft's power, and the aircraft's indicators will light up.
2. Place the aircraft on a horizontal surface.
3. Ensure that there is at least one meter away from the tail of the aircraft (facing the tail of the flight).
4. Reconfirm that the flying environment is away from people, animals, and other obstacles.

② Precautions for Flight Control

Control range: The flight range of the aircraft is approximately 200 meters. If it exceeds the range, the aircraft will lose control.
Warning: Flying in strong winds may cause the aircraft to exceed its control range and cause it to lose control.

Please refer to the manual to ensure correct flight operations
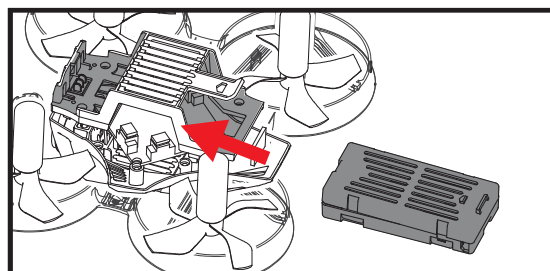
Do not immediately release the throttle during high-altitude flight, which can cause the aircraft to plummet and cause component damage.

The aircraft should be kept about 1 meter above the ground for flight operations.

Do not fly in areas with many obstacles to avoid unnecessary damage to items.

③ Remote Control Battery Installation

Attention: The battery needs to be installed correctly in the positive and negative directions.

① Open the battery protection cover.

② Install three 1.5 "AAA" alkaline batteries (excluding batteries)

③ Lock the battery protection cover.
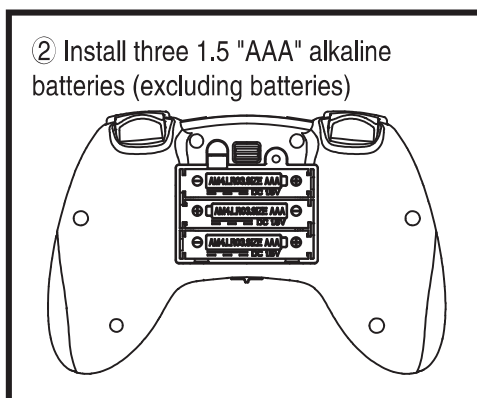
④ Preparation before Flight

1. Install the fully charged battery into the battery compartment of the aircraft, turn on the aircraft's power, and the aircraft's indicators will light up.
2. Place the aircraft on a horizontal surface.
3. Ensure that there is at least one meter away from the tail of the aircraft (facing the tail of the flight).
4. Reconfirm that the flying environment is away from people, animals, and other obstacles.

⑤ Aircraft Code Activation Method

Fixed altitude mode
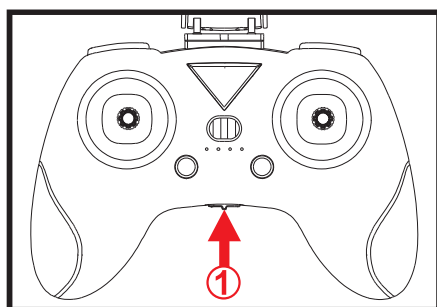
(Left-handed Throttle) (Right-handed Throttle)

1)First turn on the power of the aircraft, then turn on the power of the remote control. When you hear a "beep" sound, the frequency alignment is successful.
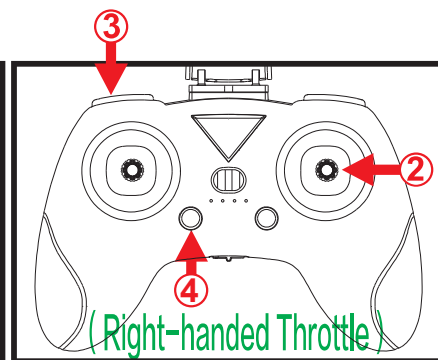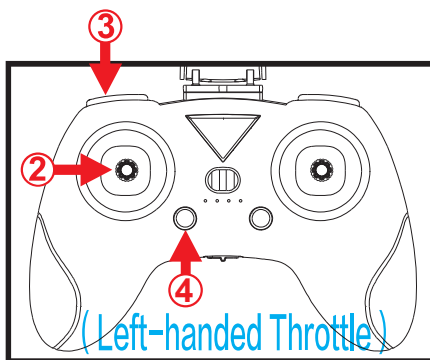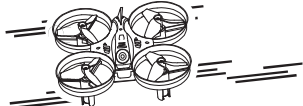
2)Pull the throttle lever to the middle place(the throttle will send a "beep" sound for indication), press the L1 button to unlock the aircraft, and the aircraft propeller will start.Move the throttle up or press the one–key turn on for flight.

Sports mode/Manual mode

1)First turn on the power of the aircraft, then turn on the power of the remote control. When you hear a "beep" sound, the frequency alignment is successful.

6

③ ② (Left-handed Throttle)

③ ② (Right-handed Throttle)
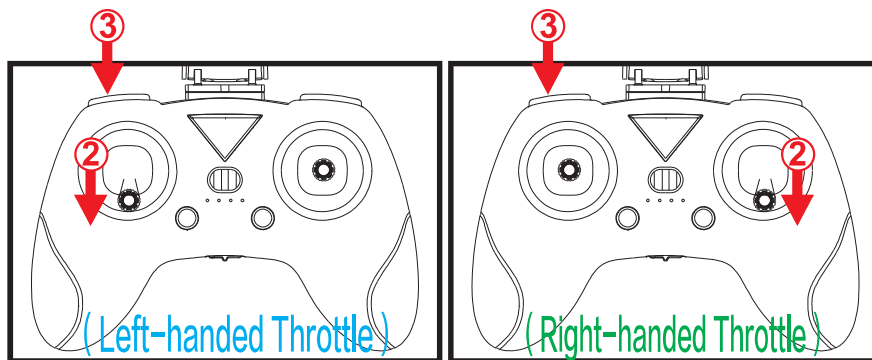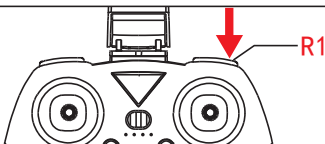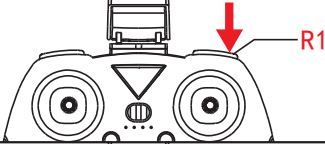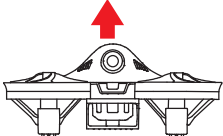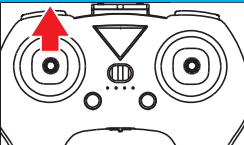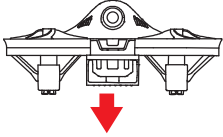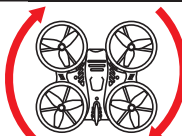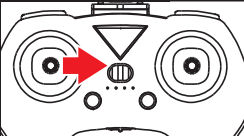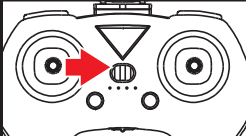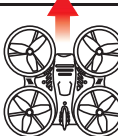
2)Pull the throttle lever all the way down, press the L1 button to unlock the aircraft, and the aircraft propeller will start.Move the throttle up for take-off and flight. (Note: It must pull the throttle lever to the bottom when it is in sports mode/manual mode to unlock the flight or switch the flight mode.)
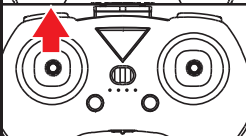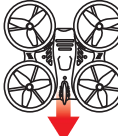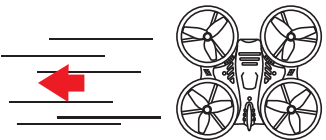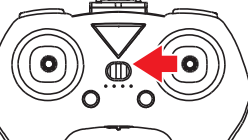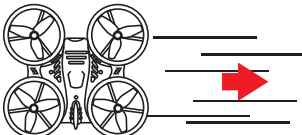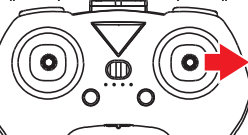
Note: If the aircraft is unable to align the code, please refer to the advanced mode instructions to re align the frequency.
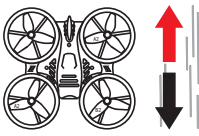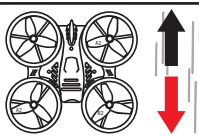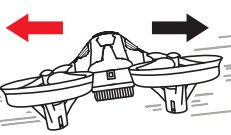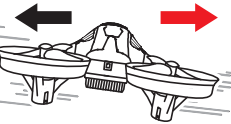
5.Remote Control Operation

■ Fast/Medium/Low Speed Mode

Low Speed Mode	Press the button and sounds "beep" to enter the low speed mode (SLOW).	R1	
Medium Speed Mode	Press the button and sounds "beep beep" to enter the medium speed mode (MID).	R1	
Fast Speed Mode	Press the button and sounds "beep beep beep" to enter the low speed mode (FAST).	R1	

Operation Ways			Left-handed Throttle	Right-handed throttle
Rise		Push the throttle lever upwards, and the spinning speed of the rotor increases, so that the aircraft begins to rise.		
Descent		Pushing down the throttle lever slows down, and the spinning speed of the rotor slows, so that the aircraft begins to descend.		
Turn the nose to the left		Slowly push the left joystick to the left, and the nose of the aircraft turns left.		
Turn the nose to the right		Slowly push the left throttle lever to the right, and the nose of the aircraft's turns right.		
Forward		Push the directional joystick upwards, the nose slightly downwards, and then the aircraft moves forward.		
Backward		Push the directional joystick downwards, the tail slightly downwards, and then the aircraft moves backwards.		

Operation Ways			Left-handed Throttle	Right-handed throttle
Left sideward flight		Push the right joystick to the left, and the aircraft moves to the left.		
Right sideward flight		Push the right joystick to the right, and the aircraft moves to the right.		

Fine Tuning Introduction			Left-handed Throttle	Right-handed throttle
Fine tuning backwards		Press down the throttle to enter fine-tuning mode, and push down the directional lever to make adjustments.		
Fine tuning forwards		Press down the throttle to enter fine-tuning mode, and push up the directional lever to make adjustments.		
Fine tuning left sideward		Press down the throttle to enter fine-tuning mode, and push left the directional lever to make adjustments.		
Fine tuning right sideward		Press down the throttle to enter fine-tuning mode, and push right the directional lever to make adjustments.		

■ 3D Tumble Mode

In flight mode, press down on the directional lever, and the remote control will make a "beep beep beep" sound. Push down the directional lever to reach full speed, and you can perform forward, backward, left, and right rolling movements.

(Left-handed Throttle)

(Right-handed throttle)
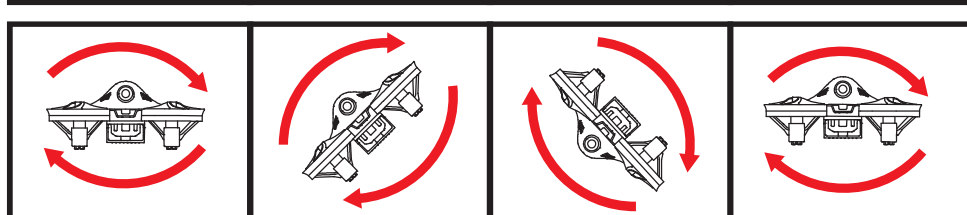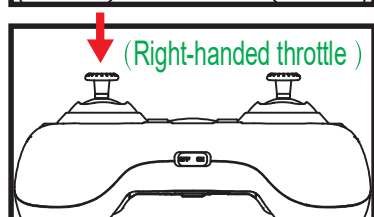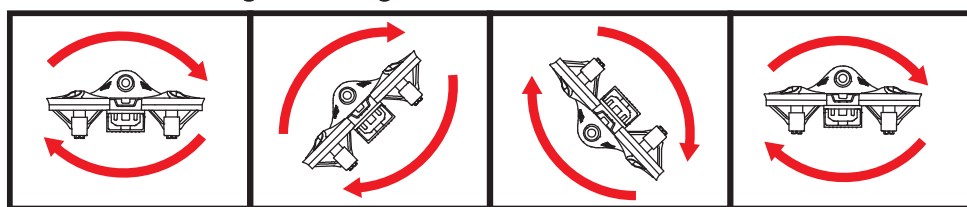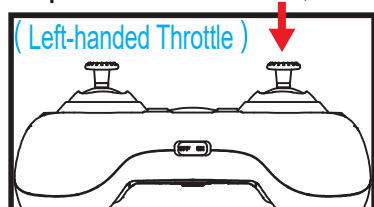
■ Headless mode

Short press the headless mode button during flight mode, and the aircraft enters headless mode. The front of the aircraft is the direction when the aircraft enters headless mode.
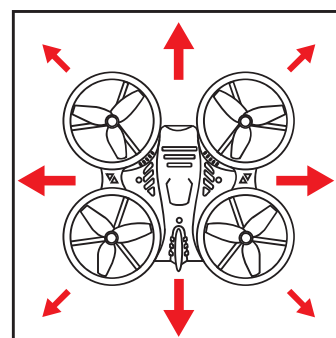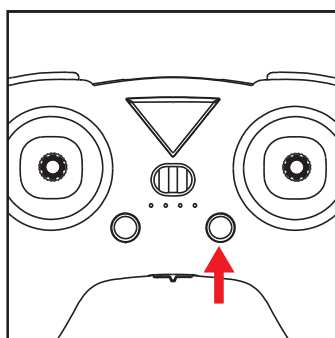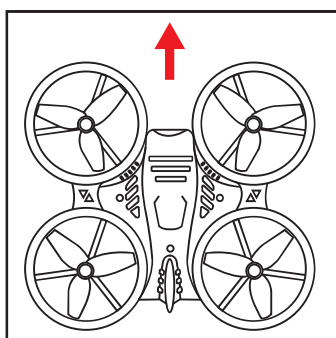
■ Flight Mode

Corresponding to the flight mode of the aircraft, the pilot can choose different flight modes based on different flight environments and their own control flight skills.

☀ Fixed altitude mode
☀ Sports mode
☀ Manual mode

1.Fixed Altitude Mode: After the aircraft starts rising, it will maintain its current altitude and control its flight attitude through the directional lever. The aircraft has a height assist function, which can assist in maintaining the aircraft's height with less difficulty. The remote control mode indicator light indicates in "blue".
2.Sports Mode: After the aircraft starts rising, the pilot needs to operate the throttle lever to control the altitude of the aircraft. The position of the directional remote rod corresponds to the inclination direction and inclination angle of the aircraft. After the remote rod returns to the center, the aircraft will return to a horizontal attitude. The aircraft has no auxiliary flight function, which making it more difficult. The remote control mode indicator light shows in "green".
3.Manual Mode: After the aircraft starts rising, the pilot needs to operate the throttle lever to control the altitude of the aircraft. The position of the directional remote rod corresponds to the rolling direction and rolling speed of the aircraft (completed in high-speed mode). After the remote rod returns to the center, the aircraft maintains its current attitude. The aircraft has no auxiliary flight function and relies entirely on the pilot to operate the aircraft through a remote control, making it difficult to fly. The remote control mode indicator light shows in "red".

6.Advanced Mode
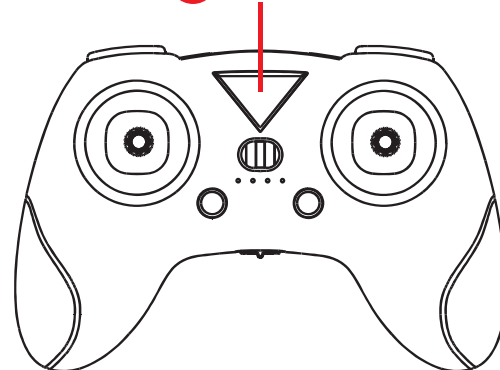**Only in case of special circumstances, the advanced mode is needed.**

1.Re-frequency alignment of aircraft
In some cases, there may be situations where the remote control and aircraft cannot be turned on and connected normally. At this time, it is necessary to re-align the remote control with the aircraft. For example, replacing new electronic components during maintenance;, or replacing the remote control etc.
The frequency alignment steps are as follows:
Turn on the power switch on the remote control, and the mode indicator light will show in "red".
Connect the power to the aircraft and use a screwdriver to press and hold the code alignment button at the bottom of the aircraft; The remote control emits a beep to indicate successful code aligning, and the mode indicator light turns on "blue".

Alignment Button
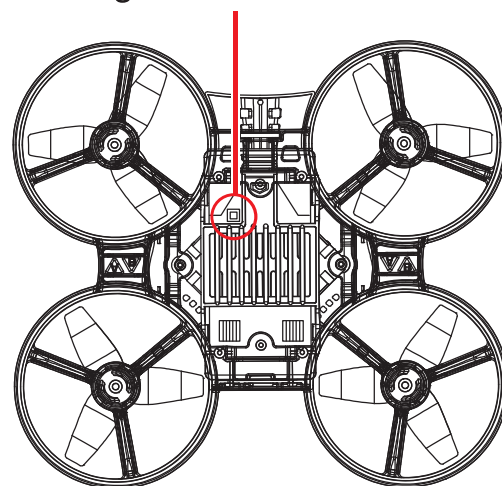
Note: After successful code alignment between the remote control and the aircraft, there is no need to repeat the above code alignment steps.

2.Horizontal calibration of aircraft
After multiple takeoff and landing, there may be a problem of gyroscope data deviation, manifested as the aircraft tilting towards a single direction after flying. At this time, the aircraft can be calibrated for gyroscope data.
The calibration steps are as follows:
(1) When calibrating the aircraft, it must be placed on a horizontal surface.

(2) After successful frequency alignment, move the throttle lever to the bottom right corner and the direction lever to the bottom left corner. At this time, the aircraft indicator light flashes, and calibration is successful when the indicator light remains on.

7. End the flight

1. Slowly lower the throttle to the lowest position and land the aircraft slowly.

2. Turn off the aircraft first, and then turn off the remote control.

3. If you do not play with this product for a long time, you must remove the battery.

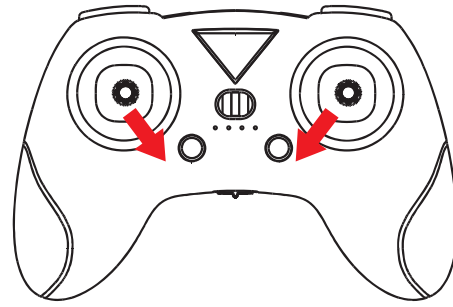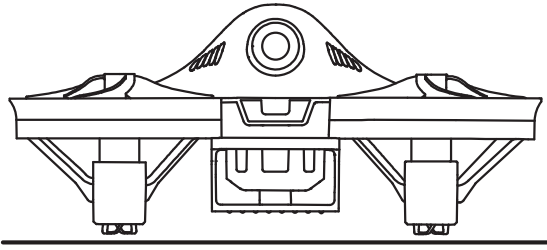4. Please clean this product with a clean and soft cloth, avoid prolonged exposure to sunlight or heat, and stay away from water sources.

8.Common problems and solutions

How to change the blades
After impact of the aircraft, the blades may deform or fall off, and a backup blade needs to be replaced at this time. Firstly, it is necessary to use a blade extractor to remove the blade from the motor. When taking out the blade, it is important to hold the motor with your hands and not hold the frame protection ring. Forcing the blade can easily cause deformation of the frame protection ring.

After impact of the aircraft, the blades may deform or fall off, and a backup blade needs to be replaced at this time. Firstly, it is necessary to use a blade extractor to remove the blade from the motor. When taking out the blade, it is important to hold the motor with your hands and not hold the frame protection ring. Forcing the blade can easily cause deformation of the frame protection ring.

Forward blade
Blade B

B2

A2

Reverse blade
Blade A

A2

B2
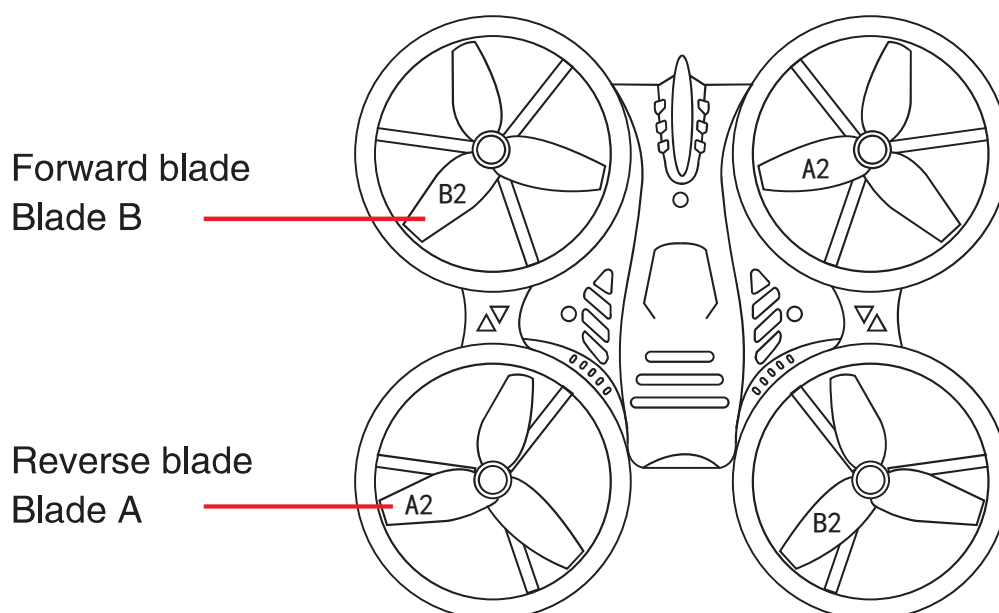
Problems	Reasons	Solutions
The light of the aircraft keeps flashing, and the operation is unresponsive.	Remote control and aircraft cannot successfully aligned.	Please re-align between the remote control and the aircraft again.
After connecting the battery, the aircraft has no response.	1. Check if the remote control and aircraft are connected and powered on. 2. Check if the remote control and aircraft battery have a low battery state. 3. Is the positive and negative poles of the remote control battery installed incorrectly or in poor contact.	1.Turn on the remote control switch and connect the aircraft battery 2.Using a fully charged and fully charged battery 3.Please install the battery in the correct installation direction and confirm whether the contact between the battery and the positive and negative electrode plates is normal.
When pushing the throttle, the main motor does not rotate and the indicator lights on the aircraft start to flash.	Aircraft in low battery status.	Charge the battery or replace it with another fully charged battery.
The main rotor of the aircraft continues to rotate but cannot take off	1. The blades are deformed or installed in the wrong direction. 2.Aircraft in low battery status.	1.Replace the blades, please install them in the correct direction. 2.Charge the battery or replace it with another fully charged battery.
The aircraft is shaking violently.	Blades deformation	Replace blades
The aircraft will move forward/backward/left/right after takeoff.	1. Gyro sensor data offset 2. Blades deformation	1.Perform horizontal calibration or restart of the aircraft. 2.Replace blades
Aircraft loses balance after falling and cannot take off.	Gyro sensor data offset	Perform horizontal calibration or restart of the aircraft.

FCC COMPLIANCE STATEMENT:
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction