Bugs 18 Pro

User Guide

EIS　4K UHD LENS

3 Axis Gimbal

Content

Product Description

Introduction

Bugs 18 Pro are equipped with optical flow system and GPS, can hover and fly steadily indoor and outdoor. They have automatic return home and easy-to-use intelligent flight, such as Orbit Flight, Follow-Me and Waypoint Flight. With the high-precision 3 axis anti-shake gimbal, the aircraft can shoot stably 4K high-definition video.

The transmitter with functional buttons can complete various operation and setting of the aircraft and camera. Through the App, not only have real time HD image but also flight parameters information. The folding design of transmitter improves the user operation experience. The pull-out phone holder is easy to carry and store for the user. The gimbal can adjust the camera shooting angle during flight. The maximum flying speed of Bugs 18 Pro is 40km/h.

Prepare the Aircraft

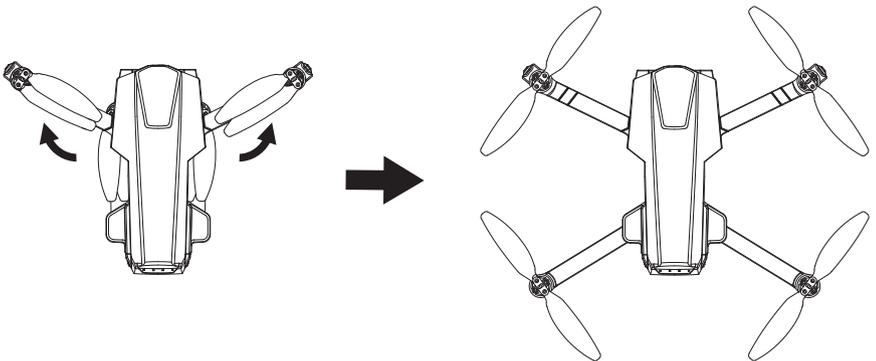### Disassemble the gimbal protection lock

Pull out the protective cover of gimbal camera.
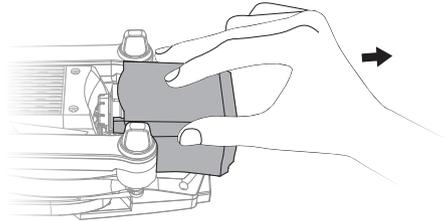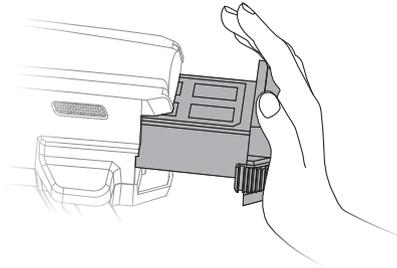
Expand the arm

The aircraft is in folding state during shipping, please unfold it according to below instruction.
1. Expand the front arm out Firstly.
2. Use the same method to unfold other arms.

Install aircraft's battery

Push the battery into the aircraft's battery box, check and make sure that the battery is installed accurately.

⚠️ Reminder: If the battery is not installed properly, it may cause the aircraft to fall down due to power failure.

Prepare the Transmitter

Charge the transmitter

When the transmitter is charging, the power indicator light of transmitter flashes slowly and stays on after it's full charged. The charging time is about 90 minutes. Before flight, please charge the transmitter fully. Please note have to use the official charging cable to charge.

Power indicator light

5V 2A Adapter
(Not included)
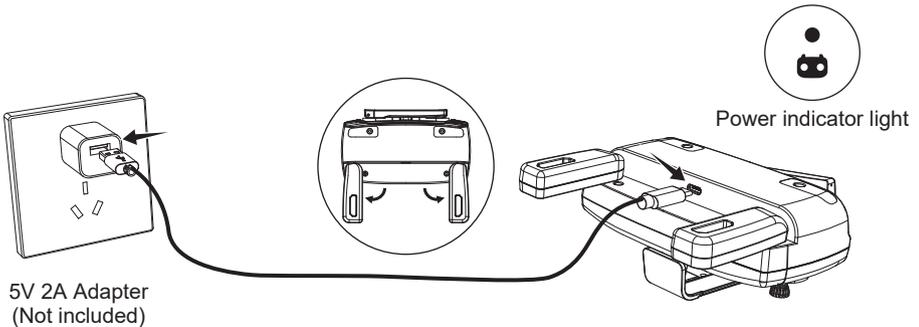
Parts Name
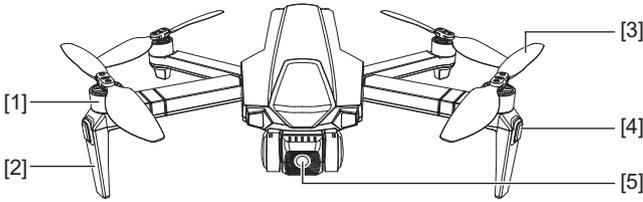
[1] Brushless motor

[2] Landing gear

[3] Propeller

[4] Front light

[5] Camera
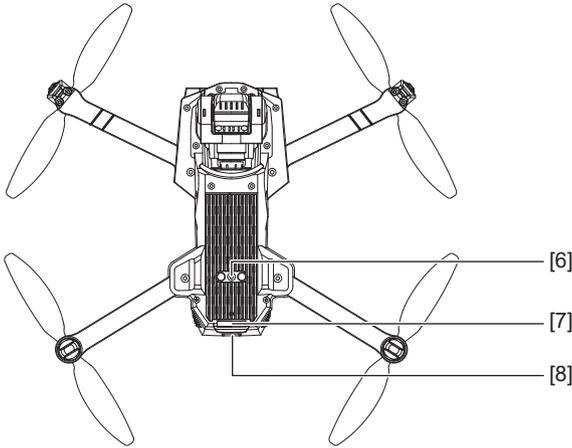
[6] Optical flow system

[7] Rear light

[8] Power switch

[1] Transmitter status indicator light

[2] One key to take off/ landing

[3] Left joystick

[4] One key to unlock/ Lock

[5] Phone holder

[6] One key return home

[7] Right joystick

[8] Power switch

[9] Mode switch

[10] —
[11] —
[12]

[10] Gimbal control hand wheel

[11] Take picture

[12] Take video

Status indicator light

⚠ 4 Lights flashing in turn: Matching code

●   ●   ●   ●

🎮 Transmitter power indicator light	
Stays on	Transmitter in good situation/ fully charge
Flashes slowly	Low transmitter's battery/ charging

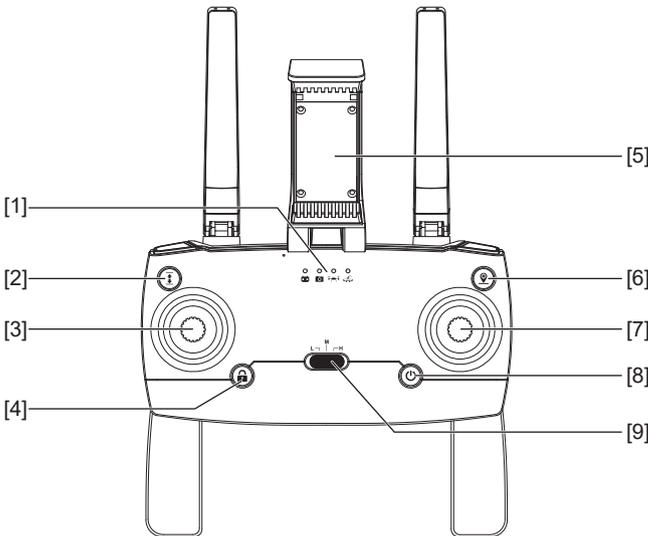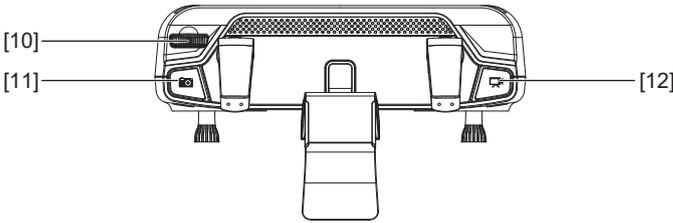| 📷 Camera indicator light	
Stays on	Camera doesn't work
Flashes once	Take a picture successfully
Continuous slow flash	Taking video

Drone indicator light	
Stays on	The connection between the transmitter and drone is good
Stays off	The transmitter and drone doesn't connect
Flashes slowly	The drone has low battery
Flash fast	The drone has lowest battery

GPS indicator light	
Stays on	The signal of GPS is good
Stays off	The drone exits the GPS mode or the signal of GPS is weak
Flashes slowly	The drone is returning home

Flight mode switch

M
L ┐ │ ┌ H
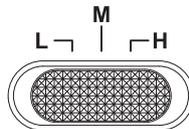
L : Video mode (Speed ≤4m/s)
M: Standard mode (Speed ≈7m/s)
H: Sport mode (Speed ≥10m/s)

Aircraft

Flight Mode

The following flight modes are available in Bugs 18 Pro.

GPS mode

In GPS mode, the aircraft achieves precise hovering by receiving GPS signals. If the GPS signal is weak, the aircraft will enter Fix-Altitude Mode or Optical Flow Position mode.(Please refer to the status bar for specific status in App.)
When the GPS signal is week, please land to safe place immediately avoiding any accidents. In the same time, please avoid flying in any weak GPS signal or narrow space, lest flight accidents.

Optical flow position mode

If it cannot receive the GPS signal or the GPS turned off, the aircraft will enter the Optical Flow Position mode automatically. In this mode, the aircraft can hover stably by optical flow system.
The applicable flight height of Optical Flow Position is 3 meters. The position effect will gradually weaken if the height is higher than 3 meters. Recommend not to exceed a flight altitude of 3 meters.

The Status Indicator Light of Aircraft

The front indicator light

The front indicator light

The rear indicator light
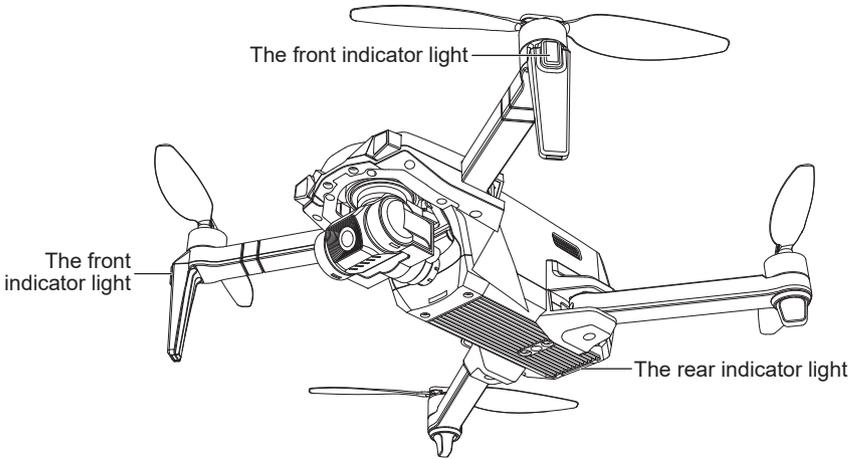
The status indicator light reminder

No.	Indicator light status	Meanings
1	The front indicator light stays on.	Connecting.
2	The rear yellow indicator light flashes quickly.	The aircraft and transmitter have not connected.
3	The rear yellow indicator light stays on.	No GPS signal.
4	The rear green indicator light stays on.	Good GPS signal, available to enter into GPS mode.
5	The rear green indicator light flashes quickly.	The aircraft is in gyroscope calibration.
6	The rear yellow indicator light flashes slowly.	The aircraft is in geomagnetic horizontal calibration.
7	The rear green indicator light flashes slowly.	The aircraft is in geomagnetic vertical calibration.
8	The rear red indicator light flashes slowly.	The aircraft is close to low battery, only 20% power left.
9	The rear red indicator light flashes quickly.	The aircraft is in low battery, only 10% power left.
10	The rear red indicator light flashes once, then stop 1.5 seconds.	The gyroscope has a malfunction.
11	The rear red indicator light flashes twice, then stop 1.5 seconds.	The barometer has a malfunction.
12	The rear red indicator light flashes three times, then stop 1.5 seconds.	The compass has a malfunction.
13	The rear red indicator light flashes four times, then stop 1.5 seconds.	The GPS has a malfunction.
14	The rear red indicator light flashes six times, then stop 1.5 seconds.	The optical flow module is faulty.

Return Home Automatically

Bugs 18 Pro are equipped with return home automatically. It include one key to return home, return home in low power and out of control.

The aircraft has recorded the home point successfully. In good GPS signal, when the user turns on the one key return, return home in low power, return home in out of control for disconnection between transmitter and aircraft, the aircraft will fly back to home point and land automatically

📖	Return-home indicator light	Description
Home point	⌂	Before flight or during flight, when the ⌂ indicator light of transmitter stays on at first time, the current place of drone will be remarked as home point, the indicator lights of drone will turn yellow to green. (If the satellite signal is good, this home point will be used in next each flights)

One key to return home

When the GPS signal is good, you can press "⚲" button to start the return home. In return-home, press "⚲" , the return home will be canceled, you will get the flight control right again.

Return home in out of control

When the GPS signal is good, the compass situation is good, if the signal of transmitter is interrupted for more than 6 seconds, the flight control will take over the control of the aircraft and control the aircraft fly back to the home point. If the transmitter signal is restored during flight, the return home will continue, while the user can cancel it by the return home button on transmitter, get back the aircraft's control right.

⚠ Notice for return home:
- In Return Home, the aircraft will fly straight to the home point, cannot avoid the obstacles. Please pay attention to it.
- When the GPS signal is week or not working, it cannot return home.
- In return home, if the flight altitude is higher than 15 meters, the aircraft will perform the return home immediately, otherwise, the aircraft will raise up to 15 meters, then perform the return home (In App, the return altitude can be setting).
- If the aircraft does not get the GPS signal, in the same time, the signal of transmitter has been interrupted for more than 6 seconds, the aircraft will not be able to return home, it will descend slowly until landing, then will be locked.
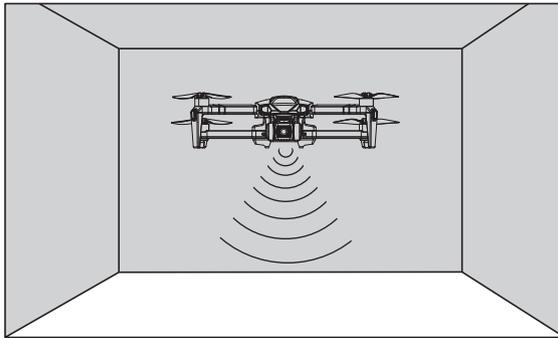
Optical Flow System

The optical flow system is composed of optical flow lens modules. It is an image positioning system that locating the aircraft by optical flow images. It ensures the accurate positioning and safe flight of the aircraft.
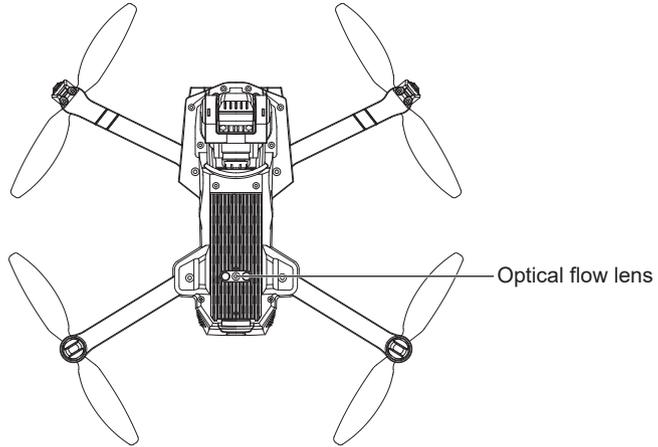
Optical flow lens

Usage requirements of optical flow positioning function

It is suitable for environments where the altitude is below 3 meters, there is no GPS signal or the GPS signal is weak.

⚠ The measurement accuracy of the optical flow system is easily affected by the light intensity and the surface texture of the object. Once the optical flow failure, the optical flow positioning mode will automatically switch to fixed altitude mode. Please be cautious in as following situations:
  1. When flying fast at low altitude (below 0.5 meters), the optical flow system may not be able to locate.
  2. Monochrome surface (such as pure black, pure white, pure red, pure green).
  3. Surfaces with strong reflections.
  4. Water surface or transparent surface.
  5. Surfaces of moving objects (such as, the upside of crowds, the swaying bushes or grasses).
  6. Scenes with dramatic and rapid light changes.

7. Surface extremely dark (Lux<10) or extremely bright (Lux>10,000).

8. Very sparsely textured surface.

9. Surfaces with highly repeating textures (such as small grid brick in the same color).

10. Surfaces that are tilting over 30 degrees.

11. Flying speed should be controlled not too fast. When the aircraft altitude is 1 meters, the flying speed should not be over 5m/s; When the aircraft altitude is 2 meters, the flying speed should not be over 14m/s.

● Please ensure that the optical flow lens is clear.

● The optical flow system is only effective within the altitude less than 3 meters.

● Since the optical flow function system relies on ground surface to obtain location information, please ensure that the surrounding environment has sufficient light sources and rich texture ground.

● The optical flow system cannot be positioned on the water surface, in extremely dark environment and no clear texture ground.

● If the light is dim, please turn on the optical flow fill light.

Gimbal Camera

Gimbal description

The 3-axis gimbal provides a stable platform for the camera, so that the camera can shoot stable images even the aircraft is flying at high speed. The pitch angle can be adjusted by the transmitter's gimbal hand wheel, also can be adjusted by the button on the App camera interface.
The default gimbal pitch angle is -75° to 0°.

0°

-75°
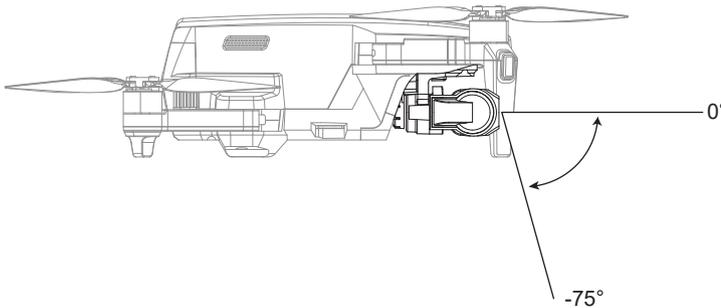
⚠ ● Please place the aircraft on a flat and open ground before takeoff, do not touch the gimbal after the power turned on.

● The gimbal contains precision parts. If it is hit or damaged, the precision parts will be damaged, which may affect the performance of the gimbal. Please take good care of the camera gimbal, keep it from physical damage.

● Please keep the gimbal clean, keep the gimbal from contacting objects such as sand and rocks. Otherwise, the movement of the gimbal may be blocked and affect the performance.

● If the aircraft is placed on uneven ground or grass, when the object on ground hits the gimbal, or the gimbal is subjected to excessive external force (such as being hit or being blended) may cause the motor abnormal.

● Do not add any objects on the gimbal camera, otherwise it may affect the performance even cause the motor burned.

Power Switch of the Aircraft

Long-press the power button for 3 seconds, the aircraft will turn on. In the same time, the aircraft will have power-on sound and indicator light stays on. Long-press the power button for 3 seconds again, the aircraft will turn off and indicator light will turn off.
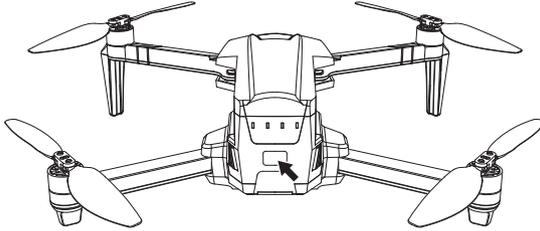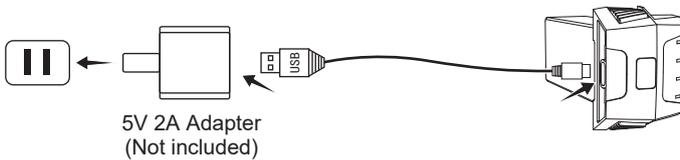
Aircraft Battery

The Bugs 18 Pro is equipped with High Energy Battery. The capacity of the battery is 2950mAh and the rated voltage of 7.7V.

Charging

Please charge the battery fully before using it. Be sure you use the officially supplied USB charging cable to charge. The charging time is about 4.5 hours.
●Charging: The battery indicator light will flash in turns;
●Fully charge: The battery indicator will stay on.
*The above charging data is based on 5V 2A adaptor. Using the different adapter will affect the charging data. Recommend using 5V 2A-2.1A adapter to charge.

5V 2A Adapter
(Not included)

⚠ ● Please charge the battery under adult supervision. Do not let children to charge it alone. Keep away from flammable materials when charging, pay attention on the aircraft, do not leave it beyond your monitoring range.
● Please do not make the battery short-circuit or squeeze the battery to avoid explosion.
● Forbid to take the power cord out from the aircraft. Do not make the power cord short-circuit. Forbid to make the battery short-circuit, disassemble or throw into fire. Do not put the battery in high temperature or near heated places (such as fire or electric heating devices).
● Please check the charger's power cord, plug, shell and other parts regularly, if any damage, please fix first.
● Please use the charger indoor only.
● After the flight, please charge the battery to half full then store. If no use for long time, recommend to use out and recharge the battery once per month, lest the battery damaged for over discharge.
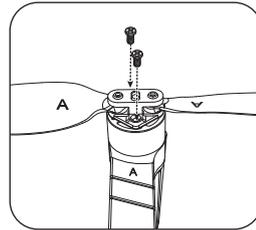
Assemble & Disassemble the Propellers

Assemble/disassemble the propellers

●Assemble

Select corresponding propellers, (A and A, B and B), use screwdriver to fix the 2 screws clockwise (as pic 1-2).
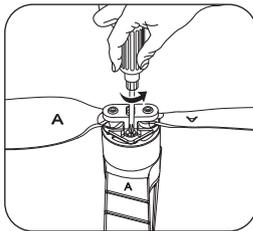

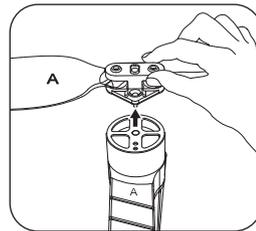Motor A

Align holes in the bottom
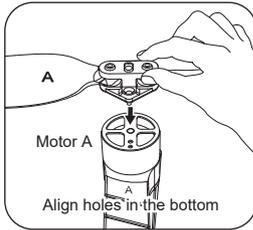
Pic. 1

Pic. 2

●Disassemble

Turn screwdriver anti-clockwise, take out 2 screws then pull out the propellers (as pic.3-4).

Pic. 3

Pic. 4

⚠ ● Please ensure that the clockwise and anti-clockwise propellers are installed correctly, otherwise the aircraft cannot fly.
● As the propeller is thin, please be careful during installation, lest any accidental scratches.
● Please use the official propellers.
● Propellers are consumable, if necessary, please purchase accessories separately.
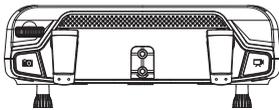
Transmitter

Function&Situation of Transmitter

Photo/Video

Short press " 📷 " button, the camera indicator light will flash twice, that means picture has taken successfully.
Short press " 📹 " button, the camera indicator light will flash slowly, that means the drone enters into video mode already, press the " 📹 " button again to exit the video mode.


⚠   Tips: The HD Photos and videos cannot be saved without TF Card.
       If TF Card is in errors, the drone cannot take picture/video.

One-key takeoff/landing

After the Bugs 18 Pro unlocked, short-press the " ⬍ " button, the aircraft automatically take off and hover at 1.5m altitude.
When the aircraft is flying, short-press the " ⬍ " button, the aircraft automatically land on the ground.
In landing automatically, press any joystick, the aircraft will exit the mode.
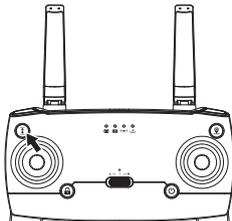

Unlock/lock the aircraft

Unlock the aircraft
Short press the " 🔒 " button in transmitter, the motor starts and the aircraft is unlocked.

Lock the aircraft
Method 1: After the aircraft landing, pull the throttle to the bottom and hold for 3 seconds. The motor will stop work and the aircraft will be locked.
Method 2: The aircraft will be locked automatically once no operation in 15 seconds after unlocked.
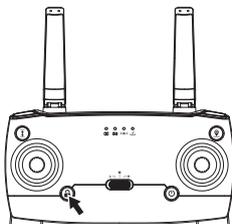
⚠   Emergency stop:
     ● When the aircraft is flying at a distance within 15 meters or altitude within 5 meters,
       press " 🔒 " for 3 seconds to stop the aircraft.
     ● The function is only for emergency, please don't use it in normal flight.
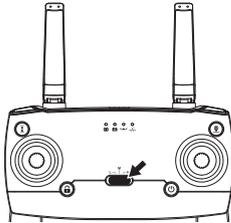
One-key return home

Press " 💡 " button, the buzzer emits a "beep" sound to start one-key return to home, the " ⌂ " indicator light flash slowly all the time, the drone will return to newest recorded home point.
Press the button again to exit the return home.
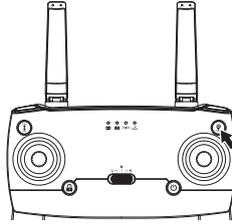
Mode switch

Toggle the mode switch of the transmitter to adjust the speed of the drone.

L : Video mode (Speed ≤4m/s)
M: Standard mode (Speed ≈7m/s)
H: Sport mode (Speed ≥10m/s)

Aircraft low battery warning

1. When the drone's red indicator lights turn on and flash slowly, the " 🚁 " indicator light of transmitter will flash slowly and the transmitter emits continuous "beep" sound, if the altitude of the drone is higher than 30 meters or distance is longer than 100 meters, the drone will return home automatically, fly back to home point.
2. When the drone's red indicator lights turn on and flash quickly, the " 🚁 " indicator light of transmitter will flash quickly and the transmitter emits continuous "beep" sound, if the altitude of the drone is higher than 15 meters or distance is longer than 15 meters, the drone will return home automatically, fly back to home point; if the altitude of the drone is lower than 15 meters or distance is lower than 15 meters, the drone will land in current flying place.

Transmitter low battery warning

The " 🔋 " indicator light flash slowly with continuous "beep" sound, that means the battery of transmitter is low.

Gimbal control handwheel

By toggling gimbal hand wheel on transmitter, the camera shooting angle can be adjusted to get a better aerial photography experience. When the wheel rolls to the A direction, the camera angle will be adjusted to the A direction; when the wheel rolls to the B direction, the camera angle will be adjusted to the B direction.
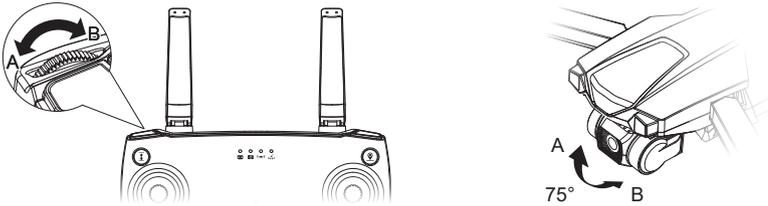
Transmitter communication range

Please keep the aircraft fly in front of the transmitter, there is not any obstacles between them.

Best communication range
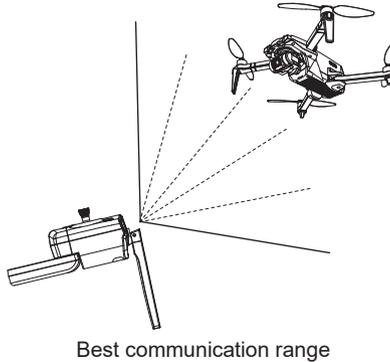
Assemble Phone Holder

1. Rotate the phone holder up 150° (Pic. 1);
2. Adjust phone fixing components, stretch up and down to adjust the size (Pic. 2).

Pic. 1

Pic. 2

X-Drone App
FPV Real Time Transmission Software

Scan code to download App

● For Apple iOS system, please search for "X-Drone" in App Store or directly scan the QR code to install.
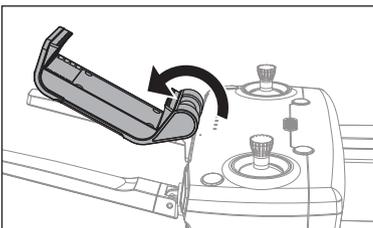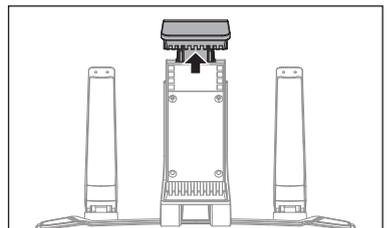● For Android phones, please scan the below QR code to install. (MJXRC.NET is an alternative download link)

 App Store

 Google play

 MJXRC.NET

Connection instructions

Enter the "Settings" option of the mobile phone, turn on the WIFI, find the name XDrone******* in the mobile WIFI search list, connect until the word "Connected" appears, indicating that the connection is successful and exit the setting options. Open the App on the phone.
(The starting time of transmitter is about 25-35 seconds, if the phone didn't search the Wi-Fi name, please wait few seconds and re-search Wi-Fi list again)
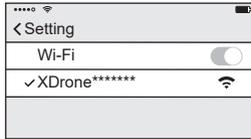
Connect WIFI

Photo/Video saving function

1. If the memory card is not installed, the video and photos will be saved in the phone App album.
   (This photo and video only have the quality of the image transmitted to the mobile phone)
2. If the memory card is installed, the video and photos will be saved to the memory card.
3. The videos and photos in the memory card can be downloaded to the mobile App.

Flight

Surroundings Requirements of the Flight

1. Do not fly in bad weather, such as strong wind, snow, rain, fog, etc.
2. Choose an open place without tall buildings around to fly. Buildings that use a lot of steel bars will affect the work of the compass and block the GPS signal, causing poor positioning of the aircraft or even unable to locate.
3. When flying, keep the aircraft in sight, stay away from obstacles, crowds, water, etc.
4. Do not fly in areas with high-voltage lines, communication base stations or transmission towers, avoiding interference with the transmitter.
5. When flying at the place whose altitude above 6000m, due to environmental factors, the performance of the aircraft battery and power system will decrease, and the flight performance will be affected correspondingly. Please fly with caution.
6. The aircraft cannot use GPS to fly in the north and south poles.

Flight restrictions and special area restrictions

According to the regulations of the International Civil Aviation Organization and the air traffic control of various countries on airspace control and the regulations of the management of drones, drones must fly in the specified airspace. For flight safety, the flight restriction function is turned on by default, including altitude and distance restrictions and special area flight restrictions, to help users use the aircraft more safely and legally.

Pre-Flight Inspection

1. Whether the transmitter, aircraft battery and phone are fully charged.
2. Whether the propelleres are installed correctly.
3. Whether the front and rear arms and propellers are fully unfolded.
4. After the power turned on, whether the camera and gimbal work.
5. Make sure the camera lens is clean.
6. Ensure to use official accessories or officially certified accessories. The non-official accessories may cause damage of the aircraft.

The Operation of Aircraft

Transmitter and aircraft signal matching
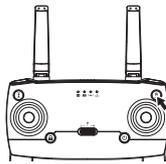
Press and hold for 3 seconds to turn on.	Press and hold for 3 seconds, the indicator lights flash in turn.	Press and hold for 3 seconds to turn on the aircraft.	stays on, code has matched.
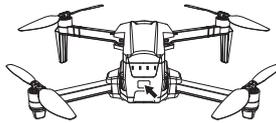
⚠ ● Usually don't need to match code, the drone can be operated to fly after turn on.

● If the transmitter or the drone has changed, then need to re-match code before flight.

● Please make sure there is no other transmitters or drones turning on during matching code, lest the code fails to match.

Gyro calibration

After the successful signal matching, place the aircraft on a horizontal ground. Push the left and right joysticks to the left bottom at the same time (as picture). At this time, the indicator light flashes fast, the gyroscope enters into the calibration state. When the indicator light changes from fast flashing to staying on, then calibration is completed.
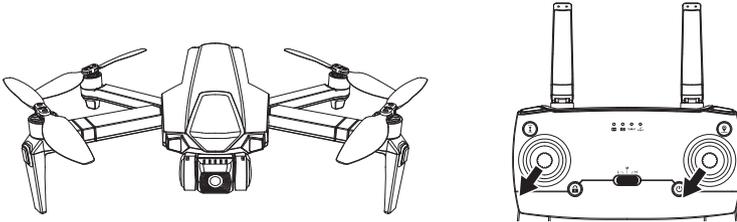

⚠️ ●In gyro calibration, the aircraft should be place on horizontal ground, otherwise will affect the flight performance.

●The gyroscope has been calibrated before shipping. The user does not need to calibrate it. This operation can only be operated when the flight status is not good.

Geomagnetic calibration

Before unlock the aircraft, please operate as picture to enter the geomagnetic calibration.
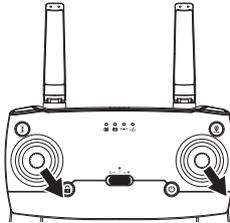
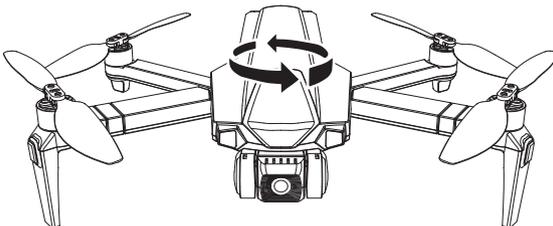## Two steps of geomagnetic calibration

Step 1: Horizontal Calibration

The front and rear indicator lights flash yellow alternately, means entering into the horizontal calibration.
Place the aircraft as below picture, rotate it horizontally for about 3 circles, until the indicator lights of the front and rear turn green alternately. In this time, the horizontal calibration is completed.

Step 2: Vertical Calibration

Place the aircraft's head up, like "stand up", as below picture, rotate the it about 3 circles until the front and rear indicator lights stay on. In this time, the geomagnetic calibration is completed.
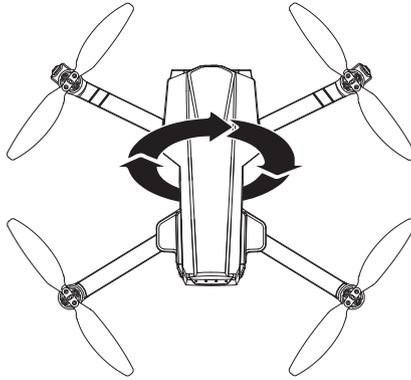
⚠ Reminder:
- Ensure that the flight place is open and the satellite signal is greater than 7 stars before take-off.
- In GPS mode, if the aircraft cannot hover at a fixed point or the fixing performance is poor, please re-calibrate the geomagnetic, it can improve the flight performance.

⚠
- Do not calibrate in areas with strong magnetic, such as magnetic mines, parking or building areas with steel bars under ground., etc.
- Do not carry ferromagnetic materials, such as keys, phones, etc. with you during calibration.
- Do not calibrate near large pieces of metal.

Transmitter operation

The default mode of transmitter is Mode 2. Left Joystick controls flight height, turning left/right. Right Joystick controls flight direction, forward, backward, left/right side flying.

Mode 1 operation: Left joystick controls forward, backward, turning left/right. Right joystick controls flight height, left/right side flying.
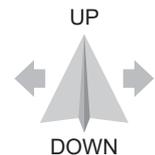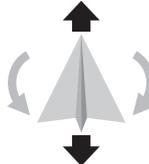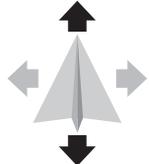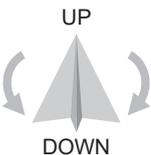
⚠ If you need switch the transmitter's mode, please open the App and switch it.

Basic Flight

The steps of basic flight

1. Place the aircraft on a flat and open ground with the user facing the rear of the aircraft.
2. Turn on the transmitter and the aircraft.
3. Match the signal of transmitter and aircraft, and complete the initialization of aircraft.
4. Open the X-Drone App, connect the phone to Bugs 18 Pro, and enter into the camera interface.
5. Unlock the aircraft.
6. Slowly push the throttle stick up, the aircraft take off smoothly, and control the aircraft with the left/right joystick.
7. Pull down the throttle stick to lower the aircraft.
8. After landing, pull the throttle stick to the lowest position and hold it for more than 3 seconds until the motor stops.
9. After stopping, turn off the aircraft and the transmitter in turns.

Photograph tips and skills

1. Do a pre-flight inspection.
2. Select the appropriate gimbal camera angle
3. Fly and take photo in a good weather without wind.
4. Do a test flight, helping to make a plan of route and find a place to take view.
5. Push the joystick as slow as possible during the flight, making the aircraft fly smoothly.

The flight safety is very important for you, the surrounding people and the environment. Please read the "User Guide" carefully.

Appendix

Aircraft Specification

Aircraft	
Weight (The Battery and Propellers Included)	Bugs 18 Pro: about 400g
Dimension	Fold: 165*90*70mm (L*W*H) Unfold: 355*305*70mm (L*W*H)
Diagonal	265mm
Maximum Ascent Speed	3m/s
Maximum Descent Speed	2m/s
Maximum Speed	40km/h
Flight Height Limitation	120m
Maximum Tilt Angle	35°
Maximum Rotational Angular Speed	45°/s
Operating Temperature Range	0℃-40℃
Satellite System	GPS & GNSS
Hovering Accuracy Range	Indoor: ±0.3m Vertical ±0.3m Horizontal Outdoor: ±0.5m Vertical ±1.5m Horizontal
Transmission Power (EIRP)	24dBm
Gimbal	
Gimbal Type	3 axis
Gimbal Adjust Range	0° to -75° (Manual Adjust in Transmitter)
Roll Servo Range	-30° to 30° (Auto)
Heading Servo Range	-30° to 30° (Auto)
Camera	
Basic Information	4K EIS 5G WIFI Camera
Image Sensor	1/3 inch CMOS
Lens	View Angle: approx.120° Aperture: f/2.0 Focal Length: 2.96mm
ISO Range	Photo: 100-3200 (Auto) Video: 100-3200 (Auto)
Electronic Shutter Speed	1/30s-1/10000s
Maximum Photo Size	3840x2160
Photo Shooting Mode	Single Shot
Video Resolution	3840x2160
Color Mode	RGB
Maximum Video Stream	Video 50Mbit Transmission 2Mbit
Support File System	FAT32

Local Video Frame Rate	3840x2160@30FPS
Maximum Transmission Frame Rate	720P@30FPS
Image Format	JPEG
Video Format	MP4, Compressed Format H.264
SD Cards	Micro SD Card, Maximum Support 128GB Capacity Expansion, Class 10 and Above
Working Temperature	0℃-40℃
Transmitter	
Capacity	2000mAh
Voltage	3.7V
Max Transmission Distance	3000m
Working Temperature Range	0℃-40℃
Charging Time	90 minutes
Charging Method	Type C Charging Cable
Transmission Power (EIRP)	2.4GHz≤12dBm 5GHz<24dBm
Working Current/Voltage	600mA@3.7V
Aircraft Battery	
Capacity	2950mAh
Voltage	7.7V
Battery Type	Li-po
Power	22.715Wh
Weight	about 113g
Charging Temperature Range	5℃-40℃
Charger Input	5V/2-2.1A
Charger Power	10W (Max)
Charging Time	270 minutes
Charging Method	Type C Charging Cable
App/FPV Real Time Transmission	
App Name	X-Drone
Transmission System	2.4GHz/5GHz WIFI (802.11n)
Real Time Transmission	720p@30fps
Delay Time	200-300ms
The System Version Requirements of the Phone	iOS 9.0 or Higher Android4.4 or Higher

Important Statement

- This product is not a toy, but a precision device that integrates professional knowledge of machinery, electronics, aerodynamics, and high-frequency emission. It requires proper installation and debugging to avoid accidents. The product holder must use a safe way to operate and control. Otherwise, it may cause serious personal injury or property damage.
- This product is suitable for people who have experience in operating model aircraft and at least 14 years old.
- If any problems with use, operation, maintenance, etc., please contact your local dealer or relevant personnel of our company. Our company and the seller are not responsible for any loss and damage caused by improper use or operation, as well as human injury.
- The product contains small parts, please keep it out of the reach of children to avoid the risk of ingestion or suffocation.

Safety Precautions

The remote control model aircraft is the most dangerous commodity, please keep it away from the crowd when flying. Improper assembly or damage to the aircraft body, poor electronic control, and unfamiliar operation may cause unpredictable accidents such as aircraft damage or personal injury. Operators must pay attention to flight safety and understand their responsibility for accidents caused by their own negligence.

● Stay away from obstacles and people
The remote control aircraft has an uncertain flight speed and state during flight, is potentially dangerous. When flying, please stay away from crowds, high-rise buildings, high-voltage power lines, etc., and avoid flying in bad weather such as wind, rain, and lightning. Debugging and installing the aircraft must strictly follow the operating instructions. Pay attention to keeping the aircraft at a distance of 1-2 meters away from the user or other people during flight, to avoid the aircraft from crashing into the head, face and body of the person when flying or landing, causing injury .

● Keep away from humid environment
The inside of the aircraft is composed of many precision electronic components and mechanical parts. Therefore, it is necessary to prevent the aircraft from getting wet or moisture into the body, avoiding accidents caused by mechanical and electronic component failure. Please wipe the surface stains with a clean cloth during maintenance.

● Practice flying together with skillful pilot
There is a certain degree of difficulty in the early learning of remote control aircraft control skills.
It is necessary to avoid flying alone, be guided by an experienced person.

● Use this product properly
Please use MJX original parts for installation or maintenance to ensure flight safety. Operate and use within the scope permitted by the product function, and must not be used for other illegal purposes.

● Safe Operation
1. Please operate the remote control aircraft according to your own flying skills. Fatigue, poor spirits or improper operation will increase the probability of accident risk.
2. Do not use it near your ears! Misuse may cause hearing hurt.

● Keep away from high-speed rotating parts
When the aircraft propellers are rotating at high speed, please keep the pilot, surrounding people and objects away from the rotating parts to avoid danger and damage.

● Keep away from heat source

The remote control aircraft is composed of metal, fiber, plastic, electronic components and other materials. Therefore, it is necessary to keep away from heat sources, avoid deformation or even damage due to high temperature.

● Environmental protection requirements

Discard the product at will, which may affect the environment. Please recycle it properly according to local laws and regulations.

CE

PLEASE RECYCLE

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