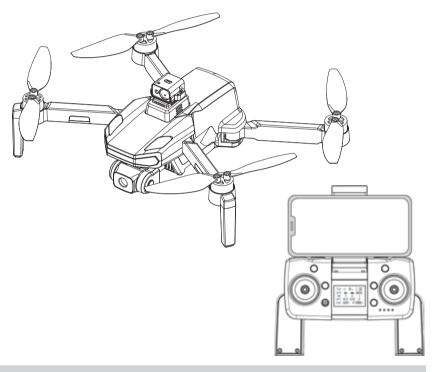


# 3-AXIS GIMBAL GPS AERIAL DRONE OPERATING INSTRUCTIONS



#### Safety precautions:

- 1 In order to ensure the electromagnetic environment requirements of aviation radio station, it is prohibited to use various model remote controllers in the area with the center point of airport runway as the center point and the radius of 5000M. During the period when the relevant departments of the state issue radio control orders and regional areas, the use of model remote controllers shall be stopped as required. Please fly in warm, clear, windless weather. Do not fly in severe weather conditions such as overheating, overheating, strong wind, rainstorm, etc. Please choose indoor or outdoor open area, and keep a safe distance from people, pets, empty overhead wires and other obstacles. Make sure that no other uses the same frequency. Do not let the aircraft out of sight.
- 2 After the aircraft is started, please avoid contact with the high-speed rotating parts of the aircraft and maintain a safe distance from the high-speed rotating propeller to avoid the risk of injury.
- 3. During and after the use of the aircraft, the battery and motor will generate high temperature. Please do not touch it to avoid the risk of scalding.

Warm Tip: It is recommended that beginners practice flying at a low altitude in an open and unoccupied area for about three days before attempting high-altitude flights

#### Pre-flight preparation

#### flight environment







indoor: Spacious space away from obstacles, crowds or pets are preferred.









Please keep the UAV within your line of sight and away from obstacles, high-voltage cables, trees and people during the flight.







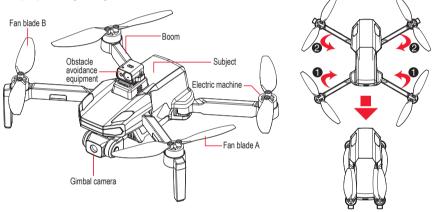
Outdoor: Sunny, windy and sunny weather are preferred.







Do not fly in extreme environments, such as heat, cold, strong wind or heavy rain.



#### **Blade replacement:**

- 1. The fan blade to be replaced must be replaced corresponding to the relative position on the machine. Fan blade A needs to be installed at position A, and fan blade B needs to be installed at position B. If fan blade is replaced incorrectly, it can not be controlled.
- 2. When flying, the fan blade A rotates clockwise, and the fan blade B rotates counterclockwise.

#### 1. Important note

This product is not a toy, wrong use will cause damage.

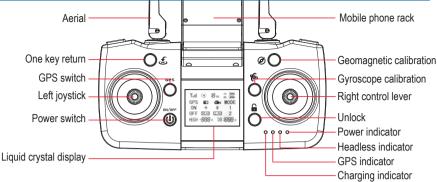
Please follow the instructions before using this product. Do not disassemble the product yourself. Otherwise, the manufacturer is not responsible for any damage.

#### Safety instructions

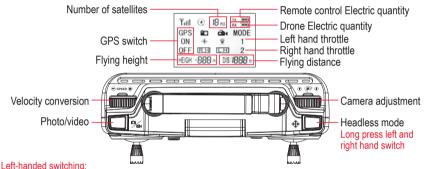
Warning: It is necessary to fly in a safe area or away from others. Do not operate the aircraft above a dense crowd. Due to the pilot's operation error or wireless interference during operation, accidents and failures can easily occur, leading to damage or injury to people. Prohibition: Especially for indoor and outdoor flight, please keep away from obstacles This product is suitable for both indoor and outdoor flight (wind strength not more than 4). Please select a location free from obstacles, crowds, pets, and pedestrians. Ensure there are no heating sources, electrical wires, or electronic power sources that could potentially collide with the drone during landing, cause entanglement, or pose risks of fire, electrocution, and damage to life and property.

Warning: Since this product is mainly suitable for people over 14 years old, initial learning may pose some challenges, we recommend \ you to ask an experienced pilot for guidance.

### Remote control function key and name Description:

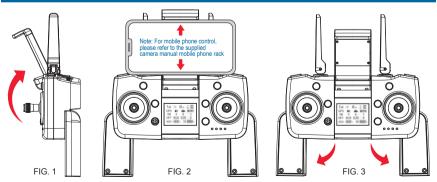


Note: When the satellite cannot be found indoors or outdoors, and if the GPS needs to be turned off to start the aircraft, press and hold the GPS key for 3 seconds. The remote controller will beep, and the display screen of the remote controller will show "GPS OFF." At this point, press the unlock key, and the aircraft's wings will start to rotate, ready for takeoff.



Default left-handed throttle, long press "left-handed switching key" before linking to switch to right-handed throttle.

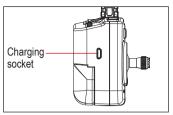
#### Instructions for remote control handle/mobile phone rack:

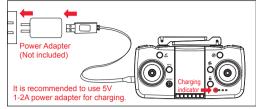


Lift the mobile phone rack in the middle of the remote controller upward (FIG. 1), and stretch upward to place the mobile phone (FIG. 2).

Remote control handle: Pull the bottom handle of the remote control down from the middle position and rotate it into place(FIG. 3).

#### Instructions for charging controller:

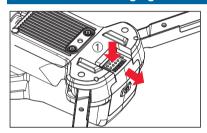


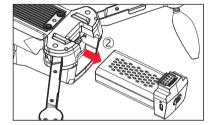


Insert the charging plug of the charging wire into the charging socket of the remote controller, and then connect the USB charger plug to the computer or mobile phone charger for charging. When charging, the charging indicator lights up, and the indicator lights out after full charging. (Charging time is about 60 minutes)

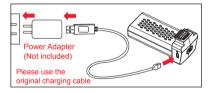
Note: If the charge indicator does not change during charging, this indicates that the battery is fully charged and does not need to be recharged.

#### Instructions for charging drone lithium battery:





Take out the drone battery: Hold down the position shown in Figure 1, and pull it back to take out the battery.



#### Battery charging steps:

Please use the original charging cable provided in the package to connect the USB charger plug to the computer or mobile phone charger. When charging, the red light on the Android plug on the battery is on, and the red light is off and the green light is on when it is fully charged. (Charging time is about 120 minutes) It is recommended to use 5V 1-2A power adapter for charging.

Note: If the battery is plugged into the charger and the Android headlight on the battery is on, no recharging is required.



- When charging the rechargeable battery, do not allow children to use it alone. Charging should be conducted
  under adult supervision and kept away from flammable materials. The guardian should ensure the aircraft
  remains within sight during charging.
- Do not short circuit or squeeze the battery to avoid explosion.
- The power supply terminals should not be taken out of the model, and the terminals should not be short-circuited; do not short-circuit, disassemble or exposing the battery to fire; do not place the battery in high temperature and heat places (such as in a fire or near an electric heating device).
- The model can only use the recommended charger. Regularly check the charger's wires, plugs, shells and other parts for damage. If you find any damage, stop using it until the repair is complete.
- The charger is not a toy; the charger can only be used indoors.
- The battery must be charged and stored after the flight. If not in use, it is recommended to charge the battery at least once every 3 months to avoid over-discharging the battery and permanently damaging the battery.

#### Pre-flight environmental requirements:

Please choose an open indoor or outdoor environment without rain and snow and wind force less than Level 4 to fly. Please stay away from people, trees, electric wires, tall buildings, airports and signal transmission towers when flying.

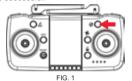
#### **UAV** flight tutorial:

#### 1. UAV frequency and gimbal calibration

Put the drone on the horizontal ground and turn on the power, then turn on the remote control power, at this time the lights on the aircraft flashes quickly, the lights on the remote control flashes. Then push up the left joystick of the remote control and pull down. You will hear three beeps from the remote control. At this time, the front and back lights on the UAV will change from slow flashing before and after to alternate slow flashing, indicating that the pairing is successful. After the linking is successful, it will be automatically calibrated for about 30 seconds, and the gimbal will automatically return to a level state, and the calibration will be successful. (After the second frequency comparison after calibration at the same position, the headlight flashes slowly. Then, the lamp remains lit for an extended period, indicating that it has entered the star search state directly.

#### 2. Geomagnetic calibration operation

As the geomagnetic field is easy to be interfered by other electronic devices, which leads to abnormal data and affects the flight. Therefore, it is necessary to calibrate the ground magnetism for the first time. Please follow the steps below to calibrate the ground magnetism and press the remote control (Figure 1) button for 3 seconds. You will hear a beep sound from remote control and the drone light will change from slow to fast flashing, then you can calibrate it. Hold the UAV in your hand, press (Figure 2) to slowly rotate clockwise for 3 turns in the horizontal direction, the indicator light on the UAV changes from flash to slow flash. You will hear a beep sound from remote control, indicating that the horizontal Calibration is successful. At this time, it can be carried out in the vertical direction (Figure 3). The nose slowly rotates clockwise for 3 turns downward, the red indicator light on the rear of the UAV slowly flashes and becomes normally on. You will hear a beep sound from remote control to indicate that the calibration is successful.

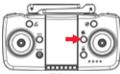


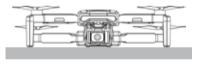




3. Gyroscope calibration operation (Must be calibrated before takeoff)

Place the UAV in a horizontal position, press and hold the "gyroscope calibration" button on the remote controller (Figure 4), and press and hold for 3 seconds, the UAV light flashes slowly, and you will hear a beep sound from remote control.





4. Search for GPS signals:



Following a successful calibration, the green indicator light at the front of the UAV blinks slowly, while the red indicator light at the rear remains constantly illuminated. Place the UAV in a horizontal position for approximately 30 seconds. During this time, observe the green indicator light at the front of the aircraft transitioning from a slow flash to a steady glow. Additionally, ensure that the remote control displays more than 8 satellites. You will hear a beep emitted from the remote controller, indicating a successful star search. Once confirmed, press and hold the "unlock button" depicted in Figure 5 on the remote controller to initiate flight.

#### Special note:

- Once the calibration of the UAV is completed, place the UAV horizontally in a wide outdoor space. The green light in front of the aircraft will flash slowly. Wait for about 30 seconds until the green light on the UAV fuselage becomes steadily on, and emits a been to indicate that the star search is successful.
- 2. Please take the drone to an open area for calibration.
- 3. The longitude and latitude of each region are different, New customers must calibrate the geomagnetism for the second takeoff. For example, the difference between Guangdong and Beijing is 28 degrees. Therefore, non-calibration shows that forward and backward flight is not a straight line flight. Calibration is for the accuracy of the barometer's height measurement.

#### Remote controller Video picture shooting instructions:



Remote control video key, gently press to take photos, long press to record. The drone has an SD card slot.

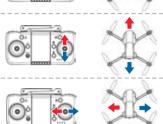
#### **Manipulation method**



When the left lever (accelerator) is pushed upwards, the speed of the main wind blade increases and the aircraft goes up. When the left lever (accelerator) is pushed downward, the speed of the main wind blade slows down and the aircraft descends



When the left lever (rudder) is pushed to the left, the aircraft head turns to the left, when pushed to the right, and the head turns to the right.



When the right lever (rudder) is pushed up, the aircraft goes forward.

When the right lever (rudder) is pushed down to

When the right lever (rudder) is pushed down, the aircraft goes backward.

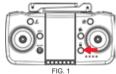
When the right lever (rudder) is pushed to the right, the aircraft flies to the right.

When the right lever (rudder) is pushed to the left, the aircraft flies to the left.

Warning: When the drone is 30 cm above the ground, it becomes unstable due to the influence of its own blade eddy current, known as the "ground effect reaction." At lower heights, the impact of the ground effect reaction is most significant.

#### Operation description of remote control function:

#### 1. UAV unlock



When the drone has successfully positioned itself outdoors, the drone needs to be unlocked to start, press and hold the remote control.

Press the "unlock" button (Figure 1). At this time, the four propellers rotate at

the same speed, indicating that the unlocking is successful.
When the unlocking is completed, the UAV can operate and fly normally.

#### 2. speed gear adjustment



The take-off speed gear of the UAV defaults to slow gear. When the UAV is in the air, the speed gear can be adjusted using the knob (Figure 2). Rotating the speed knob to the right makes the remote controller beep twice, indicating that it has entered the second gear. Further rotating the knob to the right makes the remote controller beep three times, indicating that it has entered the third gear high-speed mode. Conversely, turning the knob to the left indicates entry into the second gear and then the first gear low-speed mode.

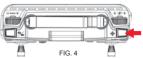
#### Camera angle adjustment





The angle of the camera can be adjusted through the camera adjustment knob (Figure 3) during UAV flight. Turning the knob to the right decreases the camera angle, while turning it to the left increases the camera angle.

#### 4.headless mode



Place the UAV directly in front of the remote controller, with the nose of the UAV facing forward. Calibrate and take off horizontally after frequency alignment. During flight, press the headless mode button (Figure 4), and the remote controller will beep three times, indicating that the UAV has entered headless mode. At this time, the UAV's front indicator lights will flash slowly. To exit headless mode, press the headless mode button again, and the remote controller will been once to indicate that it has exited headless mode.

Ensure that the operator maintains consistent orientation throughout the flight, facing the same direction as the aircraft during takeoff until landing. Regardless of the aircraft's orientation, the operator should pull back on the directional rocker to initiate retreat, causing the aircraft to move towards the operator.

#### 5.One-press for return

When the drone is flying in the air, press this function button on the remote control (Figure 5), it will automatically rise or fall to a height of 50 meters, return straight and land to the take-off location.

# One-press for return End point Starting point

Special suggestion:

It is suggested that when the LED light in front of the body flashes slowly during drone flight, the remote control emits a "beep" sound. This indicates that the drone has insufficient power. When the drone power is insufficient or signal is lost during flight, the aircraft will automatically enter the return mode and fly back according to the original route.

#### Obstacle avoidance function (need to be purchased separately)

#### Precautions for the installation and use of obstacle avoidance equipment:

Use note:Obstacle avoidance equipment must be installed before turning on the power of the drone, otherwise it will damage the obstacle avoidance equipment and affect normal use.



Take out the cover for the installation position of the obstacle avoidance equipment



2. Insert the obstacle avoidance equipment as shown in the picture





The obstacle avoidance equipment will rotate left and right when it is running. Do not manually interfere with it to prevent it from rotating when it is rotating, otherwise the equipment may be damaged.

When powering on this product, avoid touching the obstacle avoidance equipment, as it operates in a powered-on state. Unauthorized touching may disrupt its normal function and potentially damage its functionality.

When removing the obstacle avoidance equipment, the power of the drone must be turned off before dismantling, otherwise it will damage the obstacle avoidance equipment and affect its normal functioning.

#### Obstacle avoidance function and working principle

#### (Please fly in outdoor GPS mode, the indoor space is too small to affect the flight status.)

When the drone is in flight, as

depicted in Figure 6, the effective

avoider extends up to 20 meters in

angle between the two arms in the

scanning range of the obstacle

front of the drone. The scanning path covers approximately a 90°

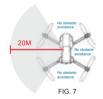
The product is turned on by default in low-speed mode (50%). The drone has 360° obstacle avoidance function, such as switching to high-speed mode (100%). Because the aircraft is flying fast, the system has not received the instruction to stop the flight. The aircraft may have hit an obstacle, and the UAV's obstacle avoidance function automatically fails.

#### Use and effect of obstacle avoidance function

direction of flight.



The position where the UAV stops flying is determined by the flight speed, particularly when the UAV is flying at full speed in low gear. Once the drone scans an obstacle at 20 meters, it begins to calculate and issue a stop flight instruction. The stop position of the drone is determined by the flight speed; the faster the flight speed, the closer the distance between the drone and the obstacle, while the slower the flight speed, the farther the distance between the drone and the obstacle.



When the drone flies on the left side, as depicted in Figure 7, the effective scanning range of the obstacle avoider extends up to 20 meters from the left side of the drone. The scanning path covers approximately a 90° angle between the two arms on the left side. This same configuration applies to the scanning range of the obstacle avoider when flying backward or to the right.

#### obstacle

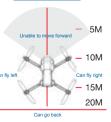


FIG 9

When the UAV encounters obstacles and hover in the scanning range of 20 meters in the flying direction, the UAV cannot continue to fly in that direction, and can continue to fly after avoiding the obstacles or to other obstacles within 20 meters. In the direction of flight.

When the UAV takes off, there is an obstacle within 20 meters of the forward direction. The UAV cannot fly in this direction. It can continue to fly after avoiding the obstacle or fly in the direction of other obstacles within 20 meters.

6. If the UAV encounters an obstacle during GPS intelligent return, the obstacle avoidance device will rise to a safe height again after scanning the obstacle before returning.

## Resolution guide for common problems

Problems	Causes	Resolutions
Drone indicator is flashing while not respond when operating	Unsuccessful Drone     GPS searching     Low power of Drone	Move the Drone to an empty place to perform searching again     Charging the battery
Drone blades turn but can't fly	Low battery     Blade deformation	Charging the battery     Replacement of blade
The drone was badly shaken	Blade deformation	Replacement of blade
Can't keep the drone steady after fine-tuning to the bottom	Blade deformation     Poor motor	Replacement of blade     Replacement of motor
After impact, uncontrolled flying of Drone when start again	Triaxial acceleration sensor overbalances due to impact	Make the Drone standstill for 5-10 seconds

#### Warranty

Our product is guaranteed to be free from manufacturing defects for a period of 12 Months. If your product becomes defective during this period, Electus Distribution will repair, replace, or refund where a product is faulty; or not fit for intended purpose.

This warranty will not cover modified product; misuse or abuse of the product contrary to user instructions or packaging label; change of mind and normal wear and tear.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

To claim warranty, please contact the place of purchase. You will need to show receipt or other proof of purchase. Additional information may be required to process your claim.

Any expenses relating to the return of your product to the store will normally have to be paid by you. The benefits to the customer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods or services to which this warranty relates.

This warranty is provided by: Electus Distribution Address 46 Eastern Creek Drive, Eastern Creek NSW 2766 Ph. 1300 738 555