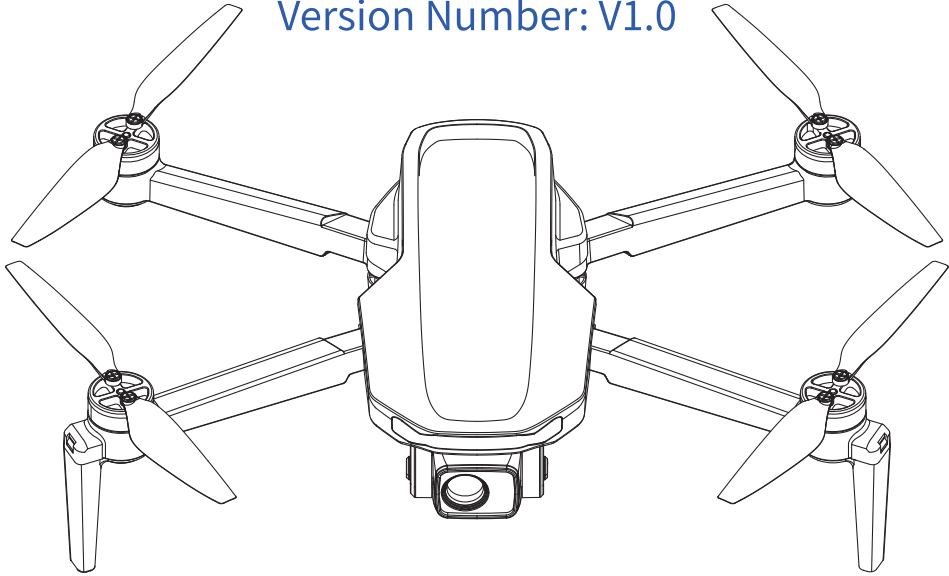# S-X1
AERIAL DRONE
Version Number: V1.0

Video demonstration
of drone operation

- In order to ensure the requirements of electromagnetic environment of aviation radio stations, (prohibited in the range of 10 kilometers on each side of the center line of the airport runway and 20 kilometers at each end of the runway) as well as civil aviation flight paths and routes. The use of models and drones is prohibited. The use of all types of models and drones is prohibited in the no - fly zones issued by the relevant national authorities.

- In order to ensure the electromagnetic environment of aviation radio stations, it is prohibited to use all kinds of model remote controls in the area with a radius of 5,000 meters around the center of the airport runway. During the period of radio control orders issued by the relevant state authorities, the use of model remote controllers in the area should be stopped as required.

CATALOGS

Preamble

Welcome to our drone user manual. Please retain the instruction and package since they contain important information.This manual has been carefully prepared to ensure that you fully understand the operation of your drone and use it safely and effectively. In order to enhance your flying experience while adhering to all safety regulations, this tutorial is divided into four detailed sections covering everything from basic safety knowledge to flying techniques.

- Features and important information about the S-X1 drone

1. UAV weight: 170.8g; UAV max size: 380*335*65mm; Drone frequency band: 2400MHZ-2485MHZ
2. Options: control drone flight equipment; remote control
3. Maximum take - off mass (MTOM) of the drone: 237g (including battery and paddles)
4. Maximum drone flight speed:7m/s
5. Maximum reachable altitude:120m
6. Maximum speed for each gear:First gear: 7 m/s;Second gear: 6 m/s;Third gear: 3 m/s
7. Night flight is prohibited (wind resistance: 3.3 m/s)
8. Drone category: C0
9. the drone does not have the ability to carry loads with items other than its own paired battery and paddles
10. Drone Remote Control Equipment and Software: Equipment: Remote Control / Software: DW Drone .
11. Description of Drone and Drone Behavior in case of Data Link Loss: When the data link is lost, the drone automatically returns to the take-off point.
12. Operation Restrictions: Avoid outdoor operation under strong wind or thunderstorm conditions, and ensure night flights are within visual range.
13. This drone is only suitable for operation by individuals aged 12 and above. To ensure flight safety, please avoid flying near airports, highways, train stations, subway stations and densely populated urban areas.
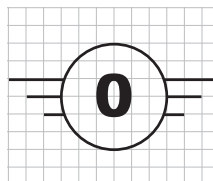
Drone Handbook

Part I: Security Guidelines

It is vital to know all safety - related information before you start using your drone. This section provides basic safety rules and guidelines to prevent potential injury or damage. Following these basic guidelines will not only ensure your safety and the safety of those around you, but will also protect the drone from damage.

Part II: Introduction to Product Components

To familiarize you with your drone, this chapter details the names, functions, and operations of the various components. By learning the basics of your product's components, you can quickly diagnose problems as they occur and more effectively utilize your drone's diverse capabilities.

Part III: Flight Tutorial

This section provides a comprehensive overview of the basic setup steps and operating techniques in helping beginners easily master drone enablement and basic flight maneuvers. Once you have mastered the basic operation of your drone, this section will further guide you in improving your flying skills. The content includes detailed flight procedures, operating tips, use of advanced features, and strategies for potential emergencies. Whether you are just starting out or are an experienced pilot, these in-depth tutorials will provide valuable guidance and advice.

- We recommend that you read each section of this manual carefully to fully understand all of the drone's features and safety measures. We want you to find fun and safety when using your drone. Thank you for choosing our products and enjoy your flight!

Indoor flying

Please choose a spacious indoor area and make sure there are no obstacles, people or pets around for flying. Please ensure that babies and young children are kept at a safe distance and avoid any physical contact with the drone to prevent unnecessary accidents.

Outdoor flying

Please choose a sunny, windless or breezy day. Choose a location that is free of obstacles, crowds, pets, passersby, high walls and trees. Stay especially away from heat sources, electrical wires or electronic power sources to avoid collisions, entanglements, fires, electric shocks and other potentially disastrous accidents.
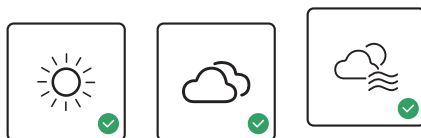
⚠ **Caveats:**

1. Keep the UAV in line of sight during flight and avoid obstacles such as power lines, trees, crowds, etc.

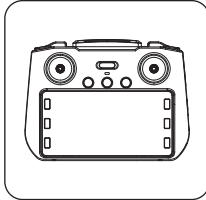2. Do not fly in extreme weather conditions, including extreme cold, heat, strong winds and heavy rain.
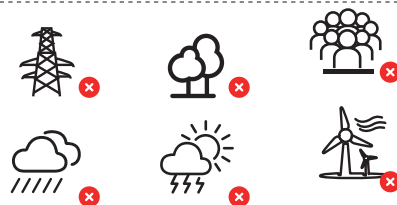
1. To avoid damage or loss of the drone due to improper operation, beginners are advised to read the manual and watch the instructional video carefully before flying. Keep the flight distance within 98 feet / 30 meters, and only try high altitude flight after three days of low altitude flight practice.
2. Gyro calibration must be performed before each take off. Otherwise, the drone may fly unstably or even lose control.
3. The maximum connection distance between the remote control and the drone is 1000 meters. Do not fly beyond this range as it may cause the drone to crash or be lost due to loss of control (in jamming-free mode).
4. The maximum connection distance (i.e., the data transmission range of the drone) between the mapping transmitter and the drone is 1000 meters. Exceeding this distance may cause problems receiving photos, videos, etc. (in jamming-free mode).
5. Keep the drone within line of sight when flying.
6. When the drone takes off, please keep your distance (it is recommended to keep a distance of more than 6.5 feet / 2 meters) and do not touch the drone during flight to avoid being injured by the rapidly rotating propellers.

Drone Handbook

Accessory List
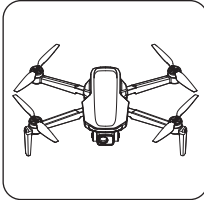
Airplane (with battery) x 1   Remote control x1   Spare propeller Ax4 Bx4   USB charging cable x 1
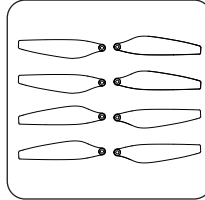
⚠ **Caveats:**

If you purchased the dual battery version, the package willinclude 1 additional spare battery. If you purchased the 3 - battery version, the package will include 2 additionalspare batteries.This product does not contain the non-rechargeable battery, since its batteries in the aircraft and the remote control are rechargeable and non-replaceable, except users buy additional batteries as a standby for the aircraft.

Other drone accessories available for purchase
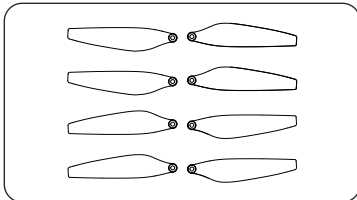
Spare propeller Ax4 Bx4
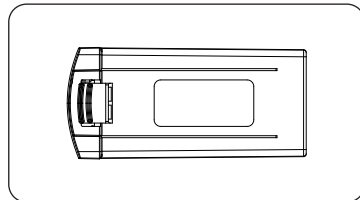
Battery

USB charging cable x 1

Brushless motor

Preamble

Welcome to buy this product, in order to make it easier and more convenient for you to use this aircraft, please read this manual in detail before operation, and please keep this manual as a reference for future adjustments and maintenance.

Statement

1. This product is not suitable for people under 12 vears old, If the user is a child who is more 12 years old, he/she needs an adult supervisor to teach or show him/her how to safely fly and control the toy.This product is a toy drone that integrates specialized knowledgeof mechanics, electronics, aerodynamics, and high . frequency transmiter, and requires proper assembly and commissioningto avoid accidents. The owner of this product must use a safe way ,read this instruction and learn basic skills to operate the control; improper operation may causeserious personal injury or property damage.
2. This product is intended for people who have experience in operating model alrcraft and are not less than 12 years of age.
3. in case of use. operaion, maintenance and other problems, Please contact the local distributor or the relevant personnel of our company.

Safety Precautions and Privacy Respect

Keep away from crowds when flying RC model arplanes. Improper assembly or damage to the body, poor electronic control,and unfamiliar operation may lead to damage to the aircraft or personal injury and other unpredictable accidents. The operatormust pay attention to the safety of fight and must be aware of his / her responsibility beyond his / her own negligence.Without the owner's consent, photographing private premises or personal activities is strictly prohibited. Data collection is limited to public scenes and shall only be used for the business purposes explicitly stated.

1. Keep away from obstacles and crowds

Remotely piloted aircraft flight with uncertain flight speed and state, there are potential dangers, flight must be far away from the crowd, high-rise buildings, high-voltage power lines, etc., and avoid flying in the wind, rain, thunder and lightning and other inclement weather, in order to ensure the safety of the pilot / the surrounding crowd and property.

2. Keep away from humid environments

The interior of the aircraft is composed of many sophisticated electronic components and mechanical parts, so it is necessary to prevent the aircraft moisture or water vapor into the body, in order to avoid mechanical and electronic components failure and cause accidents.

3. Use this product correctly and repair it with original parts to ensure safe flight. Operate and use the product within the scope of its function, and do not use it for illegal purposes other than those permitted by safety laws and regulations.

4. Avoid manipulating alone

Remote Control Aircraft (RC) maneuvering skills are difficult to learn at an early stage, so avoid flying alone and require the guidance of an experienced person.

5. Safe operation

Please operate the RC aircraft according to your own condition and fiying skils. Faigue, poor mental health, or improper operation will increase the risk of accidents.Do not touch the rotating rotor, avoid loose clothing or hair that could be caught in the rotor, do not fly near the face or body.

6. Keep away from high-speed rotating parts

When the rotor of the aircraft is rotating at high speed, keep the pilot, surrounding people and objects away from the rotating parts to avoid danger and damage.

7. Keep away from heat sources

RC aircraft is composed of metal, fiber, plastic, electronic components and other materials, so we should try to stay away from heat sources, to prevent sun exposure, to avoid deformation or even damage caused by heat. Therefore, it should be kept away from heat and sunlight as much as possible to avoid deformation or even damage caused by high temperature.

Aircraft

1. Names of flight components
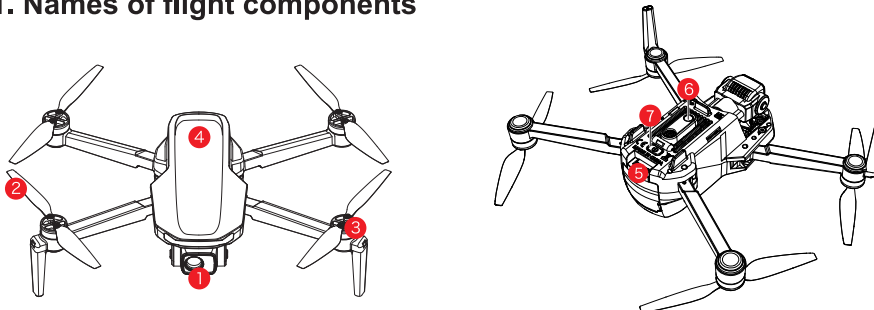
1.3-Axis Gimbal   2.Propellers   3.Motor   4.Quter Shell
5.Li-Ion Battery   6.Bottom Optical Flow Lens
7. Switch (press and hold for 3 seconds to receive signals, with light indication)

2. Propeller installation

The air blades used in this product are divided into A and B air blades, if damaged, please use the spare air blades in the accessory kit for replacement.

⚠ (1) When installing for the first time, please distinguish the air blade model carefully.

Propeller A ①

A A

Propeller B ②

B B
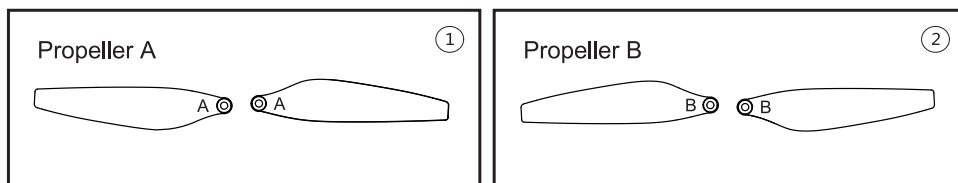
⚠ (2) Against Figure 3, use the equipped screwdriver to unscrew the screws of the wind blade to be replaced, remove the original wind blade, install the new wind blade to be installed, and re-lock the screws.

③

④

A Before B

B After A
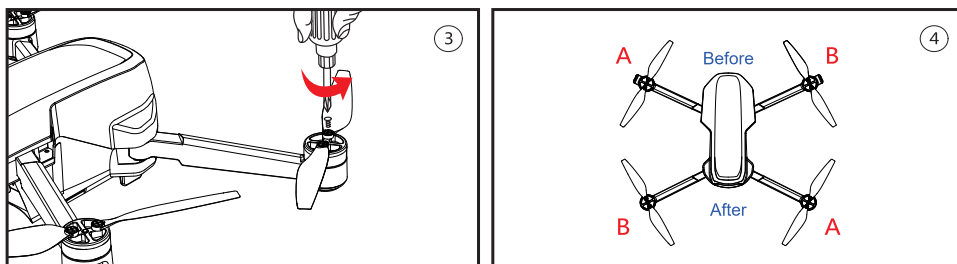
⚠ (3) Compare with Fig. 4, please check whether the model of wind blades on the craft is the same as the figure, please install the wind blades in the correct position, otherwise the craft will not fly normally.

Remote controls

1.Remote control function
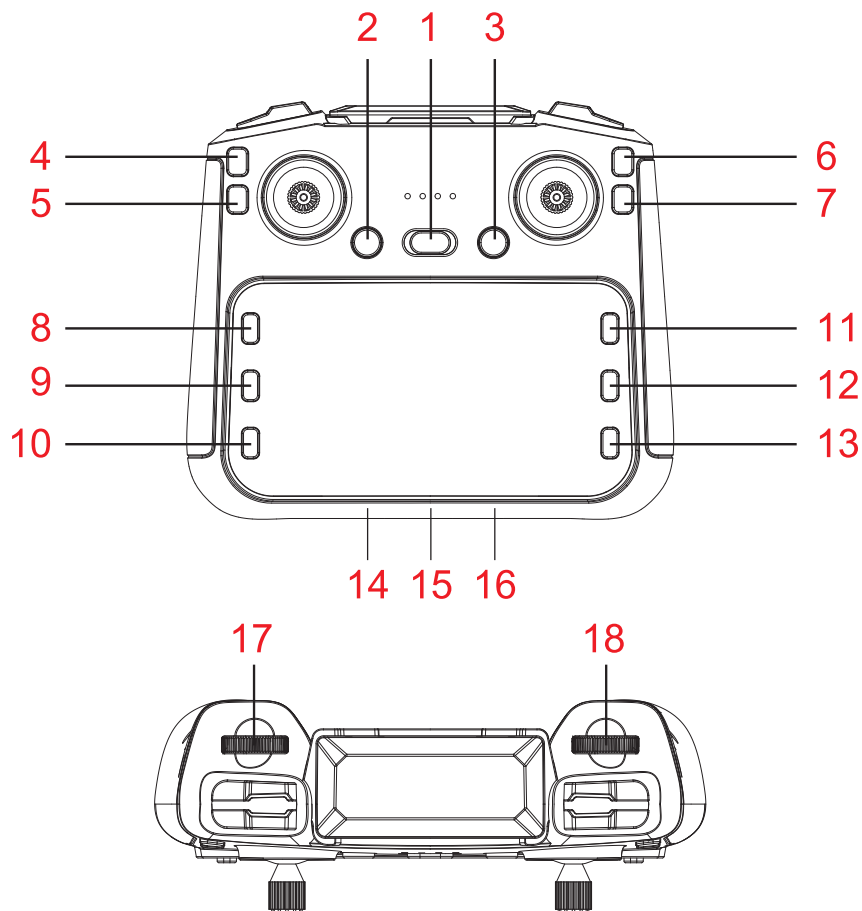
2 1 3

4   6
5   7

8   11
9   12
10   13

14 15 16

17   18

1. power switch	7. geomagnetic calibration	13. playable
2. release	8. take a picture	14. Charging Socket
3. GPS Switch	9. videotape	15. Memory Card Slot
4. headless mode	10. return to	16. Cell Phone Connector
5. Gyro Calibration	11. upwards	17. Lens up / down adjustment
6. One-click return	12. downturn	18. speed regulation

4. Aircraft lithium batteries

1
3
2

MADE IN CHINA
Name of Sample：Li-ion Battery
Model No.：ZN 982558
Voltage：7.4V
Capacity：1600mAh
Energy：11.84Wh
Applicant's name,：Guangdong Zeneng Electronic Technology Co., Ltd.
Address：No.101, 1st Floor, Building C1-08, Zhonghaixin Innovation
Industrial Park, No. 7 Shugang Avenue, Binhai Street, Haojiang District,Shantou City
USB Input: DC 5V/1.2A

Li-ion 01   Dry Chemical
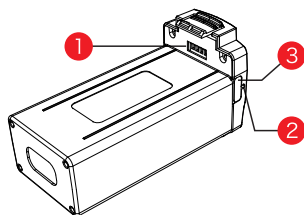
1. Battery Connector
2. Charger Indicator   **3.** Type-C port

Press and hold the power button for 3 seconds to turn on the power, then press and hold the power button for 3 seconds to turn off the power.
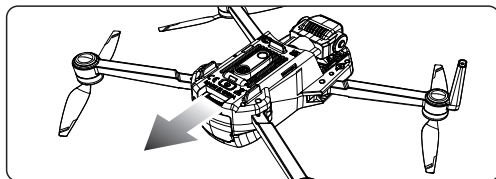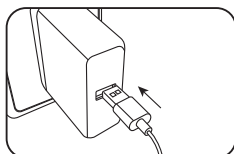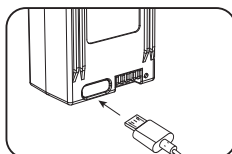Batteries are to be inserted with the correct way.

Li-ion battery

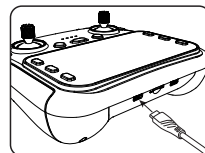## 1. Charging of aircraft batteries and remote controls

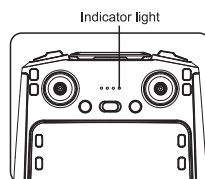The battery can be removed from the craft by pressing the tab on the battery.

Cell Phone Adapter: 5V,1A-2A
(Requires additional purchase)

Charging time: approx. 120 minutes
(Recommended with original charging cable)

Use the original USB charging cable to connect the remote control (leftmost socket) and connect to the power supply for charging

Indicator light

When charging, the remote control indicator light is always on in green, red light is blinking, and off when fully charged.

2. Lithium battery charging instructions

1. Charging: Battery indicator red light on when charging, battery indicator off when full.
2. This toy is only to be connected to equipment bearing either of the following symbols: You can use mobile power or car power supply for charging.（Figure 1）
3. The charging time of the Li-ion battery is about 120 minutes, and the endurance time is about 25 minutes.
4. The remote control uses Li-ion battery, charging time is about 150 minutes, when fully charged, thecharging indicator light is off.

or

（Figure 1）
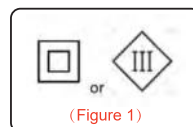
⚠ Precautions when charging:

※ Do not place the battery in a hot place, such as an open flame or an electric heater, or it may be damaged or explode.
※ Do not hit or knock the battery against hard surfaces.
※ Do not disassemble the battery.
※ Do not immerse the battery in water. Store the battery in a dry place.
※ Do not leave the battery while it is being charged.
※ The batteries should be charged under adult supervision.
※ The supply terminals are not to be short-circuited.
※ Exhausted batteries are to be removed from the aircraft.
※ The transformer, power supply or battery charger used with the electric toy shall be regularly examined for damage to the supply cord, plug, enclosure or other parts, and in the event of damage, it shall not be used until the damage has been repaired.

LCD Function Introduction
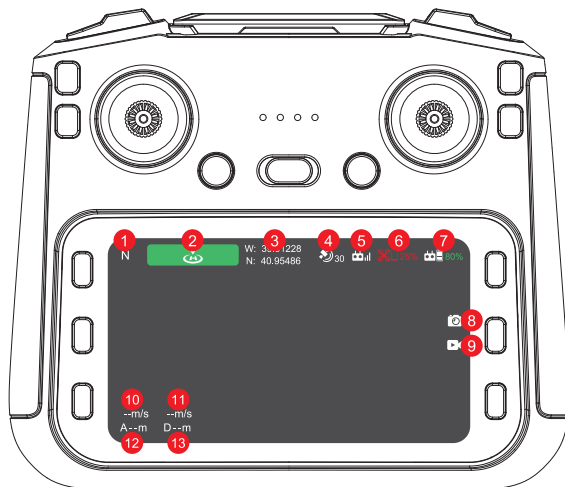
1. Speed Gear: shows which gear the drone's current speed is.
2. Flight Status / Mode: displays the current flight mode and status of the UAV.
3. Latitude and Longitude: shows the latitude and longitude of the drone's current flight.
4. Number of satellites: Shows the number of satellites the drone is currently searching for.
5. Remote Control Signal: Displays the current signal of the remote control.
6. Vehicle Power: Displays the current remaining power of the drone.
7. Remote Control Power: Displays the current remaining power of the remote control.
8. Photo Status: shows the current photo status of the drone.
9. Video Status: shows the current video status of the drone.
10. Vertical Speed: Displays the current vertical speed of the drone.
11. Horizontal Speed: Displays the current horizontal speed of the drone.
12. Altitude information: displays the current altitude information of the UAV.
13. Distance Information: Displays the current distance information of the UAV.

Remote Memory Card Installation
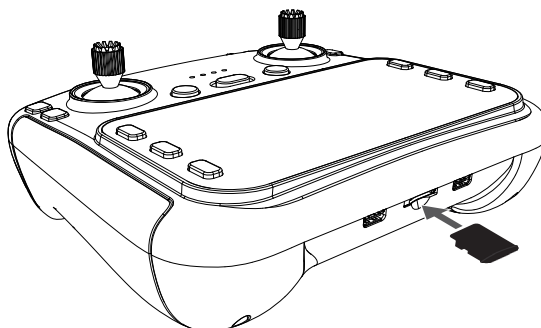
1. The photo and video functions can only be used when the drone is in flight after the screen is turned on.
2. Photos and videos can only be saved after the memory card is inserted in the remote control.

Flight Operations Instruction

Due to the large size of this craft, we only recommend that you use this product outdoors to avoid unnecessary loss or damage. Due to the large size of this craft, we only recommend that you use this product outdoors to avoid unnecessary loss or damage.

Step 1: Turn on the remote control switch and the remote control power indicator blinks.

The remote control will automatically pair the frequency with the aircraft, and when the pairing is completed, the remote control power indicator light is always on.
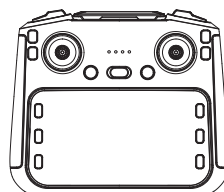
Step 2: Power on the craft and place it on a level surface.

- At this point the vehicle placed on the horizontal plane automatically enters the frequency pairing state. Before frequency pairing:
  - Front arm lights: Blue - - slow flash.
  - Rear arm light: Green - - slow flash.

- Remote control frequency pairing success.
  - Front arm light: Blue - - always on.
  - Rear arm light: Green - - slow flash.
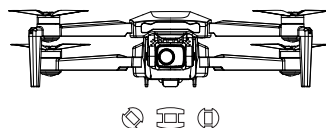
Step 3: Vehicle gyro calibration

Short press gyro correction

- Short press on the calibration gyro button.

- Flyer Indicator Lights:
  - Front arm lights: Blue - - fast blinking.
  - Rear arm light: Green - - fast blinking.

- Turns on when calibration is complete:
  - Front arm lights: Blue - - always on,
  - Rear arm lights: Green - - slow flash.
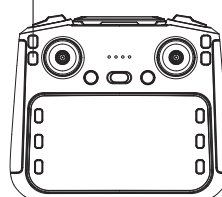
⚠️ **Note: Be sure to place the vehicle on a level surface for horizontal calibration, otherwise the flight attitude will be affected.**

Step 4: Geomagnetic calibration

(first use requires geomagnetic calibration, subsequent
use does not require geomagnetic calibration)

- Short press the geomagnetic correction button
  to enter the geomagnetic correction mode,
  the aircraft indicator light:
    Front arm light: Blue - - slow flash.
    Rear arm light: Green - - slow flash.

Step 5: Geomagnetic Level Calibration - - Part 1

- Pick up the craft horizontally and accompany it with
  your body in one complete turn (360°).
    Make a full turn (360°) and the remote control beeps.

- Airplane Indicator Lights:
    Front arm lights: Blue - - always on.
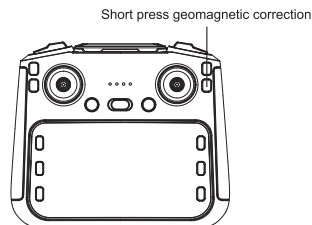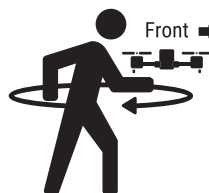   Rear arm light: Green - - slow flash.

Front ➡

Step 6: Geomagnetic Vertical Calibration - - Part 2

- Turn the craft nose down and accompany your body
  in a complete circle (360°),
  and the remote control beeps.

- Flyer Indicator Lights:
    Front arm lights: blue - - always on.
    Rear arm lights: green - - fast blinking - - slow blinking.

Front
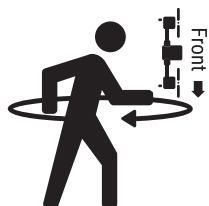
Step 7: GPS search successful.

- Reposition the craft on an outdoor level surface.

- Waiting for a star search.

- This step takes a few minutes to complete.

- This step takes a few minutes to complete.

- The remote control will beep when the search is completed.
   Vehicle light status:
     Front arm light: blue - always on.
     Rear arm light: green - always on.

0
GPS satellite
(>8 satellites for take off)
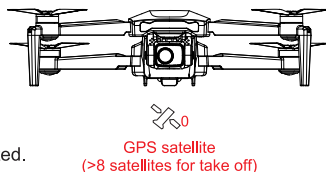
⚠ **CAUTION: Please search for GPS signal in an open area, GPS signal can not be searched under indoor, tin house and other buildings.**

⚠ **CAUTION: The front and rear lights flash slowly when the drone is returning home with low power.**

Step 8: Motor Unlocking

- Press the unlock button on the remote control to unlock the motor.

- Push the throttle stick to take off.

- Cancel Motor Unlock:Pull down the throttle for 2 seconds to cancel the motor unlock.
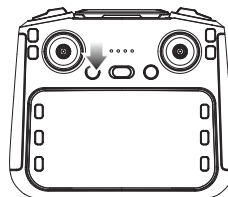
⚠ **Tips:** When the battery is low, the remote control beeps "drop" "drop" "drop". The front and rear lights of the drone flash slowly. In this case, please stop flying as soon as possible and recharge the battery.

2. How to operate the remote control

Gas pedal lever

Go Up

Go Down

Turn Left

Turn Right

Directional lever

Front

Back

Left

Right
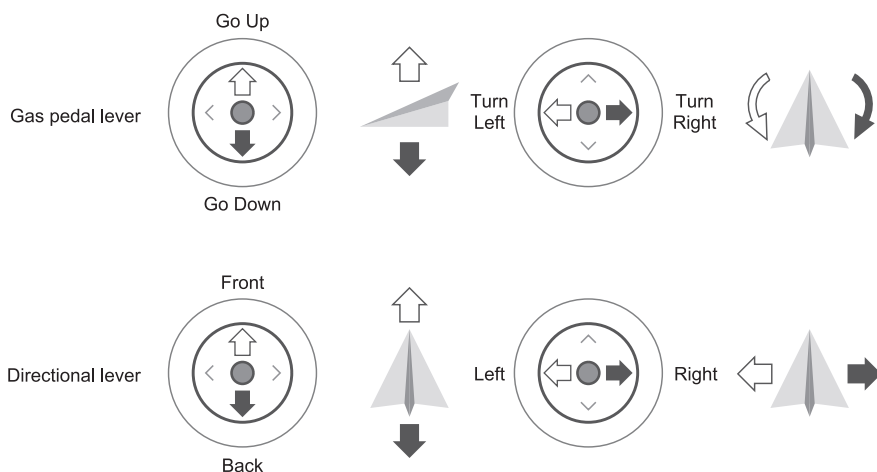
1. GPS Return

The GPS Return to Home (RTH) function returns the vehicle to the take off point.
This function can only be realized in GPS mode.
There are three types of return to home (RTH): GPS Return to Home /
Low Power Return to Home / No Signal Return to Home.

GPS Return:
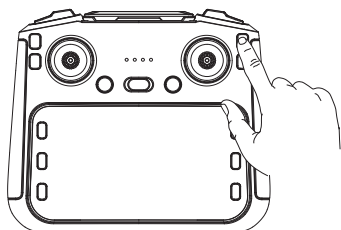
Tap the ⊚ button on the remote control or mobile app
interface, the remote control will start to beep.
The aircraft will automatically return to the vertical
airspace over the takeoff point and then slowly descend
to the take off point.
Press the ⊚ button again to stop the return flight, or you
can manually pull down the throttle stick and direction
stick to lower the aircraft to a safe area.

② Low Power Return:

Low battery return is triggered when the battery is low.
When Low Power Return is activated, the vehicle will automatically return to the airspace
approximately 30 meters away from the operator, who can manually operate and control
the vehicle.
The vehicle can also be landed in a safe place by pulling down on the throttle stick.
When the power is depleted, the vehicle will automatically return to the takeoff point.

⚠ (Note: Please do not push the steering stick forward when entering low power return, if you do,
the return will be invalidated and the aircraft will be lost)

③ Returning without signal:

If the vehicle loses connection with the remote control, the vehicle will automatically enter
the return mode. The vehicle will automatically return to the takeoff point, and the vehicle
will be paired with the remote control during the return process. If the connection is
successful, the operator can control the vehicle again.

2. Optical flow localization

The vehicle is equipped with optical flow positioning, which allows the vehicle to hover stably at low altitude.

6m
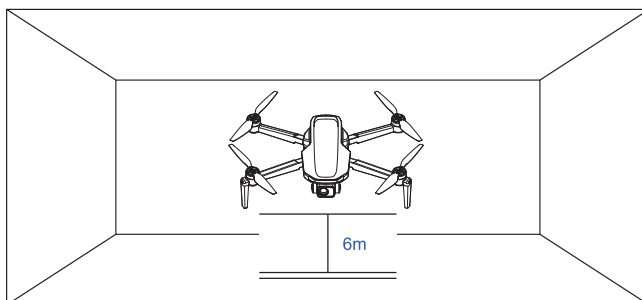
⚠ Note:

(1) Optical flow positioning needs to assist flight in the surrounding environment with sufficient light and rich texture, it can not completely replace the user's judgment, please pay attention to the situation of the aircraft and the APP prompts, do not overly rely on the optical flow positioning.

(2) The effect of optical flow positioning is not good or ineffective in the environment of too bright, too dark, mirror surface, solid color smooth ground, water, reflective surface, sparse texture surface and other scenes.

(3) The best working range of optical flow positioning is between 0.5 - 6 meters, beyond this range, the positioning of optical flow positioning may not be effective, please fly with caution.

(4) Please make sure that the optical flow positioning lens is clear and free of stains and obstructions.

3. Explanation of camera functions
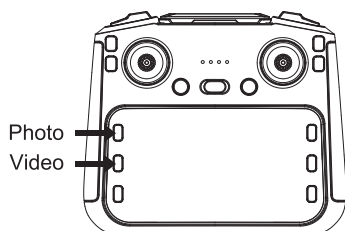
Photo

Video

Photo

Video

Icons on the APP

① Tap the button on the remote control, or tap the button on the APP interface, the Photo indicator on the remote control display blinks once, indicating that a photo is taken.

② Long press the button on the remote control once, or tap the button on the APP, the video indicator light on the remote control display is always on, indicating that the video is being recorded.

③ Press or again to stop recording and save the video to APP album.

4. With GPS mode/without GPS mode

(Indoor mode needs to be switched to GPS - free mode)

In GPS signal poor environment, such as indoor or complex environment, long time can't search GPS satellite signal, if you need to take off then you can long press the GPS button on the remote control for 3 seconds to turn off the GPS mode, the remote control display will become P - OPTI state, the aircraft into indoor mode, you can take off, but GPS all functions are off.
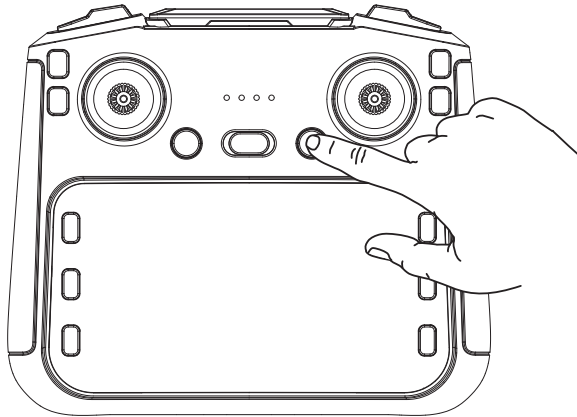
Press and hold the GPS button for 3 seconds to disable GPS mode.

GPS Mode

It is the UAV using GPS module positioning, when the GPS mode is turned on, the UAV with the barometer can be fixed point, fixed height precision hovering flight, the difficulty of the flyer to operate the UAV is greatly reduced, at the same time, with the ground station system to realize the autonomous route flight, real - time to the ground station to send the position of the aircraft is located. In the case of poor GPS signal the UAV can not realize precise hovering, only provide attitude stabilization, the UAV is equivalent to attitude mode at this time.

Attitude Mode

Attitude mode is when there is no GPS positioning, the flight control only provides attitude stabilization, attitude mode is commonly used in some cases where the GPS signal is poor. The UAV mainly uses IMU inertial measurement unit (barometer, angular velocity meter, accelerometer) to locate its own state, in this case, the UAV will flutter around without precise hovering, and the pilot is required to correct the position of the UAV continuously through the remote control. Therefore, the pilot is required to have a high level of skill in operating the drone, and when taking the drone pilot license exam, the over-the-horizon level of flight must be flown in attitude mode. The main purpose is to train drone pilots to have better piloting skills in order to pilot in complex terrain and rescue the aircraft in emergency situations.

Software Instruction

- Software installation instructions
- Warm prompt
- Novice mode
- Operation interface

  1.1 Introduction to the control interface

  1.2 Control interface function description

  1.3 Gesture recognition

- MV interface

  Introduction to MV interface

Software Installation Instructions

1. Install the Mobile Client

Please scan the ar code below and download themobile App on the corresponding website.If you need to update the APP, you need to manually click the update button in the app - store.

iOS

Android (google)

2. Connect Aircraft WiFi

(1) Turn on the aircraft power;

(2) Looking for aircraft hot spots in mobile phone "setting-wireless LAN";

(3) Click the network(no password), and the phone will be connected automatically.

Tips: Your mobile Wi-Fi needs to support IEEE 802.11 a / b/g/n / AC, IE, the 5G band WLAN.

3. The recommended model configuration

(1) ios

Configuration	Recommended	Optimal (Support 2 k)
Product model	iPhone 6 and above	iPhone 7 and above
System version	ios 12.0 and above	iOS 12.0 and above

(2) Android

Configuration	Recommended	Optimal (Support 2k)
The CPU model	Snapdragon 630 and above Samsung Exynos 7420 and above Hair division Helio X25 and above Kirin 950 and above	Snapdragon 835 and above Samsung Exynos 8895 and above Hair division Helio X30 and above Kirin 970 and above
System version	Android 5.0 and above	Android 8.0 and above
Memory size	3G and above	6G and above
CPU usage	Occupancy rate of 25% and below	Occupancy rate of 10% and below

Clean up the background program, which can effectively reduce the CPU usage.

Warm Prompt

When the aircraft is in the following environment, the fixed-point hovering effect is not good.

Note: When the aircraft is in the following environment, the optical flow of the lower lens is not good enough to hover, which will make it difficult for the aircraft to fly smoothly, and the body will be shaken.
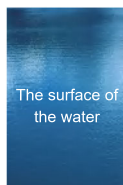
| The surface of the water | Dimly lit | Large vertical gap | Smooth reflective ground | Two-color stripe |
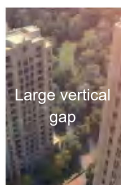
Novice mode

After connecting the aircraft, click the ⚙ button in the upper left corner of the homepage to set the fight parameters. The default is the predefined mode, and when it is turned on, it means the novice mode.

Instructions

Flight parameter settings

Novice mode:

maximum height: (120)

Maximum radius: (1360)

novice mode

save
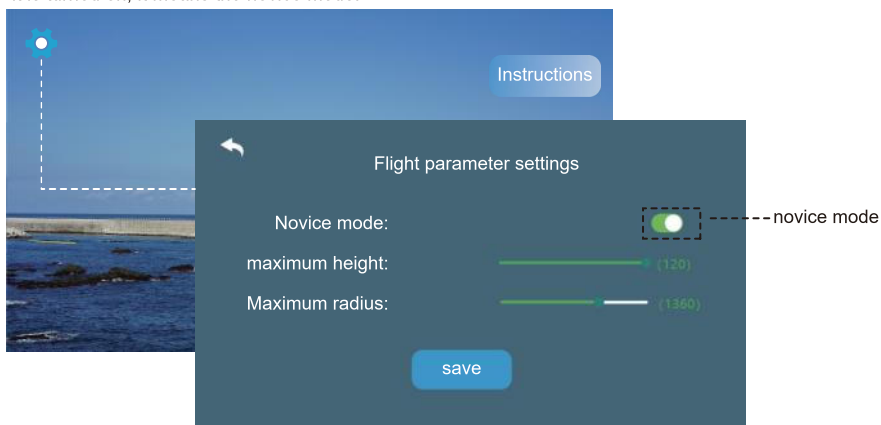
1.1 Introduction to the Operation Interface
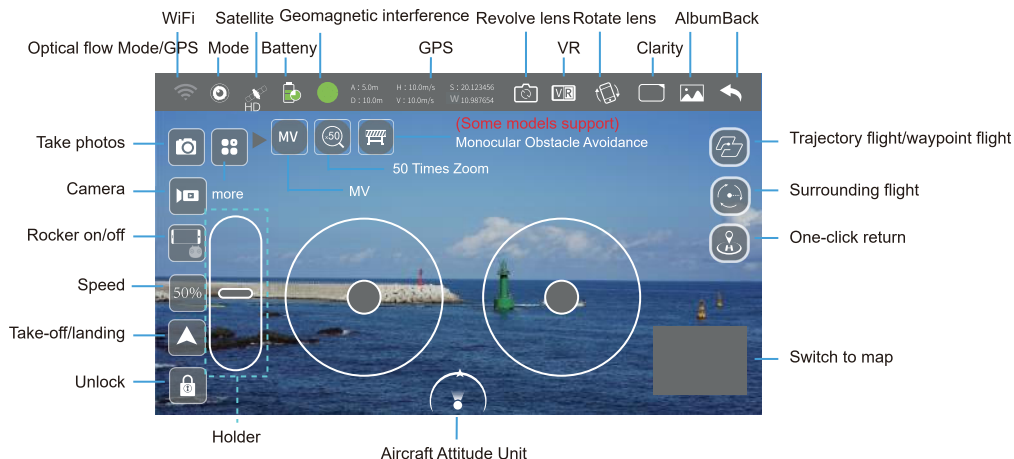
1.2.1   Function Description
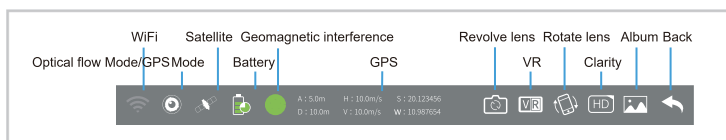
WiFi: Display chart signal strength,

Satellite signals: Represents current flicht mode and number of satellites, Scintillation means that the current mode is the potical flow point, without the function of returning, following, circling and pointing. Constant light indicates current GPS mode.

Battery: The battery status of the aircraft.(1) 2-4 grid indicates the normal power, which can operate the returning, following, circling and pointing flight functions normally in the GPS mode.(2) 1 grid (flicker state) represents the current low power state, and the alrcraft will perform the automatic course reversal function. There is no following, circling and pointing flight function in low power state.

GPS signal: Displays the helght, distance and corresponding lonaitude and latitude of the current aircraft from the reentry point.

Revolve lens: Can switch between front lens and down lens. (see next page for details)

VR model: Click into VR mode.

Rotate lens: Record the relevant parameters of each flight

Clarity: Click to switch the video definition.

Album: Photos and videos can be viewed.

* Multi-lens feature description

Perspective conversion - - - - - - 📷

📷 Perspective conversion

Click the "switch lens" button to switch the following four functional states successively:
    (1)ordinary front lens;
    (2)shooting;
    (3) painting within painting;
If the button "switch lens" is not clicked, the default function is normal front-lens function.

*PIP (Picture in picture)

In the picture in the picture, you can view the video reality of the camera under the aircraft in real time.
In the control page, click to open the "draw in picture" switch, the lower lens of the aircraft and the video screen captured by the fron tlens will be displayed together.(The 4K lens Wi-Fi aircraft is not supported.)

After the picture in picture is opened, if MV mode is entered at this time, Mv video of two shots can be recorded simultaneously.

Shot switching and multi-lens windows - - - - - - 🔄

🔄 Shot switching and multi-lens windows

Shot Switching and multi-lens window: (part of the model support) in the button, free to switch the UAV up and down Lens, picture-in-picture (The 4K lens Wi-Fi aircraft is not supported.),split screen (The 4K lens Wi-Fi aircraft is not supported.)
And the combination of mobile phone camera to realize the free combination of multiple windows.

Airplane headshot
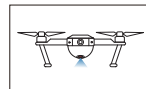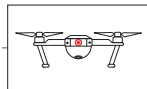
Airplane Lens

Cell Phone Front Lens
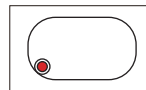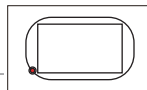
Cell Phone Rear View

* Photo album description

Album - - - - - - 🖼   Click on the album to view photos and videos, and to access the creative interface.

Video | Photo

12月01日

View video Look at the photo

01:26

Select image or video

Creative interface

Select

Creation+

1.2.2 Function Description

50 Times Zoom
MV

Take photos
Camera
Rocker on/off

Monocular
Obstacle
Avoidance
(Some models support)

Speed
Take-off/landing
Unlock
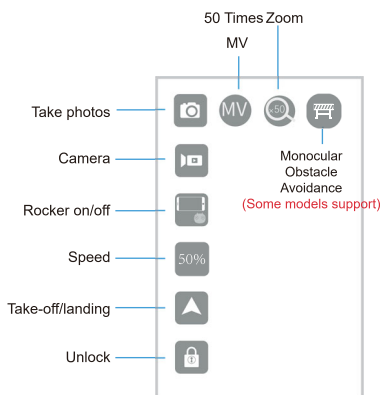
Take photos:	Click the button to take photos according to the current lens (fron tlens or down lens).
Camera:	Click the button to shoot videos according to the current lens (fron tlens or down lens).
Rocker on/off:	Click to switch to mobile phone control or remote control.
Speed:	Displays the current state of fast and slow. Click to switch to fast and slow in mobile control mode.
Unlock:	After unlocking, one key can be used to take off or drop
Take-off/landing:	After the calibration is completed, place the aircraft horizontally and click the unlock button to start the fliaht operation.
MV:	Click to enter the MV interface.
50 Times Zoom:	After opening, adjust the zoom multiples of the lens view by adjust.ing the right slide bar. After the view is enlarged, the finger slidesthe visual range of the movable vew on the screen
Monocular Obstacle Avoidance:	Monocular obstacle avoidance is only used to assist fliaht, do not fly direct-ly at people to test the effect. (It takes one second to back off to trigger the obstacle avoidance function to release.)

1.2.3 Function Description

Trajectory flight/waypoint flight

Surrounding flight

one-click return
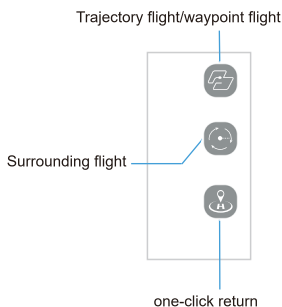
Waypoint flight: In GPS mode, the aircraft will fly according to the location selected on the map.

Trajectory flight: In optical flow mode, the aircraft will fly according to the selected position.

Surrounding flight: In GPS mode, the aircraft nose will fly around clockwise or counterclockwisewith the current position of the aircraft as the center. During the surround process, you can con- trol the rise, fall, forward, and reverse to adjust.

One-click return: In GPS mode, click to achieve one-click return.

1.2.4 Function Description

Holder

After the aircraft takes off, the holder will be displayed on the left side of the screen. At this time, if you move the slider upward, the front lens of theaircraft will move upward by a certain anale: if you move the slider down.the front lens of the aircraft will move downward by a certain angle.

Rocker

The left rocker can control the upward, downward movement, left and right turn of the aircraft, and the right rocker can control the forward, backward movement of the aircraft, and it can also move the aircraft towards the left and right.

Share
After clicking   in the upper righ t corner of the screen on the control page enter the album interface. When you click to view a photo or video, users can share photos or videos to major social platforms through   in the top right corner.

1.3 Gesture Recognition

Facing the front lens of the camera, the following gestures can be triggered to trigger the automatic camera or camera function of the aircraft.

Take Photos by Yeah Gestures About 2m in front of the camera of the aircraft, hold the Yeah ges- ture with one hand flat, After the aircraft successfully recoanized the aesture, the countdown of 3 seconds began to take photos;

Shoot Videos by Box Gestures About 2 meters in front of the camera of the aircraft, put yourhands on the position of the face jaw to make a sauare video gesture, After the aircraft has success.fully recognized the gesture, the video will start. When the gesture is recognized again, end the re-cording (the time difference between two recognition should be more than 3 seconds);

Shoot Videos by Palm Gestures About 2 meters in front of the aircraft lens, with five fingersand one hand flat: After the aircraft has successfully recoanized the gesture, the yideo will start.When the gesture is recoanized again, end the recording (the time difference between two recognition should be more than 3 seconds):

*Special Instructions

To ensure that the lens gets a higher recognition rate：

1. Please aim the lens face to face,
2. Please fly in a good light environment;
3. Please conduct gesture recognition operation at a distance of about 2m from the lens.
4、Ask The user to face the camera; (face assist feature).

In the following cases, it will result in a low lens recognition rate
1. Weak light or backlight;
2. The WiFi signal is weak or the signal is disturbed.

2 MVInterface

Background wall
lever
Filter   Operating
Photo album   Revolve lens
Turn off MV mode

Choose music>>

Rotate the picture

Taking pictures

Camera

6s   30s

Length of   Recording progress bar   Length of music time
recorded time
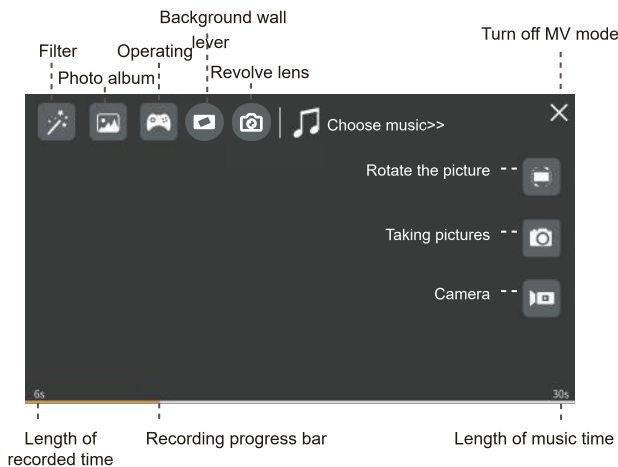
Rotating picture

Click this button to enable the Rotate Screen feature. At this point, the finger swipes on the screen to rotate the imaae； if the finger double-clicks anywhere on the screen, the image can be magnified in an instant (this feature also applies when recording video).

Frequently Asked Questions

1. The mobile device and the remote control cannot be connected.

① See if the status of the signal icon changes

2. Stuck or prone to uncontrolled disconnections in graphic transmissions.

① Adjust the angle of the antenna to align with the airplane without any obstruction in between.
② Change of flying site, do not fly near tall buildings and cell towers.
③ Update the latest firmware of the aircraft.

3. Unstable hovering of the aircraft.

① Change the flying site, do not fly near tall buildings and signal towers.
② Do compass calibration and leveling.
③ Determine whether the wind is too strong to affect the flight.
④ Judge whether the wind blade and arm are deformed.

4. Inaccurate GPS accuracy of the aircraft or inability to pass the GPS accuracy test.

① Search GPS up to 8 and above in outdoor open area.
② Close walk around the vehicle.
③ Replacement of mobile equipment.
④ Do not test under high floors.

5. Batteries not charging.

① Re-plugging the charger and battery.
② Replacement of the charger.

6. Short flight time.

Over-charging and over-discharging of the battery or high temperature environment will easily lead to a reduction in battery life, it is recommended to keep the battery at about 60% of the remaining power, and then fully charged before use.

7. Poorly photographed.

① Check to see if the lens protection film has been removed.
② Use in a well-lit environment.

8. The lens is hazy and foggy.

① Lens fogging due to humidity, change aircraft storage location.
② Place desiccant in the protective cover of the head when storing.

9. Loss of pictures or videos taken.

Recorded video should be ended, otherwise the video may be corrupted or lost.

Accessory List
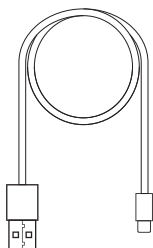
Type-C Charging Cable
X2
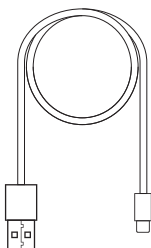
Type-C Data Cable
X1
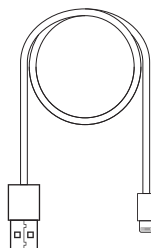
Apple Data Cable
X1
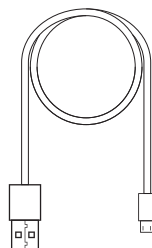
Android Data Cable
X1

Propeller A X4

Propeller B X4

For Ages 12+

S-X1
AERIAL DRONE

Video demonstration
of drone operation

• In order to ensure the requirements of electromagnetic environment of aviation radio stations, (prohibited in the range of 10 kilometers on each side of the center line of the airport runway and 20 kilometers at each end of the runway) as well as civil aviation flight paths and routes. The use of models and drones is prohibited. The use of all types of models and drones is prohibited in the no - fly zones issued by the relevant national authorities,

• In order to ensure the electromagnetic environment of aviation radio stations, it is prohibited to use all kinds of model remote controls in the area with a radius of 5,000 meters around the center of the airport runway. During the period of radio control orders issued by the relevant state authorities, the use of model remote controllers in the area should be stopped as required.

Instruction Manual X 1

Care and Maintenance

1. Always clean this product with a clean, soft cloth.Before cleaning, please turn off the power of the toy to ensure safety.When cleaning, use a soft, damp cloth to gently wipe the surface to avoid damage.
2. Avoid exposing this product to sunlight or heat.
3. Do not immerse the product in water, or allow water to enter the electronic parts, batteries and connectors of the toy,as this may cause damage to the electronic parts.
4. check the plug and other accessories regularly, if you find any damage, please stop using it immediately until it is completely repaired.

Drone Handbook

Why do drones go out of control when using a remote control?

1. Operational error:

a. The operator may accidentally press the wrong buttons or may not yet be familiar with the directional control of the joystick, causing the drone to behave differently than expected.

b. The operator may confuse the two modes of directional control of the UAV, i.e., normal mode and headless mode.

2. Signal interference: If there are many wireless signals or signals from other devices nearby, they may interfere with the connection between the remote control and the drone.

3. Low battery: Low battery of the remote control or drone may affect their performance, resulting in ineffective control or delayed response.

4. Excessive distance: If the drone flies out of the maximum control range of the remote control, the connection with the remote control may be lost.

5. Environmental factors: Strong winds or other environmental factors may affect the drone's flight path, making it appear to be out of control.

6. Hardware malfunction: Some components of the remote control or drone may malfunction or become damaged, causing them to not work properly.

> ⚠ If you are experiencing this situation, it is recommended to find a safe place for an emergency landing and then troubleshoot and deal with it. If possible, consider flying again in an area with no signal interference and always make sure the batteries in the remote control and drone are fully charged.

Overview of appendices

General Information

1. List of items, including qualified accessories:
 - Model: S-X1 Propellers; Weight (4 pairs): 6.3 grams; Dimensions: 65.8 mm X 4.6 mm X 2.35 mm;
Maximum Speed:11.000 RPM
 - Model: S-X1 Battery (Model:ZN 982558); Weight (1):69 grams; Dimensions: 72 mm X 34 mm X 39 mm

2.List of drone combinations:
 - Combo 1:S-X1, S-X1 remote control
   Remote control auto pairing, manual mode.
 - Combo 2:S-X1, cell phone app (DW Drone)
   App Pairing: automatically pair with drone after clicking app control button, manual mode.

3.Distinguishing by similar products from the same manufacturer:
 - Similar products from the same manufacturer can be distinguished by product model and exterior color.

MTOM Statement

1. The Maximum Take-Off Mass (MTOM) of the S-X1, including the aircraft, propellers, battery, is 237 grams, meeting the requirements for Category C0. No additional payloads are permitted.
2. To ensure your S-X1 drone complies with C0 regulations, adhering to the maximum take-off weight limit is critical. Users must follow these instructions:

Drone Handbook

- OVERWEIGHT WARNING: Failure to comply with the above requirements may result in reduced flight stability, operational difficulties, and increased risk of accidents. In addition, the product will no longer meet C0 requirements.
- COMPLIANCE: Ensure that all local and international aviation regulations are followed when operating the drone to avoid legal liability and potential safety hazards.

Equipment for remote control of drones

1. Remote Control Model: S-X1 (Firmware Version: V1.0 / Hardware Version: V1.1)
2. App: DW Drone
   - The product comes with an App Manual, compatible with Android 6.0 and above, as well as iOS 9.0 and above.
3. Reminder Instructions
   - Low Battery Alert: Emits "beep beep beep" sounds as a warning.
   - Automatic Frequency Pairing: Issues a single "beep" to indicate successful pairing.
   - Headless Mode: Short-press the headless mode button on the remote control; a prolonged "beep" sound indicates activation of headless mode.
   - Speed Mode Switch: Press the speed mode button:Single "beep" = Slow mode, Double "beep beep" = Medium mode, Triple "beep beep beep" = Fast mode
   - Remote Control Activation: When turned on, emits two quick "di-di" sounds.

Loss of command and control link:

1. The S-X1 UAV can fly at a maximum altitude of up to 100 meters above the take-off point. When the drone reaches this altitude, the system will automatically prevent it from rising further, but it can still be operated in other directions.
   During flight, environmental factors or signal interference may cause the UAV to lose control and descend uncontrollably, making it difficult for the pilot to effectively control the UAV's ascent or other maneuvers, thus increasing flight safety risks.
   To ensure safety and prevent loss of the drone, users should fully understand and comply with the 100-meter altitude limit before operation. Please pay attention to the surrounding environment and fly in areas with strong signals to avoid flight risks.
2. How the drone reacts when the remote control is disconnected:
- The drone's indicator light will start flashing, then the drone will slowly descend.

Operator Health Precautions

1. When operating the drone, make sure the operator (you) is sober and alert and not under the influence of alcohol, drugs or other substances. In addition, avoid flying if you feel dizzy, fatigued, nauseous, or any other health condition that may affect the safety of the operation.

Drone Handbook

Ground Services - Related Guidelines

1. Handle energy storage (batteries) safely:
- When installing and replacing batteries, ensure correct polarity and avoid using damaged or incompatible batteries.
- Use the original charging cable when charging, avoid charging near flammable materials, and ensure that the charging ambient temperature is between 0°C and 40°C.
- Disconnect the power supply immediately after charging is completed to prevent overcharging.
- If the battery swells, leaks or other abnormalities, stop using it and deal with it promptly.

2. Cleaning and maintenance:
- Clean the exterior of the drone and the propellers regularly to ensure that there is no dust, dirt or foreign matter on the device.
- Check every part of the UAV, especially the moving parts and connection points, to make sure there is no wear or damage.

3. Calibrate before takeoff:
- Make sure the drone is placed on a level surface before turning on the drone and remote control.
- Follow the steps in the manual for one-button calibration and frequency pairing to ensure the drone's flight attitude is accurate.

4. use of plugs and protective covers:
- Protect the electronic interface and plug from dust and moisture when using and storing the remote control and other accessories.

5. Selection of flight environment:
- Choose an open and unobstructed environment for flying, avoid flying in crowded or animal-infested areas.
- Avoid flying in extreme weather conditions such as strong winds, rain, snow or extreme temperatures.

Transportation and storage of drones, equipment for remote control of drones, and batteries.

1. Packaging of the drone and remote control:
- Pack the drone and remote control using the original packing materials or equivalent protective materials to prevent shock or pressure damage during transportation.
- Ensure that each component of the drone and remote control is securely fastened to avoid damage due to movement.
2. Safe transportation of batteries:
- Avoid exposing the battery to extreme temperatures or direct sunlight to prevent overheating.
- Comply with local transportation regulations, especially regarding lithium batteries.
3. storage environment:
- Store the drone and remote control in a dry, clean and temperature-appropriate environment, avoiding humidity or extreme temperature conditions.
- The storage area should be away from any potential heat sources such as heaters or direct sunlight to prevent material deterioration or equipment damage.

Drone Handbook

4. Long-term battery storage:
- If the battery is not to be used for an extended period of time, keep the battery at approximately 50% charge and avoid fully charging or completely discharging the battery.
- Regularly check the condition of the stored batteries, charging and discharging them at least once every three months to keep them active and safe.

5. Inspection and Maintenance:
- Regularly inspect the stored drone and remote control for any signs of physical damage or abnormal functioning.
- Ensure that all connections and interfaces are clean and dust-free to prevent corrosion or poor contact during long - term storage.

Post-Flight Operations - To ensure the safety and performance of the S-X1 drone after each flight, the operator must perform a thorough visual inspection, including checking the battery and all critical components. Detailed inspection steps are listed below:

1. Battery inspection:
- Visual inspection: remove the battery and carefully inspect the battery case for signs of damage, distortion, leakage or bulging.
- Touch Inspection: Gently touch the surface of the battery to check for abnormal temperatures (too hot or too cold).
- Connector Check: Check the battery connectors and wires to make sure they are intact and show no signs of looseness or poor contact.
- Battery level check: Use the battery level detector or the drone's built-in power display function to check if the remaining power is normal.

2. Body check:
- Appearance Inspection: Visually inspect the drone's fuselage for cracks, scratches, or other physical damage, especially in the arms and propeller mounting areas.
- Structural Integrity: Gently shake the UAV to check for loose parts or unusual sounds to ensure that the UAV is structurally sound.
- Camera Inspection: Inspect the surface of the drone's camera to ensure it is clean and free of scratches or other damage to ensure proper operation.

3. Propeller Inspection:
- Appearance Inspection: Check the propellers for cracks, bends or other damage. If damaged, replace the propeller immediately.
- Installation check: Make sure the propeller is securely installed and not loose. Check that the propeller locking mechanism is working properly.

4. Motor Inspection:
- APPEARANCE CHECK: Visually inspect the motor housing for any signs of damage or deformation.
- Rotation Check: Gently manually rotate each motor to check for smooth operation without any stalling or abnormal sounds.

5. Wiring and Connector Inspection:
- Visual Inspection: Check all internal and external wiring and connectors of the drone to ensure that there are no breaks, wear and tear, or looseness.
- Connector check: Make sure all connectors are firmly connected with no signs of looseness or poor contact.

6. Remote control inspection:
- Appearance check: check the remote control case for damage or cracks.
- Function check: open the remote control and check if all buttons and levers are working properly to ensure proper connection with the drone.

Summarize:
By following the detailed inspection steps outlined above, operators can ensure the safety and performance of the S-X1 drone after every flight.
Regular visual inspections help to identify potential problems early so that timely maintenance and repairs can be performed, ultimately extending the life of the drone.

* All information in this manual has been carefully proofread for accuracy and we reserve the right of final interpretation in the event of any typographical errors or omissions.

FCC 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.

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 and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The device can be used in portable exposure condition without restriction.