14+

# X11-GPS

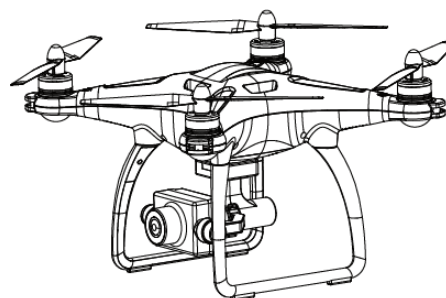## INSTRUCTION MANUAL

For any assistance, please contact SIMREX
Email: simrexservice@outlook.com

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## Flight safety precautions

Before the flight, please know safety precautions first, familiarize yourself with your aircraft and then operate.
1. This is not a toy and it is not for children under 14 years old.
2. Do not touch the rotating propeller, it may cause injury.
3. Please take a safe distance from your aircraft during the first flight to avoid damage caused by improper operation.
4. Do not fly near crowds.
5. Do not fly when the weather is bad.
6. Please keep the aircraft in sight, away from obstacles, high-voltage lines, trees, water, etc.
7. Do not fly in the relevant laws or restricted no-fly zones.
8. Do not fly within the Arctic Circle.
9. Do not fly in a place where the electromagnetic environment is complicated, such as a base station or a transmission tower light. Otherwise, the GPS signal may be weak or the remote control may be disturbed, causing the aircraft to become inoperable.

## Caveat ⚠

Keep a safe distance from the propeller that rotates at high speed to avoid the risk of streaking and cutting.

Tips!
The video recorded in SD is best played on the computer.

---

20M

Aircraft

Take-off location

## Headless mode

» Press the headless mode button to lock the aircraft in the takeoff direction.
» At this time, the aircraft is no longer in the direction of the head and the tail of the aircraft. Regardless of the angle of the aircraft at any angle, the direction of the nose is taken forward when the aircraft takes off.
» Press again to exit headless mode.
Note: Please do not enter headless mode in strong magnetic environment.

## Remote control left and right hand conversion

Press and hold the remote control one-button unlock/landing button, then turn on the remote control power switch to switch between left and right hands. The remote control display shows the left hand throttle of MODE2 and the right hand throttle of MODE1.
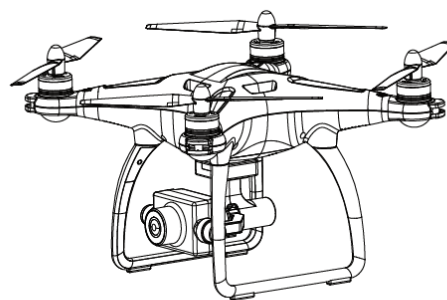
One button to unlock/land

**14+**

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One button to unlock/land

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## One button unlock / One key landing

The remote control and the aircraft are successfully matched, and the search star is completed. The aircraft is in the safe flight state of the GPS. Press and hold the unlock/landing button to hear the drop button. At this time, the aircraft is automatically unlocked and then the throttle can be pushed off. During the flight, long press the unlock/landing button, and when the button is released, the aircraft automatically enters the landing. After landing on the ground, the motor stops and locks. During the landing, the throttle stick pushes up the aircraft to release a key drop.

Long press the
unlock/landing button
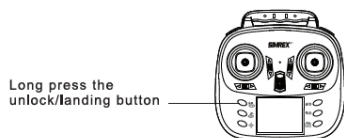
## One-key return

» The aircraft left the takeoff position 20 meters. Press the one-button return button.
» The left and right arm lights at the rear of the aircraft are bright red, and the height of the aircraft is less than 20 meters. After climbing to 20 meters, the return flight begins. If the height is more than 20 meters, it will directly enter the return flight.
» The aircraft returns to the take-off position and begins to land after a slight hover. The motor automatically shuts off after landing on the ground.

## Table of Contents

---

Fly in Open Areas + Strong GPS Signal + Maintain Line of Sight + Fly Below 400 feet(120m)

Avoid flying over or near obstacles,crowds,high voltage power lines,trees, airport or bodise of water.

DO NOT fly near strong electromagnetic sources such as power lines and base stions as it mat affect the onboard compass.

DO NOT use the drone in adverse weather conditions such as rain,snow, fog and wind speeds exceeding 10m/s or 22 mph.

No Fly Zone

Stay away from the rotating propellers and motors

It's important to understand basic flight guidelines, for the safety of both you and those around you.Don't forget to read the Safety Guidelines before flight.

## Turn off GPS manual control mode

» hen the flight GPS or geomagnetism fails, the aircraft is not artificially controlled to yaw, and when the rotation occurs, the long-press mode switch button enters the manual control, the GPS icon on the remote control display goes out, and the aircraft tail-arm light turns yellow when the aircraft enters. The fixed height mode attempts to fly by manually controlling the safe landing of the aircraft, recalibrating the magnetic compass, and if the fault persists, please contact the dealer for resolution.

## Start your first flight

1. Place the connected aircarft horizontally on the ground ensure that the tail of the aircraft is facing you and the head of aircraft is at the front.
2. As shown in the figure, at the same time, move the joystick to the lower left corner and the lower right corner respectively, and the motor starts. Again, as shown in the figure, the rocker is used to emergencyly close the motor
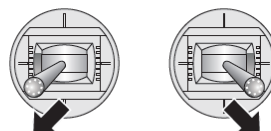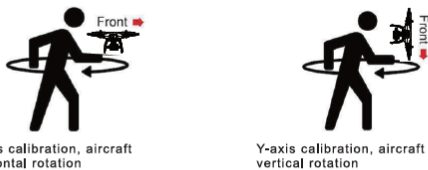
X-axis calibration, aircraft horizontal rotation

Y-axis calibration, aircraft vertical rotation

## Low electricity return and electronic fence

» The aircraft has an electronic fence. The maximum flying distance is 500 meters and the height is 200 meters before the battery is fully charged or has not entered the low-voltage protection.
» When the aincraftenters the first low-voltage,it will return to the distance within a radius of 50 meters, the height dropped to 20 meters, if the aircraft does not exceed the electronic fence, it will not enter the return flight.
» The aircraft can still operate autonomously in the electronic fence, but it cannot enter the following flight modes such as following, headless, and return.
» When the aircraft enters the secondary low-voltage in the electronic fence and will land in place.
⚠ Attention: The aircraft enters the low electric return flight, even in the electronic fence also must land as soon as possible, in order to avoid the battery the over-discharge phenomenon.

## Gyroscope Calibration

1) Protect  frame, the flight attitude can be corrected by horizontal calibration.
2) As shown in the figure: Move the left and right joysticks to the lower left corner at the same time for 1–2 seconds. At this moment, the four-point indicator of the aircraft flashes rapidly. The aircraft enters the horizontal calibration and waits until the four-point indicator of the aircraft lights up. The horizontal calibration is successful.
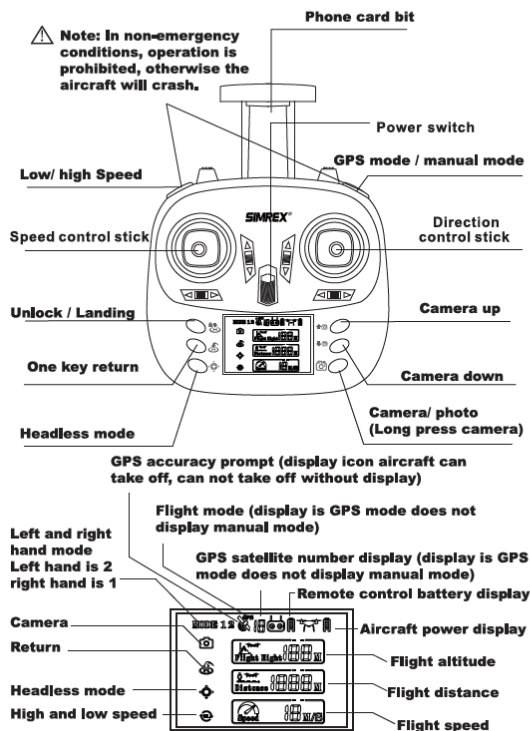
## Machine packing list



| | | | |
|---|---|---|---|
| Instruction manual x1 | Aircraft x1 | USB charging cable X1 | remote control x1 |
| lithium battery x1 | propeller x8 | Phillips x1 screwdriver | Bull bars x4 |
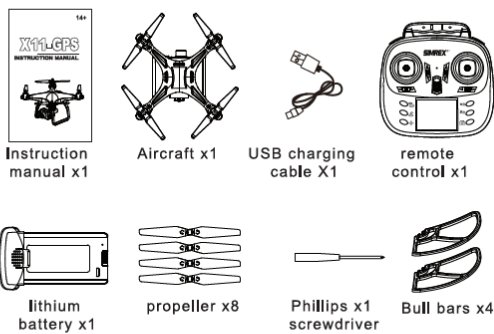
## Specifications

| specification | parameter |
|---|---|
| Product Size | Diagonal wheelbase 250mm |
| Flight weight | About 440g |
| flight time | About 20 minutes |
| Battery parameters | 7.6V 3150mAh |
| Flight distance | About 500 meters (depending on the mobile phone and the surrounding electromagnetic environment) |
| Flight height | 200 metres |

## Remote control function indication

At the same time press the emergency stop

⚠ Note: In non-emergency conditions, operation is prohibited, otherwise the aircraft will crash.

Phone card bit

Power switch

GPS mode / manual mode

Low/ high Speed

Direction control stick

Speed control stick

Unlock / Landing

Camera up

One key return

Camera down

Headless mode

Camera/ photo (Long press camera)



GPS accuracy prompt (display icon aircraft can take off, can not take off without display)

Flight mode (display is GPS mode does not display manual mode)

Left and right hand mode
Left hand is 2
right hand is 1

GPS satellite number display (display is GPS mode does not display manual mode)

Remote control battery display

Camera

Aircraft power display

Return

Flight altitude

Headless mode

Flight distance

High and low speed

Flight speed

follow me: Click ✵ to enter the multi-function mode, select ⟲ to enter the fellow me mode, the head asrcraft face to operator (WIFI connected mobile phone), the arcraft to moving follow operator. Click ☐ to exit the follow mode.
Points of interest surround mode: Click
✵ to enter the multi-function flight mode, click ⟲ to enter the point of interest around, the aircraft centered on the current position, automatically moves a distance to the radius, aileron joystick to choose left or right rotation, front and rear rocker control flight Radius, click ☐ to exit the point of interest surround mode,Aircraft Calibrated Accelerometer: Used to calibrate the installation error of the aircraft, which is helpful for flight stability. Please make sure the aircraft is placed horizontally during calibration. Click ⚙ to enter the aircraft settings and click `Calibrated accelerometer` to enter the calibration accelerometer. At this time, the aircraft four-point indicator will flash fast. After the corner lights flash, the APP interface exits the acceleration calibration and the calibration is completed. Keep the aircraft stationary during the calibration.
Aircraft Calibration Geomagnetism: For the first flight, it is recommended to calibrate the geomagnetism, calibrate the geomagnetic energy to make the aircraft fly back more accurately, and calibrate the geomagnetic field to be conducted in an open space outdoors. Do not calibrate in an environment surrounded by indoor, high-voltage lines, iron ore, and metal.
Point ⚙ enters the aircraft setting, click to enter the calibration geomagnetism, APP prompts to calibrate the X axis, at this time, the red light of the rear arm of the aircraft is long, the horizontal rotation of the aircraft waits for the green light of the rear arm light to enter the Y axis calibration, and the APP prompts to calibrate the Y axis. The head rotates vertically upwards until the rear arm light flashes normally. The APP exits the calibration interface.

| Pointing flight | Multi-flight | Waypoint | Delete waypoint | Waypoints sent |

**Waypoint planning model**

1. Pointing flight:

Click the pointing flight icon to enter the pointing flight,mode click on the current map to select the aircraft pointing arrival position, and click to send the waypoint command, and the aircraft will immediately fly to the pointed waypoint and hover. Click the button to delete the current waypoint.

2. Multi-task execution

Click to enter the multi-point flight mode, set multiple waypoints on the APP interface, and click to send the waypoint command. The aircraft will be executed one by one in the order of the waypoints. After the aircraft performs the last waypoint, it will return to the waypoint before planning. position. Press the button to delete the current waypoint.

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## Remote control and aircraft binding

1. The aircraft is loaded with batteries, placed on a level ground, aircraft auto auto bihding mode. and the yellow light of the rear arm lights flashes quickly.



Yellow light
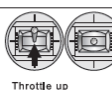
2. Turn on the remote control and hear "DI". The throttle stick push up to the top and then push to the bottom. The remote control will sound "DI"againbinaing succeed. the red and green lights flash alternately at rear of drone, and get into signal reception mode.
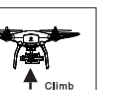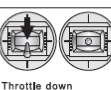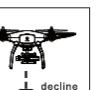
## First flight command
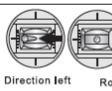
Aircraft operation method:

accelerator



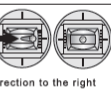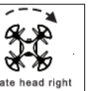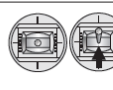| Throttle up | Climb | Throttle down | decline |

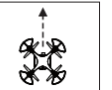direction



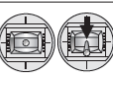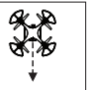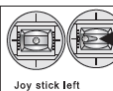| Direction left | Rotate the head to the left | Direction to the right | Rotate head right |

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Lift



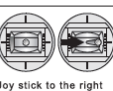| Lift up | forward | Lift down | backward |

aileron



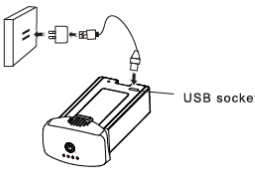| Joy stick left | Fly to the left | Joy stick to the right | Fly to the right |

## Charging batteries

The charger is designed to charge the LiPo battery safely.
1. Connect the charger to the AC power supply 100-240V, 50/60Hz. Use the power adapter if necessary.
2. The optimal charging temperature range is 5°-40°.
3. Please use a 1.5-2A charger such as a mobile phone charger to reduce charging time.
4. Remove the USB cable from the package and insert the other end of the phone charger into the USB port of the battery.
5. The indicator light on the battery lights up to indicate that charging is in progress, and the red light is off indicating charging is complete.
6. Charging time is about 350 minutes.



USB socket

Adapter Not Included

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| Waypoint planning | follow | Points of around | Exit mode |

Before taking off, please understand the meaning of each button operation and check the aircraft battery voltage flight.

Click the unlock button, the button turns red, and the aircraft starts to idle.

Click again then it lock and stap moving.

After unlocking, press this button to take off, the aircraft automatically climbs to a height of about 1.5 meters and hover.

The arrow points daon as the button of one key landing, and the aircraft automatically lands.

Press this key to return to the takeoff point

Click to enter the multi-function flight mode, you can choose waypoint planning, follow, points of interest around , click to exit the multi-function flight mode.

Waypoint planning mode: Click to enter the multi-function flight mode, click the to enter the waypoint planning, APP from the image transmission mode to the map mode, then havea waypoint setting dialog box, the waypoint planning setting fence for the mobile phone coordinates 120 A radius of meters beyond the distance will limit access.

The blue point on the map is the coordinate position of the controller and the red point is the coordinate position of the aircraft, and the scale of the map can be enlarged or reduced as needed.

## APP Operation Instructions

**Ready**

Scan QR code to download and install control software for iPhone and Android.



Google play          360          ios

**Instructions:**

Open the mobile phone wifi to retrieve the wifi name at the beginning of "SIMREX-X11" and connect it. Then open the control software. At this time, the mobile phone can be clipped on the mobile phone bracket and used as a picture transmission, and you can also directly control the aircraft.

Control interface diagram



- Rise and fall speed
- Flight height
- Map/image transfer
- Flight distance
- Flying speed

| | | | |
|---|---|---|---|
| return | Number of GPS | Signal strength | Aircraft parameter settings |
| GPS status | Aircraft power | Joystick hidden/unhidden | |
| Flight mode | One-key return | one key to take off/landing | Unlock/Lock |
| Taking pictures | Taking video | Photo Gallery | |

Hover/Lock

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## Note ⚠️

All instructions and warnings must be strictly followed. Improper handling of LiPo batteries may cause fire, personal injury or property damage.

1. Please do not exceed the recommended charging voltage and current. If the battery starts to swell under any circumstances, stop using it immediately. Failure to do so may result in fire.
2. If the battery is severely deformed or broken due to improper operation, stop using it immediately. Failure to do so may result in fire.
3. Do not put the battery into fire or heat the battery.
4. The battery must be stored at room temperature and dry place.
5. Do not store the battery in or in direct sunlight.
6. Do not pierce the battery case with a sharp object and avoid hitting the battery.
7. Do not use a nickel-cadmium or nickel-metal hydride battery charger. Rechargeable battery charge with an incompatible charger may cause a fire.
8. When the battery voltage is lower than 7V, the flying power will be greatly reduced, please charge in time.
9. When the battery is not used for a long period of time, please charge the battery to a single 3.7V/two sections of 7.4V and store in a dry environment.

## Propeller and protection frame installation

1. Install the propeller into the brushless motor in the direction of the arrow and disassemble the propeller according to the indication of the unlocking on the propeller. After the propeller is in place, it can be tightened with light force. Do not use too much force to avoid disassembly.
2. If you do not have flying experience, please remove the decorative parts and install a protective frame to prevent the propeller from hitting people or other objects;
3. Use a screwdriver to loosen the screws under the card slot, then push the protection frame into the card slot and tighten the screws with a screwdriver.
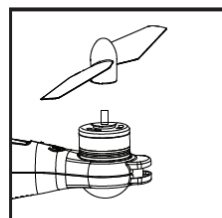


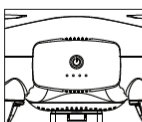A propeller to A engine arm
B propeller to B engine arm

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## Aircraft power indicator

| Indicator status | Electricity |
|---|---|
| ● ● ● ● | 100% |
| ● ● ● | 75% |
| ● ● | 50% |
| ● | 25% |



## Aircraft taillight status indication

| Attitude mode | LED lights | Instructions |
|---|---|---|
| Power automatc thsoeition | ●●●●●●●● | Rear light yellow flash |
| Satellite signal searching | ●● ●● ●● ●● | Alternating red and green, indoor mode or waiting for satellite status |
| Satellite signal searching done | ●● ●● ●● ●● | 2 Green-dark satellites with more than 6 satellites can fly safely |
| follow me | ———— | Green light, follow mode |
| Points of interest around | ● ● ● ● | Green light flashes slowly, interest point surround mode |
| Return flight | ———— | Red light, return mode |
| A low-level electricity | ● ● ● ● | The red light flashes slowly |
| Secondary low electricity | ●●●●●●●● | The red light flashes automatically to land. |

**Special Note:**
1. For the first flight, it is recommended to recalibrate the magnetic compass to ensure the flight is stable.
2. The calibration needs to find a flat site, to ensure the level of the aircraft and the ground as much as possible.
3. After the aircraft enters the horizontal calibration procedure, it is necessary to keep the aircraft stationary until the calibration is successful.

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## Calibration magnetic sensor

» Long press the gear button, the remote control emits a drip sound, the rear arm lamp of the aircraft lights red, and the sensor is calibrated to geomagnetism.
» The aircraft is horizontally rotated 360 degrees to calibrate the X-axis. When the rear-arm lamp turns green, the X-axis calibration completes the aircraft's further head-up 360-degree rotation.
» After the aircraft, the light returns to the green light slowly flashing (with a star) or the red light green light alternately flashing (searching for a star) state, the calibration is completed.



Long press the gear button



X-axis calibration, aircraft horizontal rotation

Y-axis calibration, aircraft vertical rotation

## Precautions

This product is not a toy. Please read the instructions carefully for initial use or be instructed by someone with flying experience.
The blades must be properly installed, otherwise the aircraft will not be able to fly.
Please recalibrate the magnetic sensor if you change another playing place.
Automatic return operation cannot be performed when there is no GPS signal or attitude mode.
If there is a secondary low voltage alarm, please fly the aircraft in its own direction and land it as soon as possible.
Wind blade damage will affect the flight. Please replace it in time.

## Warning for Android:

Because each Android phone uses a different 5G module, resulting in a large difference in distance, some mobile phones have a difficult transmission distance of 500 meters.
There were no 5G modules in individual mobile phones and it was not possible to connect to the aircraft's 5G WIFI. We suggest replacing smartphones launched after 2017.

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## Warning：

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a
Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are
designed to provide reasonable protection against harmful interference in a
residential installation. This equipment generates, uses 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 a particular installation.
If this equipment does cause harmful interference to radio or television reception,
which can be determined by turning the equipment off and on, the user is
encouraged to try to correct the interference by one or more of the following
measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different
from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.
NOTE: This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter

### RF Exposure Statement

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20Cm the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with    any other antenna or transmitter