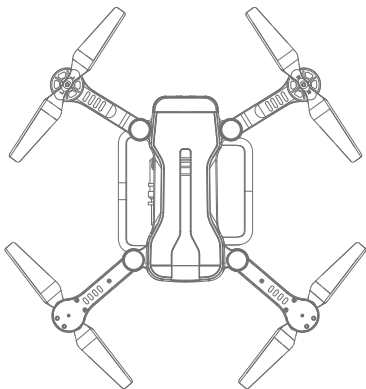


RAINBOW DRONE

Rainbow Drone User Manual V1.0





CONTENT

Notice	1
Safety Precaution	1
1.Flight safety tips	1
2.Flight environment	1
In the box	2
Drone Components	3
Specification	4
Pre-flight preparation	5
Battery Charging	5
Start the Aircraft	5
Download APP	5
APP Connection	5
Instruction	6
Icons	6
Joystick Setting	8
Remote controller instruction	9
Controller connection	10
Controller operations	10
Charging	11
Safety Precautions	12
Hints and Tips	12
Warning	12

NOTICE

In order to fly safely and responsibly, please stay informed on the rules regarding remote controlled aircraft in your local region, and follow these regulations at all times.

SAFETY PRECAUTIONS

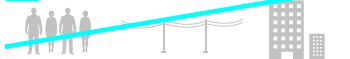
1. Flight safety tips

- (1). Please ensure fly in an open wide area and away from the crowd, ponds, buildings, trees, towers, and other dangerous materials.
- (2). If there is a rapid drift or rise continuously after Take-off, which due to the site, weather, electromagnetic interference or any other reasons, please press the "landing button" to the aircraft emergency landing!

2. Flight environment

- (1). Indoor flight is based on visual detection and ultrasonic positioning; flight areas need rich texture underneath.
- (2). Indoor flight needs in sufficient lighting environment (illumination > 15lux), do not fly on the ground that has strong reflection.

Note: Keep away from the crowd, trees, wires and buildings while flying.



Note: Do not fly under strong wind (>3m/s), rain, lightning, snow, foggy weather.

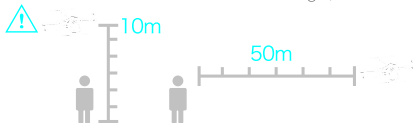


Note: Do not fly on highways, strong metal or other site with strong magnetic field.



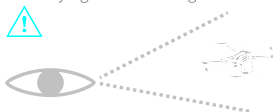
Take Note about the flight height and range

Please control the aircraft below 10 meters height, and within 50 meters range.



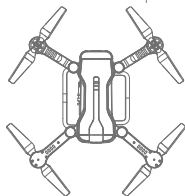
To fly within your sight

Avoid flying to tall buildings and other places that may block your visual.



IN THE BOX

Before using this product, please check whether all the following items are included in the product package.



Aircraft*1+Battery*1



Mini controller*1

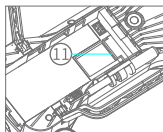
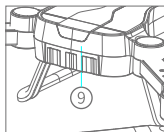
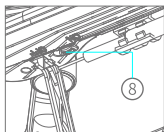
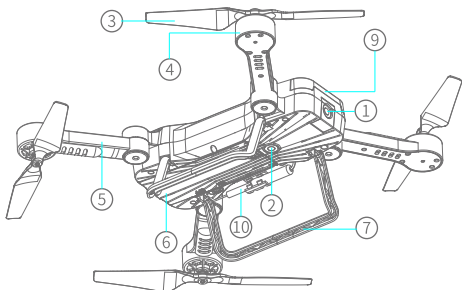


Cable*1



User Manual*1

DRONE COMPONENTS



- | | |
|------------------|-----------------|
| ① Camera | ⑦ Landing gear |
| ② Optical System | ⑧ Switch on/off |
| ③ Propeller | ⑨ Indicator |
| ④ Motor | ⑩ Antenna |
| ⑤ Arm | ⑪ TF card slot |
| ⑥ Battery | |

SPECIFICATION

Aircraft

Weight	120 g
Unfold size	174*174*63 mm
Folded size	122*86*44 mm
Diagonal distance	212 mm
Max ascent speed	2 m/s
Max declinespeed	1.5 m/s
Max flight altitude	4000 m
Max hover time	13 min
Working temperature	0~40 °C
Hover accuracy	Vertical: $\pm 0.5\text{m}$, Horizontal: $\pm 1.0\text{m}$
Optical flow positioning	Underneath need rich texture and scattered reflection material. Need sufficient lighting environment (reflectivity>20% , illumination>30lux).

Wireless

Frequency	2412-2462MHz
Standard	IEEE802.11b, 802.11g, 802.11n Draft
Channel width	Support 20/40 Mhz, default 20 Mhz
Security	128-bit encryption WEP, WPA-PSK, WPA2-PSK (Default encryption)
Transmission rate	11b: 11 Mbps; 11g: 54 Mbps; 11n: 135 Mbps;
Max range	720P>50 m without interference

Adapter

Input	5V - 2A
Output	4.3V - 1A

Camera

Sensor	H62
Camera view	FOV 60°
Frames	Video 20Fps; FPV 15 Fps
Video resolution	HD 1280*720
Support files system	FAT32
Format	JPG/MP4
Memory card	Suggested Class 6+, 4G+ TF card.

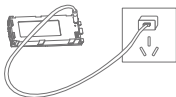
Intelligent battery

Capacity	970mah 3.59wh
Voltage	3.7V
Battery type	Li Po 1S
Charging temperature	5°C~40°C

PRE-FLIGHT PREPARATION

1. Battery charging

Plug the battery onto the charging port and then connect your mobile phone power supply through USB cable. When charging, the red indicator on the charging port is always on. After fully charged it turns off.



2. Start the aircraft

Power on: Turn the switch ON at the bottom of aircraft, it will power up and run self-checking automatically.

Power off: Turn the switch OFF at the bottom of aircraft.

3. Download APP

Use this drone requires installing the APP on mobile devices. Scan the QR code on this user manual or search and download "RAINBOW Drone" on APP store/ Android APP markets.

4. APP connection

Power up the drone and search WiFi "XT198-xxxxx" from the mobile device WIFI settings, then run the APP and click on Connect for use.



Note: Only for Android 5.0 or above or IOS 8.0 or above.

INSTRUCTION

Icons



User manual: Aircraft Operating Instruction



The local media library: Local images and videos storage



Homekey: Click to return to the main page



Photo: Click to take photo



Video: Click to take video.



Media library: Click to enter the camera media library



Sensitivity Settings: The higher the percentage, the more responsive the operation of the aircraft



Gravity mode: Click for Gravity sensor operation mode.



Trick mode: Included 360° roll mode, hand point flying mode



Interface button: click to switch on/off showing operating interface.



Setting: click enter to setting menu



Left hand mode: Means using Left hand mode now, click and change to Right hand mode.



Right hand mode: Means using Right hand mode now, click and change to Left hand mode.



Headless mode: Means using headless mode now, click and change to Ahead mode. The nose orientation before takeoff defaults the forward direction in headless mode.



Ahead mode: Means using Ahead mode now, click and change to headless mode.



Accelerometer calibration: Click for accelerometer calibration.



Take-off: Click and Confirm for take off, and then aircraft fly up to 1.2 meters height. After take off, the icon change to Landing button.



Landing: Click and Confirm for landing at current location, afterlanded, the icon change to Take off button.



360° Roll: Click and roll according to selected direction. After one rollover finished it will quit the roll mode automatically.



Forward Roll: Under 360° Roll mode, click this for Roll forward



Backward Roll: Under 360° Roll mode, click this for Roll Backward



Right Roll: Under 360° Roll mode, click this for Roll to right direction.



Left Roll: Under 360° Roll mode, click this for Roll to left direction.



Hand point flying mode: Draw out the flight path of drone on screen. (Not recommended for indoor use and such function is sensitive to wind; don't use this under windy environment)



Emergency stop: Click to stop the drone in emergency, propeller stop immediately.



Video library: Enter video library.



Select all: Click to select all or deselect all.



Download: Download selected media.



Delete: Delete selected media.



Share: Share selected media.

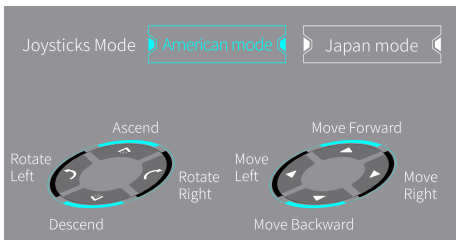


Exit: Click to exit the current page.

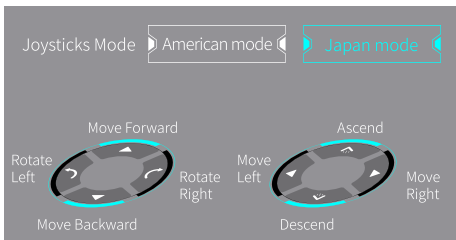
Joystick setting

Set your preferred joystick mode accordingly.

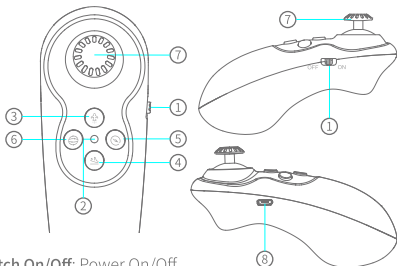
American mode: Left hand throttle, as shown in the figure below, rise / fall and L / R operations in this mode are on the left joystick, forward / backward and left / right on the right joystick.



Japan mode: Right hand throttle, as shown in the figure below, forward / backward and left / right in this mode are on the left joystick, rise / fall and L / R operations on the right joystick.



REMOTE CONTROLLER INSTRUCTION



- ① **Switch On/Off:** Power On/Off.
- ② **Indicator: Charging** --the red color indicator on, after fully charged red indicator goes off.
Binding -- the blue color indicator will blink, after connected blue indicator will always on.
Low battery power -- the red color indicator blink slowly, every 5 blinks give a alarm drips.
- ③ **Take-off:** Short press the take-off button, the aircraft is unlocked, the propeller rotates at a low speed, shortly press again the aircraft will take off to 1.2m height automatically.
- ④ **Landing:** Press and landing at current location.
- ⑤ **Roll Mode:** Press for roll mode, and tilt the controller bar forward ($>25^\circ$) for roll forward 360° . Tilt the controller bar backward ($>25^\circ$) for roll backward 360° . Tilt the controller bar to right ($>25^\circ$) for roll to right 360° . Tilt the controller bar to left ($>25^\circ$) for roll to left 360°
- ⑥ **Calibration:** Place the aircraft in a horizontal position, Press for calibration, indicator blink quickly until calibration done.
- ⑦ **Joystick:** After unlock, joystick control aircraft ascend and descend and turn right or left.
- ⑧ **Charging port:** connect to charging cable.

Controller connection

Power up aircraft and controller, they will connect automatically, after connected the indicator of aircraft keeps on and controller's indicator keeps blue, if connect failed the indicators will blink.

Controller operations

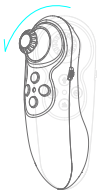
Forward: Tilt the controller bar forward, the larger the tilt angles the faster it flies.



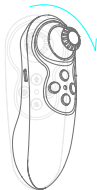
Backward: Tilt the controller bar backward, the larger the tilt angles the faster it flies.



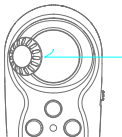
Left drift: Tilt the controller bar to left side, the larger the tilt angles the faster it flies



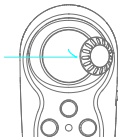
Right drift: Tilt the controller bar to right side, the larger the tilt angles the faster it flies



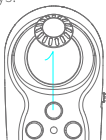
Turn left: Push the joystick to left side.



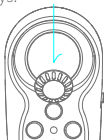
Turn right: Push the joystick to right side.



Ascend: Push the joystick to forward, the higher it pushed the faster it flies.

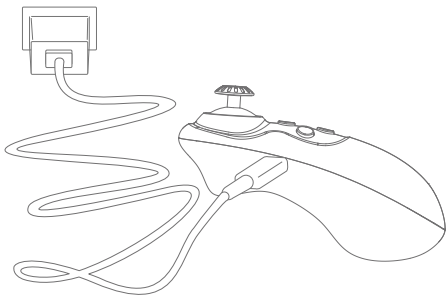


Descend: Push the joystick to backward, the lower it pushed the faster it flies.



Charging

Charge with DC 5V via micro USB cable, red indicator keeps on when charging, after fully charged it goes off.



SAFETY PRECAUTIONS

When the aircraft's indicator flashes, it indicates that the battery is low and the aircraft will automatically landing in current location. The maximum control distance of phone APP is about 50 meters. If the aircraft is flying out of the range and losing connection, the aircraft will automatically landing in current location.

HINTS AND TIPS

1. Press for one key take off, if the aircraft drift when ascending, please do the accelerometer calibration.
2. Press for one key take off, if the aircraft has no response please restart the aircraft. The reason of this condition is that aircraft did not remain stationary when the aircraft was turned on or when the flight was taking off, causing the aircraft failed to complete the gyro self-checking.
3. When the aircraft is out of control, please click Emergency stop.
4. If the propeller does not stop completely, do not press, push, or shake the aircraft, otherwise it might cause it out of control.
5. Do not fly in a dark environment or night, so as not to affect the operation of the aircraft optical system which might lead to out of control.



Please make sure to read the entire manual carefully, familiarize with product features and exercise before the actual operation. Improper operation may cause injury , or result in product damage and property damage.

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.

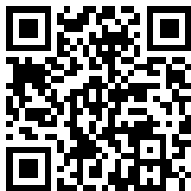
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate 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 between the radiator and your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter



Content is subject to change without further notice.

For latest manual please refers to our website:

www.simtoo.com/documents.php

If any question or advice please contact via email: info@simtoo.com