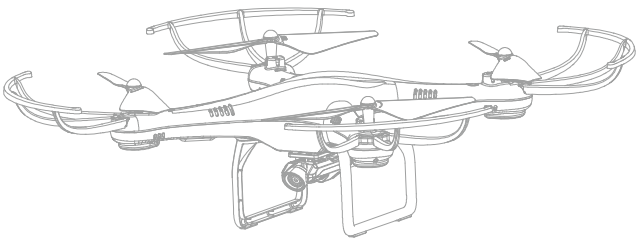
udi R/C®

PETREL FPV

Take aerial videos and photos with Camera



D10

14+ 2.4 GHz

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Notice

1. Important Statement:

(1) This product is not an ordinary toy but a piece of complicated equipment which is integrated with professional knowledge by mechanic, electronic, air mechanics, high-frequency emission etc., so it should be installed and adjusted correctly to avoid accidents. The user must always operate in a safe manner. We undertake no liability for human injury or property damage caused by improper operation as we could not control the procedure of installation, use and operation of this drone.

(2) This drone is suitable for experienced RC drone user aged 14 years or above.

(3) The flying field must be legally approved by your local government.

(4) We undertake no liability for those accidents caused by improper operation, use and control of the drone after sale of the product.

(5) We has entrusted the distributor to provide technology support and after-sale service. If you have any question about use, operation, repair etc., please contact your local distributor.

2. Safety Precautions:

Keep away from crowd when flying because a flying RC drone is very dangerous. Improper assembly, broken main frame, defective electronic equipment or unskilled operation all may cause unpredictable accidents such as drone damage or human injury. Please pay special attention to safety operation and have good knowledge of accident responsibility that the user may cause.

(1) Keep away from obstacles and crowd

The speed and status of a flying RC drone is uncertain and it may cause potential danger. So the user must keep away from crowd, tall building, power lines etc. when operating a flying RC drone. Do not fly a RC drone in rainy, storm, thunder and lighting weather for the safety of user, around people and their property.

(2) Keep away from humid environment

The drone inside is consisted of precise electronic components. Humidity or water vapor may damage electronic components and cause accident.

(3) Safe operation

Please operate the RC drone in accordance with your physical status and flying skill. Fatigue, listlessness and improper operation may increase the rate of accident.

(4) Keep away from rotating parts

Rotating Parts can cause serious injury and damage. Keep face and body away from rotating motors.

(5) Keep away from heat

The RC drone is made of metal, fiber, plastic, electronic components etc. Keep away from heat and sunshine to avoid distortion and damage.

(6) Please do not touch the hot motor to avoid being burnt.

3. Check List Before Flight

(1) Flying field must be spacious enough and we suggest at least 8M (length)*8M (width)*5M (height).

(2) Make sure the drone battery and transmitter battery are fully charged.

(3) Make sure the Left Stick of the transmitter in the middle position.

(4) Please strictly obey the order of turn on and turn off before operation. Turn on the transmitter power first and then turn on the drone power before flying; turn off the drone power first and then turn off the transmitter power when finish flying. Improper turn on and turn off order may cause the drone out of control and threaten people's safety. Please cultivate a correct habit of turn on and turn off.

(5) Make sure the connection is solid between battery and motor etc. The ongoing vibration may cause bad connection of power terminal make the drone out of control.

(6) Improper operation may cause drone crash, which may arouse motor defective and noise, and then effect the flying status or even stop flying. Please go to the local distributor to buy new parts for replacement so that the drone will return to its best status.

(7) The drone should be controlled within max control distance. Do not fly the drone near tall building, high voltage cable or other place with signal interference. Or may cause signal interruption and the drone will be out of control, which may result in accident.

SAFETY ADVISORY NOTICE
LITHIUM-POLYMER (LIPO) BATTERIES

LiPo batteries are different from conventional batteries in that their chemical contents are encased in a relatively lightweight foil packaging. This has the advantage of significantly reducing their weight but it does make them more susceptible to damage if roughly or inappropriately handled. As with all batteries, there is a risk of fire or explosion if safety practices are ignored:

- Charge and store LiPo batteries in a location where a battery fire or explosion (including smoke hazard) will not endanger life or property.
- Keep LiPo batteries away from children and animals.
- Never charge the LiPo battery that has ballooned or swelled.
- Never charge the LiPo battery that has been punctured or damaged.
- After a crash, inspect the battery pack for signs of damage. Discard in accordance with your country's recycling laws.
- Never overcharge the LiPo battery.
- Never leave the LiPo battery unattended during recharging.
- Do not charge LiPo batteries near flammable materials or liquids.
- Ensure that charging leads are connected correctly. Reverse polarity charging can lead to battery damage or a fire or explosion.
- Have a suitable fire extinguisher (electrical type) OR a large bucket of dry sand near the charging area . Do not try to extinguish electrical (LiPo) battery fires with water.
- Reduce risks from fire/explosion by storing and charging LiPo batteries inside a suitable container.
- Protect your LiPo battery from accidental damage during storage and transportation. (Do not put battery packs in pockets or bags where they can short circuit or can come into contact with sharp or metallic objects.).
- If your LiPo battery is subjected to a shock (such as a crash), place it in a metal container and observe for signs of swelling or heating for at least 30 minutes.
- Do not attempt to disassemble or modify or repair the LiPo battery.

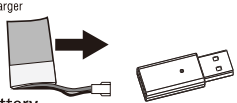
This drone is powered by a Lithium-Polymer (LiPo) battery.
If you do not plan to fly the drone for a week or more, store the battery approximately 50% charged to maintain battery performance and battery life.

Charging Instruction

1. Connect the drone battery with USB plug first and then choose one of the method as below picture shown to connect with USB plug. (prior to choose 2A, 5V charger)
2. The red USB indicator light keeps bright when charging.
3. The charging time is about 70 minutes. The light turns to green when fully charged.

Charging Methods

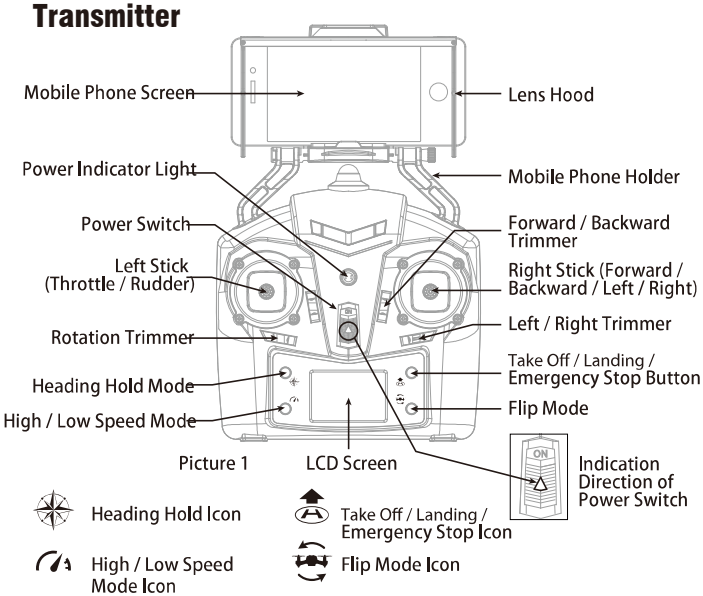
NOTE: For faster charging, it is recommended to use a 5V 2A Adapter (not enclosed) to charge the battery.



Li-Po Battery Disposal & Recycling

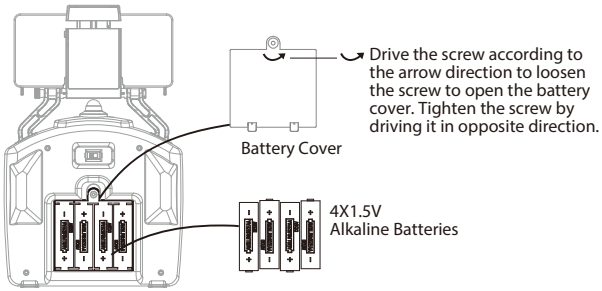
Wasted Lithium-Polymer batteries must not be placed with household trash. Please contact local environmental or waste agency or the supplier of your model or your nearest Li-Po battery recycling center.

Transmitter



Transmitter Installation:

Battery installation: open the battery cover on the back side of the transmitter and put 4 alkaline batteries (not included) into the box in accordance with electrode instructions.

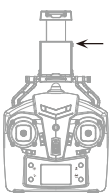


Picture 2

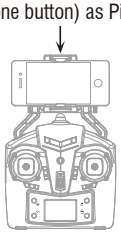
Notice :	1. Make sure the electrodes are correct. 2. Do not mixed use new and old batteries. 3. Do not mixed use different kinds of batteries. 4. Do not charge the non rechargeable battery.

Attaching your Mobile Phone to Transmitter

1. Press the self-locking switch on the top right side of the mobile holder and push the holder to a fully open position as Picture 3 shown.
2. Place the mobile phone facing frontward position, pull the mobile phone holder down and press tightly as possible to secure the mobile phone and transmitter (please note that do not touch the mobile phone button) as Picture 4.

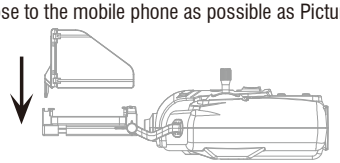


Picture 3



Picture 4

3. Insert the lens hood into the slot and make sure the lower edge of the lens hood is as close to the mobile phone as possible as Picture 5.

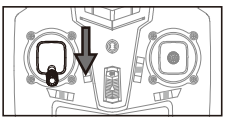


Picture 5

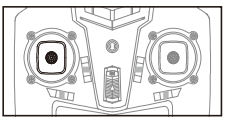
Calibration Instruction

Please follow below steps to calibrate the drone if the drone becomes imbalance after crashing during the flight, and can not be adjusted by trimmer button and cause difficult operation.

1. Power off the drone, then turn off the transmitter switch.
2. Turn on the transmitter switch, push the Left Stick all the way down to the lowest position (Picture 6) and then release. The Left Stick will back to the middle position automatically (Picture 7). The transmitter enters frequency pairing mode.

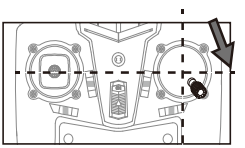


Picture 6



Picture 7

3. Power on the drone and put it on a flat surface in a horizontal position. The LED lights change from flash to solid bright, which indicates successful frequency pairing.
4. Do not move the Left Stick before successful calibration. Push the Right Stick as shown in Picture 8 and then release. The drone body lights flash, which indicates that the drone is calibrating. When the drone body lights remain solid, which indicates successful calibration.

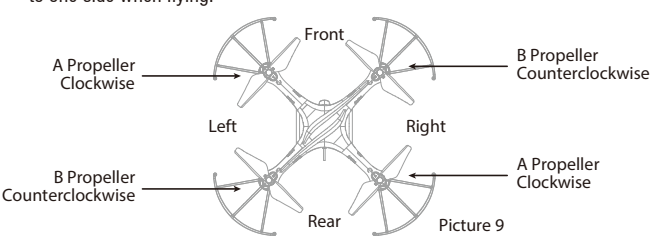


Picture 8

Notice: Fail to calibrate may cause loss of drone function.

Pre-Flight Instruction

1. The green LED lights are front and the orange LED lights are rear.
2. Power on the drone and check the direction of the rotating propellers. The left front and right rear A propellers rotating clockwise while the right front and left rear B propellers rotating counterclockwise.
3. Adjust relative transmitter Trimmer button to adjust the rudder if the drone tilts to one side when flying.



Picture 9

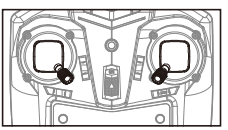
Pre-Flight Operation:

1. Turn on the transmitter switch and the LED indicator begins to flash rapidly. Push the Left Stick all the way down to the lowest position and then release. The Left Stick will back to the middle position automatically. The LED indicator starts flash slowly, which indicates the transmitter enters frequency pairing.
2. Install the battery to the mounted box and power on the drone.
3. Put the drone on the flat surface, the drone body lights turn from flashing to solid bright, which indicates successful frequency pairing.

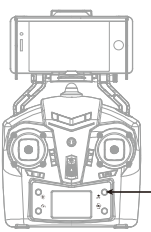
Important Notice: Please make sure the gyro of the receiving board is placed on the horizontal position after powering on the drone, so that the drone can work well.

Two Take Off Modes

1. Method 1 (Take off): Push the Left Stick and Right Stick as Picture 12 shown to start the motor and then release. Then push up the Left Stick to fly up the drone to certain altitude and then release the stick.
2. Method 2 (One Button Take Off): Press the Take Off / Landing / Emergency Stop Button, the drone will fly up automatically and keep flying at an altitude of 1.2 meters approximately.



Picture 10



Picture 11

Two Landing Modes

1. Method 1 (Landing): Push the Left Stick all the way down to the lowest position and hold it till the motors stop and the drone landing on the ground.
2. Method 2 (One Button Landing): Press the Take Off / Landing / Emergency Stop Button once shortly, and the drone will land on the ground automatically.

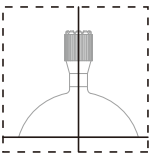
▲Emergency Stop: When the drone in emergency situation and going to hit the walking people or obstacle etc., press the Take Off / Landing / Emergency Stop Button immediately and hold it for more than 1s. The propellers will stop immediately.

Tip: Do not use the emergency stop function unless in emergency situation. The drone will fall down suddenly after all propellers stop.

Altitude Hold Mode

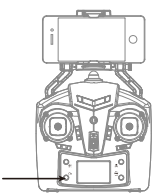
Altitude hold mode indicates that the drone maintains a consistent altitude while allowing roll, pitch, and yaw to be controlled normally. It makes it easier to control the drone for beginner and more stable for aerial photography.

Push the Left Stick up (down) to fly the drone up (down) at certain altitude and then release the Stick. The Stick will back to the center position (Altitude Hold Center) as the shown in Picture 14. And the drone will keep flying at current altitude. Repeat above steps if you want to change the drone altitude.



Altitude Hold Mode
Picture 12

High / Low Speed Mode



Picture 13

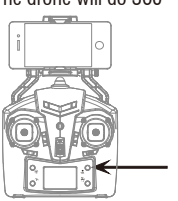
By default, the drone is in Low Speed Mode. Press the High / Low Speed Mode button and the transmitter will beep once and enter High Speed Mode.

1. MODE 1: Low Speed Mode is suitable for beginner.

2. MODE 2: High Speed Mode is suitable for expert.

Flip Mode

Press the Flip Mode button when the drone is flying, and you will hear constantly beep, which indicates flip mode is ready. Push the Right Stick to forward / backward / left / right to utmost and then release the stick. The drone will do 360° flip in corresponding direction. After that the drone will exit from flip mode automatically.



Picture 14

Tip: The flip function is unavailable when the drone in heading hold mode.

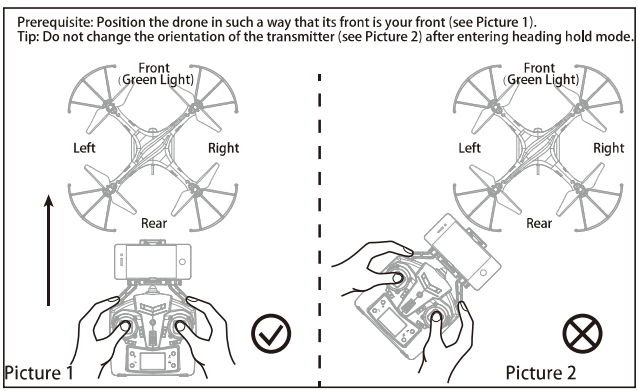
Warning: Flying field must be spacious enough when doing a flip, or danger may occur.

Heading Hold Mode

* Drones generally have a front and rear indicated by LED lights or colored propellers. By default, the users are required to tell the front and the rear of the drone when flying. Under heading hold mode, the users can operate the drone without worrying about the orientation (left is left and right is right all the time, regardless of where your drone is pointing at).

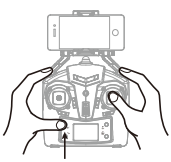
Heading Hold Mode is designed for beginners and users who fly the drone in daylight or at a far distance.

When the drone in heading hold mode, push the Right Stick to forward / backward / left / right, and the drone will fly to forward / backward / left / right accordingly.



To turn on Heading Hold Mode, press Heading Hold Mode button and the drone LED lights flash, which indicates the drone enters heading hold mode.

To turn off Heading Hold Mode, press Heading Hold Mode button again and the drone LED lights turn solid, which indicates the heading hold mode is off.



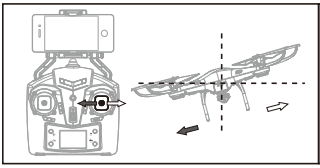
Heading Hold Mode Button

Picture 15

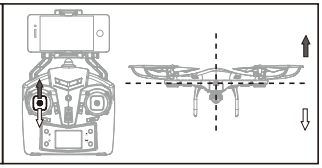
Low Battery Alarm

When the drone in low battery, the transmitter will beep constantly to remind the user to land the drone as soon as possible. The flip function will turn off automatically when the drone in low battery.

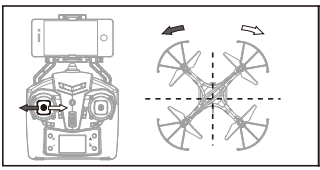
Flying Control



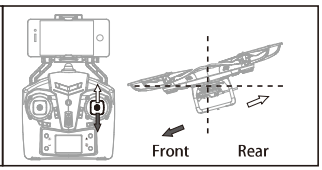
1. Move the Right Stick to the left to fly the drone to the left, and move the Right Stick to the right to fly the drone to the right.



2. Push the Left Stick up to fly the drone up, and pull the Left Stick down to fly the drone down.

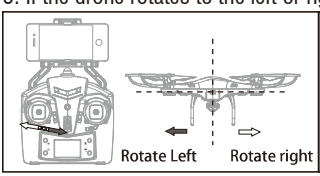


3. Move the Left Stick to the left to rotate the drone to the left, and move the Left Stick to the right to rotate the drone to the right.



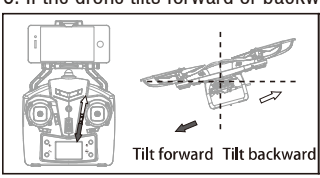
4. Push the Right Stick up to fly the drone forward, and pull the Right Stick down to fly the drone backward.

5. If the drone rotates to the left or right



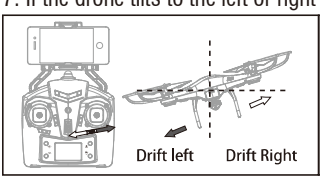
Move the Rotation Trimmer to the right till balance if the drone rotates to the left, and move the Rotation Trimmer to the left till balance if the the drone rotates to the right.

6. If the drone tilts forward or backward



Pull down the Forward / Backward Trimmer till balance if the drone drifts forward, and push up the Forward / Backward Trimmer if the drone drifts backward.

7. If the drone tilts to the left or right

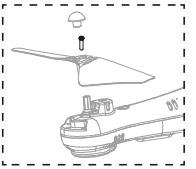


Move the Left / Right Trimmer to the right till balance if the drone drifts to the left, and move the Left / Right Trimmer to the left till balance if the drone drifts to the right.

Propeller Installation Diagram

Remove the propeller cap and screw from the propeller, then remove the propeller.

To install the propeller, sim at the hole and press the propeller down to the end, then lock the propeller by attached screw. Press down the propeller cap.



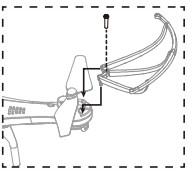
Picture 16

Propeller Guard Installation Diagram

Install the propeller guard to the drone and lock the propeller guard by attached screws.

Remove the screw from the propeller guard and pull out the propeller guard with moderate force.

Note: Fly the drone without the propeller guard can improve the power and flight time.

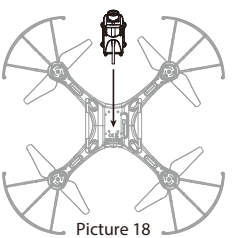


Picture 17

Camera Installation Diagram

To install the camera, aim at the buckle in the drone and push the camera with moderate force.

To remove the camera, pull out the camera from the buckle.



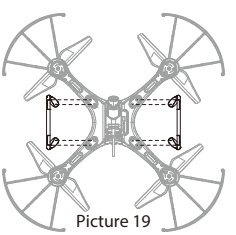
Picture 18

Landing Gear Installation Diagram

To install the Landing Gear, insert the Landing Gear's pillars into the drone body holes with moderate force as the diagram shown. Then lock the Landing Gear by attached screw.

To remove the Landing Gear, remove the screw first and then pull out the Landing Gear with moderate force.

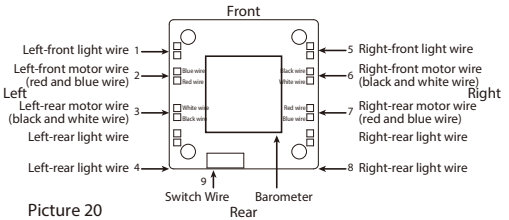
Note: Please ensure the Landing Gear can stand firm on the ground. Or the flight stability would be effected.



Picture 19

Instruction for Receiving Board

The drone works well only when the installation direction of the receiving board and the connection position of the wires the same as below picture:



Picture 20

Operation Instruction for Mobile Phone WiFi

Download and Install the APP: Flyingsee

The APP is suitable for mobile phone with iOS or Android system, please download from the mobile phone software store:

1. For mobile phone with iOS system, please search Flyingsee in APP Store.
2. For mobile phone with Android system, please search Flyingsee in Google Play.
3. Scan the QR code in the right side or the QR code in the color box to download Flyingsee.

ANDROID APP ON Google play

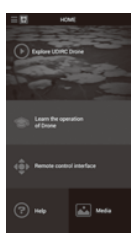
Available on the App Store

Frequency Pairing between Mobile Phone and Drone WiFi:

1. Install the battery to the mounted box and power on the drone. Put the drone on the flat surface.
2. Enter “set up” of the mobile phone, turn on WiFi (WLAN) and choose udirc-WiFi-..., return to desktop after successful connection.
3. Click the icon Flyingsee and click to enter the remote control interface for real time transmission.

Flyingsee

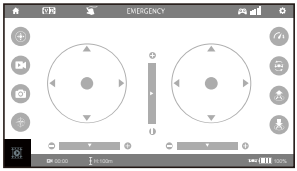
Click



Home Page

Real-time Transmission Interface

Picture 21



Virtual Control Interface

Picture 22

Click to enter Virtual Control Interface as Picture 22
At this time the drone LED lights change from flash to solid bright, which indicates successful frequency pairing and the drone is ready to be controlled via APP.

Introduction for APP Control Menu

Home Page

Click this icon and return to the home page.

Virtual Reality Mode

Click this icon to enter virtual reality mode (available for VR headset). Click this icon again to exit from virtual reality mode.

Tip: Do not use the emergency stop function unless in emergency situation.

Flight Route Setting Mode

Click this icon and it turns red. Draw a flight route in the right area. The drone will fly according to the flight route. Click the icon again to exit from Flight Route Setting Mode. The icon turns white.

EMERGENCY Emergency Stop

The icon is red by default. Click this icon and the propellers will stop immediately. The drone will fall down to the ground straightly.

TF Card

If there is a TF Card in the drone, the icon will show as .If there is no TF Card in the drone, the icon will show as .

Remote Control Signal

To show the drone's WiFi signal strength.

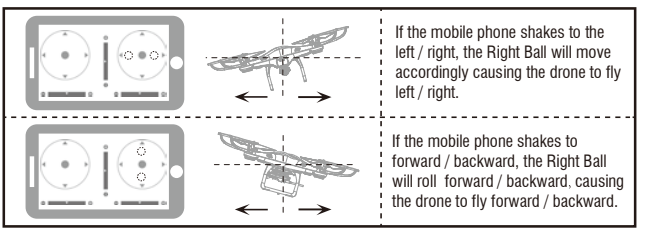
Setting

Click this icon to set some parameters, and click again to exit.

Click “Save” to save the trim setting.
Click “Reset” for factory reset.

Gravity Induction Mode

Click icon to enter Gravity Induction Mode, which is only available for flying left / right and forward / backward.



Video

Click this icon to record video. The recording time will show at the bottom of the screen. Click this icon again to finish recording.

Photo

Click this icon to take photo.

Heading Hold Mode

Click this icon and it turns red, which indicates that the drone enter Heading Hold Mode. Click again to exit from Heading Hold Mode. The icon turns white.

High / Low Speed Mode

By default, the drone is in Low Speed Mode “L”. Click this icon and then click “H” to enter High Speed Mode.

Flip Mode

Click this icon, the drone will do 360° flip and the icon will turn red shortly.

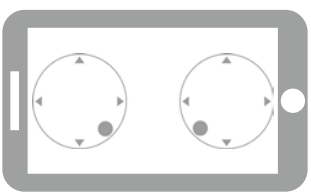
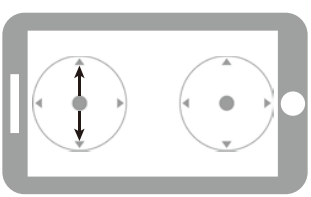
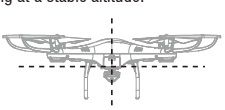
One Button Landing

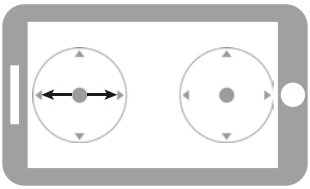
Click this icon and the icon turns red, the drone will fly down slowly and land on the ground. All propellers also will stop.

One Button Take Off

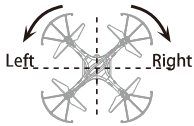
Click this icon and it turns red shortly. The drone will fly up automatically and stay flying at an altitude of 1.2 meters.

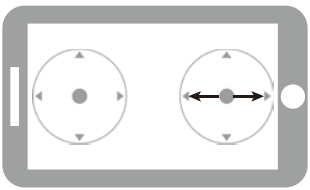
Hold Throttle

	Move the Left Ball and Right Ball as picture shown at the same time to start the drone. Or click to start the drone.
	To fly up and down Move the Left Ball up to fly the drone up and move the Left Ball down to fly the drone back down. The drone will stay flying at a stable altitude. 

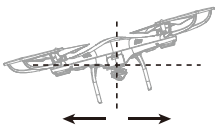


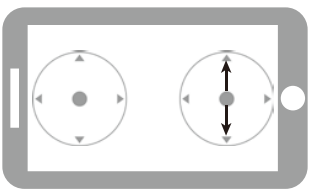
To rotate left and right
Move the Left Ball to the left to rotate the drone to the left. Move the Left Ball to the right to rotate the drone to the right.



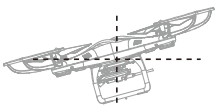


To fly right and left
Move the Right Ball to the left to fly the drone to the left and move the ball to the right to fly the drone to the right.

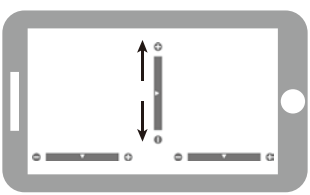




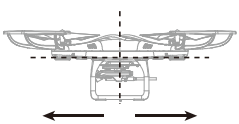
To fly forward and backward
Move the Right Ball up to fly the drone forward and move the ball down to fly the drone backwards.

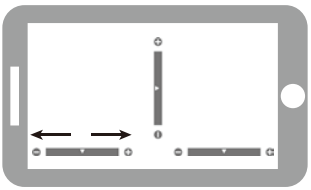


Trimming Adjustment

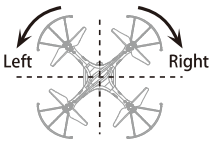


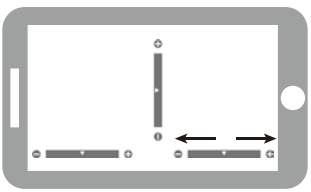
If the drone tilts forward or backward Click the "-" of the Forward / Backward Trimmer to adjust the drone till balance if the drone tilts forward. Click the "+" to adjust the drone till balance if the drone tilts backward.



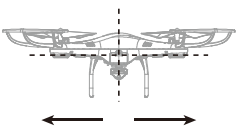


If the drone rotates to left or right
Click the "+" of the Rotation Trimmer till balance if the drone rotates left. Click the "-" to adjust the drone till balance if the drone rotates right.





If the drone flies left or right
Click the "+" of the Left / Right Trimmer till balance if the drone flies left. Click the "-" to adjust the drone till balance if the drone flies to left.



Note: 1. If you can not find the WiFi signal to connect, turn off WiFi and turn on again to search and connect.
2. The available WiFi control radius is 40m, please control the drone within this range.
3. When changing control method from mobile phone to transmitter, or transmitter to mobile phone, pull the Throttle Stick to the center position.

Media

Main Menu

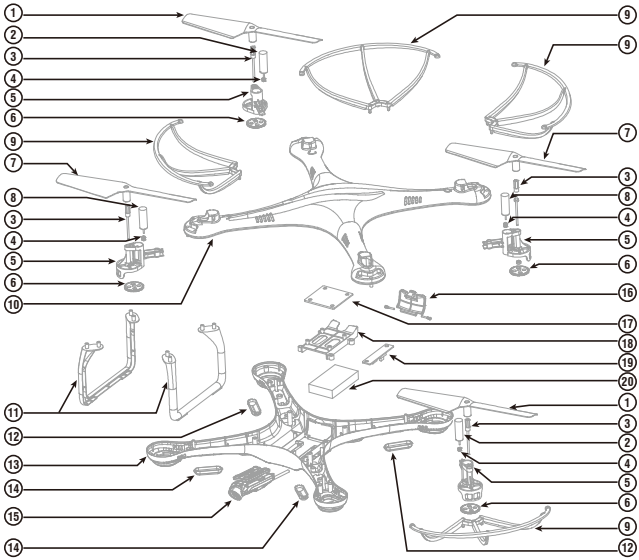
Picture 23

Media Interface

Picture 24

To view the photos and videos from . Or check the aerial photography data in your mobile phone.

Exploded View



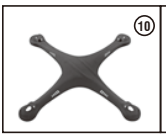
No.	Name	No.	Name	No.	Name
1	A Propeller (Clockwise)	8	Counterclockwise Motor (Black and White Wire)	15	Camera
2	Clockwise Motor (Red and Blue Wire)	9	Propeller Guard	16	Battery Cover
3	Drive Shaft	10	Upper Cover	17	Receiving Board
4	Motor Gear	11	Landing Gear	18	Main Casing
5	Motor Holder	12	Rear Lamp Cover (Orange)	19	Switch Board
6	Speed Gear	13	Lower Cover	20	Drone Battery
7	B Propeller (Counterclockwise)	14	Front Lamp Cover (Green)		

Specification

Drone Size	361*355*107mm	Drone Battery	3.7V 500mAh
Drone Weight	130g	Charging Time for Drone Battery	60～80mins
Propeller Diameter	146mm	Max Flying Distance/Radius	100 m
Flying Time	7～8mins	Camera Resolution	640x480P

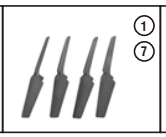
Spare Parts

For convenience, the spare parts are listed for you to choose, which can be purchased from the local distributor. (Please refer to the exploded view below to check the circled icon)

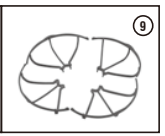


01
Upper Cover

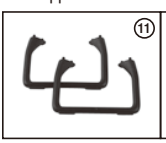
02
Lower Cover



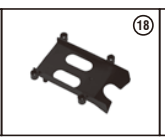
03
Propeller



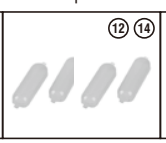
04
Propeller Guard



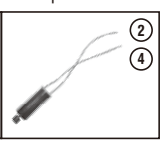
05
Landing Gear



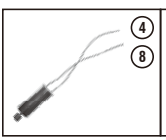
06
Main Casing



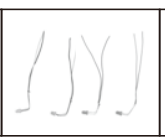
07
Lamp Cover



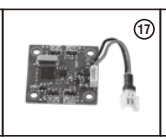
08
Clockwise Motor Parts
(Red and Blue Wire)



09
Counterclockwise Motor Parts
(Black and White Wire)



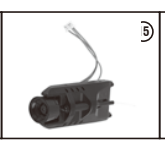
10
LED Lights



11
Receiving Board

12
Battery

13
USB Charger



14
Camera

15
Transmitter

Troubleshooting Guide

No.	Problem	Problem Cause	Solution
1	The transmitter indicator light is off	1. Low battery.	1. Replace the transmitter battery.
		2. The battery positive pole and negative pole are in reverse order.	2. Install the battery in accordance with the user manual.
		3. Poor Contact.	3. Clean the dirt between the battery and the battery slice.
2	Fail to pair the drone with transmitter	1. Indicator light is off.	1. The same as above 1.2.3.
		2. There is interfering signal nearby.	2. Restart the drone and power on the transmitter.
		3. Misoperation.	3. Operate the drone step by step in accordance with the user manual.
		4. The electronic component is damaged for frequent crash.	4. To buy spare parts from local seller and replace damaged parts.
3	The drone is under-powered or can not fly.	1. The propeller deformed seriously.	1. Replace the propeller.
		2. Low battery.	2. Recharge the drone battery.
		3. Incorrect installation of propeller.	3. Install the propeller in accordance with the user manual.
4	The drone could not hover and tilts to one side.	1. The propeller deformed seriously.	1. Replace propeller.
		2. The motor holder deformed .	2. Replace the motor holder.
		3. The gyro did not reset after violent crash.	3. Put the drone on the flat ground for about 10s or restart the the drone to calibrate again.
		4. The motor is damaged.	4. Replace motor.
5	The drone indicator light is off.	1. Low battery.	1. Recharge the drone battery.
		2. The battery is expired or over discharge protection.	2. Buy a new battery from local seller to replace the battery.
		3. Poor contact.	3. Disconnect the battery and then connect it with the plug again.
6	Could not see the picture.	1. Did not connect the wire of camera box or poor contact.	1. Check the wire and connect well.
		2. There is interfering signal nearby.	2. Cut off the wire and re-connect.
		3. Damaged camera.	3. Buy a new camera box from local seller to replace.
7	Hard to control by cellphone.	1. Not experienced enough.	1. Practice and read the cellphone controlling instruction carefully.

FCC Information

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 Rul es.These limits are designed to provide residential 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 the circuit different from that to which the receiveris connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING:

The equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. Modifications not authorized by the manufacturer may void user's authority to operate this device.

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.