



**WLtoys**


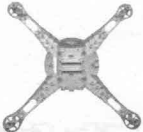
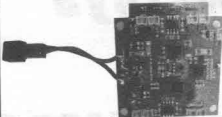











# Q222双模多功能四轴

# 使用说明书

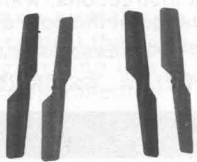
## INSTRUCTION MANUAL



## Accessories list 配件列表

<p><b>Part name: Q222 Upper cover of the casing.</b> 零件名称: Q222 机壳上盖</p>	<p><b>Part name: Q222 Under the cover of the casing</b> 零件名称: Q222 机壳下盖</p>	<p><b>Part name: Q222 Circuit board</b> 零件名称: Q222 电路板</p>	<p><b>Part name: Q222 Tripod</b> 零件名称: Q222 脚架</p>
			
<p><b>Part name: Q222 Carbon fiber spindle</b> 零件名称: Q222 碳纤主轴</p>	<p><b>Part name: Q222 Lithium Battery</b> 零件名称: Q222 锂电池</p>	<p><b>Part name: Q222 Blade</b> 零件名称: Q222 风叶</p>	<p><b>Part name: Q222 Bearing</b> 零件名称: Q222 轴承</p>
			
<p><b>Part name: Q222 It turns red and blue line motor</b> 零件名称: Q222 正转红蓝线电机</p>	<p><b>Part name: Q222 Reverse black and white line motor</b> 零件名称: Q222 反转黑白线电机</p>	<p><b>Part name: Q222 Green light</b> 零件名称: Q222 绿灯条</p>	<p><b>Part name: Q222 Red light</b> 零件名称: Q222 红灯条</p>
			
<p><b>Part name: Q222 Tail light panel</b> 零件名称: Q222 尾灯板</p>	<p><b>Part name: Q222 Bearing</b> 零件名称: Q222 牙轮</p>		
			

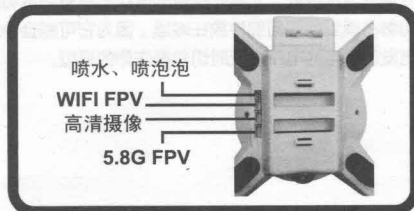
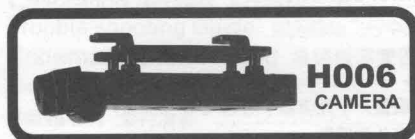
## Standard Accessories 标准配件

		
USB charging cable x1 USB充电线x1	3.7V 730mah Li-po battery x 1 锂电池 x 1	Blade x 4 风叶 x 4

## Packaging List 包装清单

NO	PART NAME	零件名称	QUANTITY
1	Q222 Instruction Manual	Q222使用说明书	1
2	Q222 Aircraft	Q222 飞行器	1
3	USB charging cable	USB充电线	1
4	Li-po battery	锂电池	1
5	Blade	风叶	4
6	Remote control	遥控器	1

## Can Be Upgraded Parts 可升级配件



## Introduction 简介

- Thank you for choosing Weili product! This is a four-axis aircraft can fly outdoors, in order to make it easier and easier to control the aircraft, please carefully reading this manual before operating this aircraft units, and please keep this manual for future adjustments and maintenance of reference.

感谢您选购伟力产品！这是一台能在室外飞行的4轴飞行器，为了让您更方便，更容易操控飞行器，请您仔细阅读完此说明书，再操作此台飞行器，同时请您妥善保管这本说明书，作为日后调整及维修的参考。

- Before your first flight, please take the time to carefully read this manual containing important flight information, which will help it your first flight, to become a great course.

在你第一次飞行前，请花时间仔细阅读本手册含重要的飞行资料，这将有助便您的第一次飞行，成为一次伟大的历程。

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## Battery Charging 电器充电

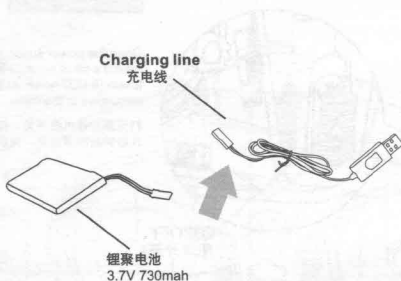
WLTOYS 1-cell 3.7V Variable Rate DC Li-Po Charger  
WLtoys 1节3.7V变量控制直流锂电充电器

### Instructions:

Charged with distribution of UFO special charger.The poly lithium battery plug into the charger jack.As shown below figure,

### 说明:

用伟力配送的飞碟专用的USB充电线。将聚锂电池插头，插入USB插口。如图所示



**Notice:** Only use the charger provided by WLtoys

**Notice:** Never attempt to power the charger from an AC outlet without the use of a proper AC to DC adapter/power supply.

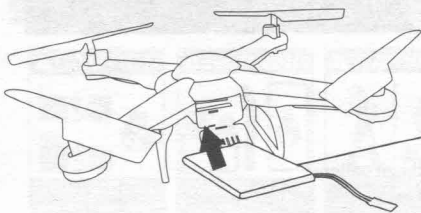
注意: 只能使用 WLtoys 提供的充电器

注意: 请勿尝试无任何交流转换直流装置。

## First Flight preparation CAUTION 飞前注意事项

1. Make sure the power is sufficient.
  2. When the power switch, make sure the throttle stick at the bottom, both sides confirmed the throttle hold switch and pull the stunt mode switch to the back. (After the shell direction)
  3. Indeed if the same frequency and Aircraft, if an exception on the code again.
  4. Looking for a suitable venue flight, away from the crowds, cars, high-voltage towers, reservoirs, etc., can be carried out safe and enjoyable flight
1. 确认电源是否充足。
  2. 打开电源开关时, 请确认油门摇杆在最下方。
  3. 确认与飞行器是否同频, 如果异常请重新对码。
  4. 寻找一个合适飞行的场地, 远离人群、车、高压电塔、水塘等, 方可进行安全愉快的飞行。

**Step 1 步骤 1**

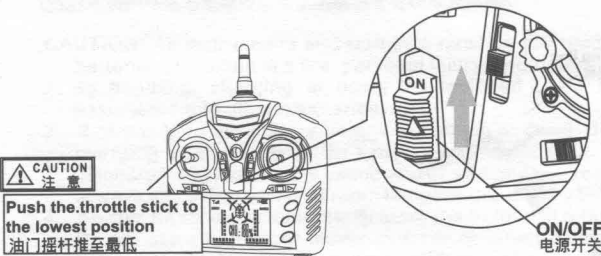


**Li-Po**  
锂离子电池  
3.7V 730mah

The spacecraft on a flat position, the Li-po battery icon in accordance with direction pushing people electric socket to position, body LED flashing lights at this time not to move the body, makes the remote controller reads the neutral point of frequency and gyroscope.

将飞行器置于平坦位置后，将Li-po电池依图示方向推入电插座至定位，机身LED灯闪烁此时不要再移动机身，使遥控器对频与陀螺仪读取中立点。

**Step 2 步骤 2**



**CAUTION**  
注意

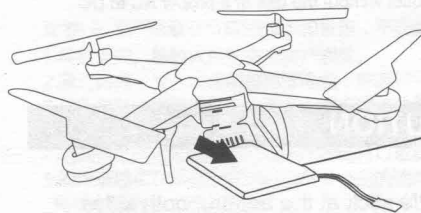
Push the throttle stick to the lowest position  
油门摇杆推至最低

**ON/OFF**  
电源开关

Open the power supply control switch, remote control issued a bit of noise, a few seconds after the end of the fuselage LED noise, at the same time often bright, completes to the code.

打开遥控器电源开关，遥控器发出滴滴的响声，几秒钟后响声结束，当机身LED常亮，对码完成。

**Step 3 步骤 3**



**Li-Po**  
锂离子电池  
3.7V 730mah

Remove the flight vehicle battery safely at the conclusion of flight .this should be made into a post flight habit to avoid unforeseeable problems.

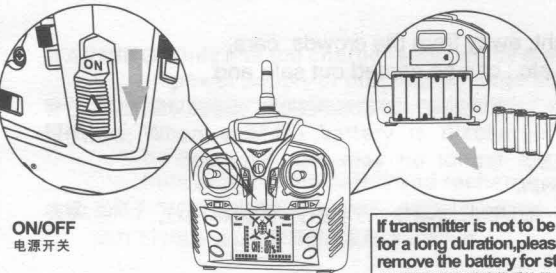
结束飞行时，请将飞行器电池安全取下，请养成良好的习惯以免造成遗憾。

**WARNING**  
警告

Warning: If left connected in the flight vehicle for long duration, the battery may be damaged due to over-discharge, or even become fire hazards.

电池未取下，将导致电池过放电而损坏，甚至造成起火燃烧的危险。

**Step 4 步骤 4**



**ON/OFF**  
电源开关

If transmitter is not to be used for a long duration, please remove the battery for storage.  
长时间不使用时请将遥控器电池取出并妥善保管。

**WARNING**  
警告

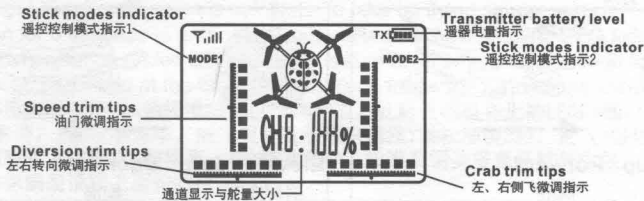
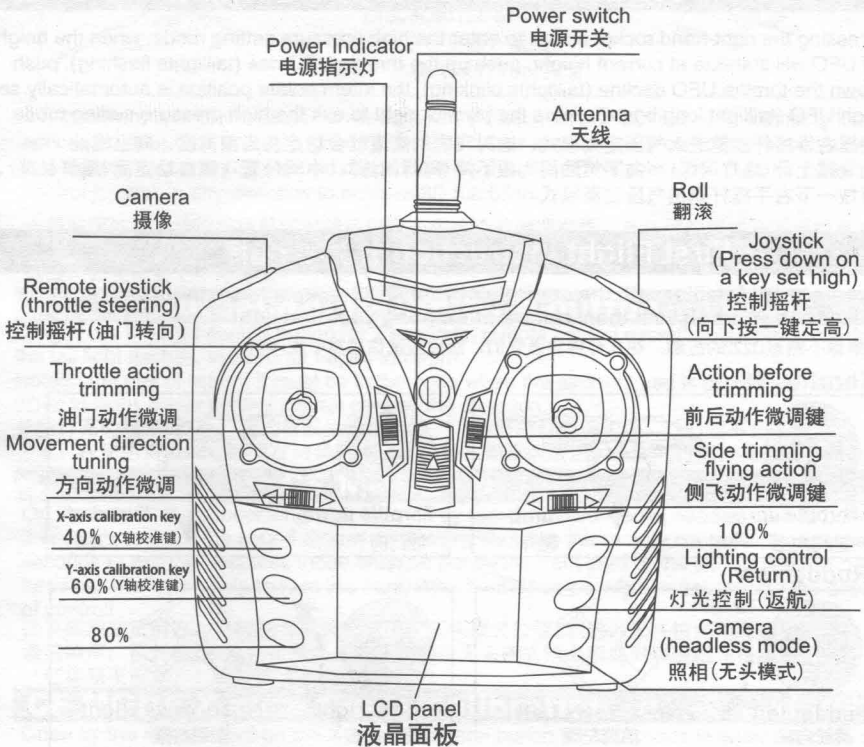
Warning: if the AA batteries are left in the transmitter, potential leakage could occur which may damage the transmitter, and create fire hazards.

电池未取下，将导致电池漏液而损坏遥控器，甚至造成起火燃烧的危险。

# NOMENCLATURE 遥控器各部位名称

## 1. Transmitter Chart

遥控器面板外说明





## NORMAL MODE 普通模式

Normal flight mode is turned on by default, and conventional flying saucer fly.  
开机默认是普通飞行模式，和常规飞碟一样飞行。

## FIXED-HEIGHT MODE 定高模式

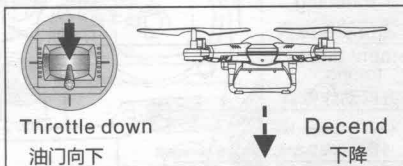
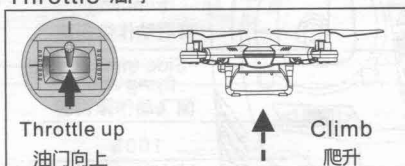
Pressing the right-hand rocker button to enter the high pressure setting mode, when the height of UFO will stabilize at current height, push up the throttle UFO rise (taillights flashing), push down the throttle UFO decline (taillights blinking), the intermediate position is automatically set high UFO (taillight long bright), press the joystick right to exit the high pressure setting mode.  
按压右手摇杆按键进入气压定高模式，这时飞碟的高度就会稳定在当前高度，向上推油门飞碟上升(尾灯闪烁)，向下推油门飞碟下降(尾灯闪烁)，中间位置飞碟自动定高(尾灯长亮)，再按一下右手摇杆退出气压定高模式。

## First Flight instruction 首次飞行指挥

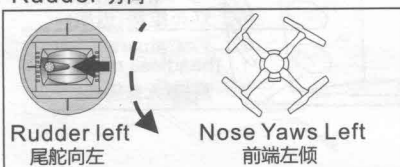
If you are not familiar with the controls of your Q222, take a few minutes to familiarize yourself with them before attempting your first light.

如果你不熟悉Q222的控制，花几分钟熟悉它们，然后尝试你的第一次飞行。

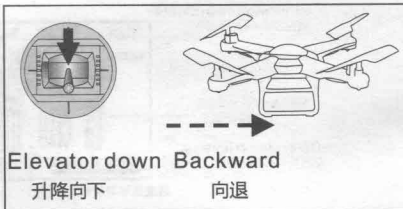
### Throttle 油门



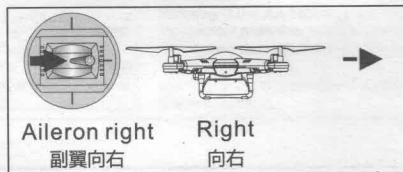
### Rudder 方向



### Elevator 升降



### Aileron 副翼



## 3D Rolling 3D翻滚



★ The current face of the basic movements are skilled when you can play some thrilling tumbling action, and then click on any rudder upper right corner of the remote control buttons, the remote emits a continuous sound drops, this time into the 3D rollover state then hit the remote control joystick in any direction to achieve 3D tumbling.

★ 当前面的基本动作都很熟练时就可以玩一些惊险的翻滚动作，再任何舵量按一下遥控器右上角按键，遥控器发出连续的滴滴响声，此时进入3D翻滚状态，这时打遥控器摇杆任何方向实现3D翻滚，无头模式下不能翻滚。

### Automatic return by a button 一键返航

Long press the light control button for 2 seconds, remote control aircraft noise occurring drops, the tail light flashes, the aircraft began to return.

Note! In the use of return; it must be in the code when the aircraft head is placed just before. And when in flight, super control cannot change the direction.

长按灯光控制按键2秒，遥控器发生滴滴响声，飞行器尾灯快速闪烁，飞行器开始返航。

注意！在使用返航时，必须在对码时将飞行器的头朝正前放正。且在飞行时，操控者不能改变方向。

### CF MODE 无头模式

On the front of the saucer, long after take-off by remote control codes headless mode button for 2 seconds to enter the sound drops headless mode while the remote controller, then press 2 seconds to exit the headless mode. Must be put on the front yard of the aircraft are using a headless mode (red pulp toward the front): Attention! When people can not change the direction of control!

把飞碟放在正前方，对码起飞后长按遥控器无头模式按键2秒进入无头模式同时遥控器发出的滴滴响声，再长按2秒退无头模式。注意：使用无头模式时必须在对码前把飞机放正（红桨朝正前方）！操控时人不能改变方向！

### CF MODE X-axis Y-axis calibration 无头模式X轴 Y轴校准

Often by the remote boot on the X-axis calibration button for 3 seconds to enter the code after a good X-axis calibration, this time the body of the UFO LED flashes until all levels of uniform rotation UFO LED light, X-axis calibration is complete, To take up flying saucer vertical Y-axis calibration press button for 3 seconds to enter the Y-axis calibration, LED flashing UFO flying saucer straight vertical uniform rotation ended LED lit, X-axis calibration, the calibration needs Reboot to take effect. UFO has been calibrated at the factory, if deviations follow the instructions above calibration.

开机对号码后常按遥控器X轴校准3秒进入X轴校准，此时飞碟机身上的LED闪烁，水平匀速旋转飞碟直至LED常亮，X轴校准完毕，把飞碟垂直拿起来再按Y轴校准键3秒，进入Y轴校准，飞碟LED闪烁垂直匀速旋转飞碟直至LED常亮，X轴校准完毕，校准后需要重新开机生效，飞碟出厂时已校准完毕，如有偏差请按上面说明校准。

### Calibration aircraft 飞行器的校准

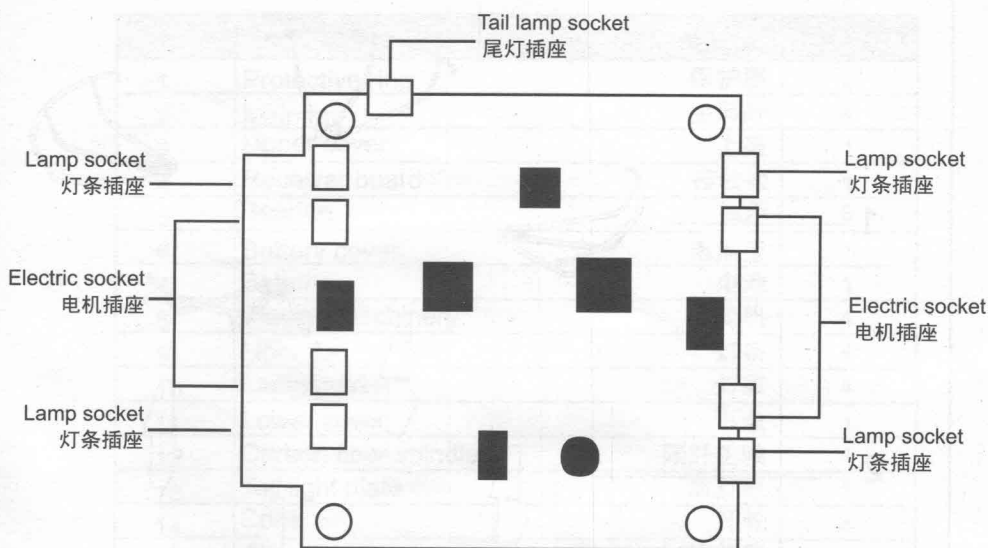
If the aircraft due to collision or replace the circuit board and cause instability in flight, can be calibrated at the gyroscope, in what amounts to two joysticks rudder simultaneously for 2 seconds to play in the end to the lower left corner, then aircraft lights flash, a few seconds bell LED is lit, calibration is complete.

如果飞行器因碰撞或更换电路板而引起飞行不稳定，可以校准一下陀螺仪，在何舵量下把两个摇杆同时向左下角打到底2秒钟，这时飞行器的指示灯闪，几秒钟指示灯为常亮，校准完毕。

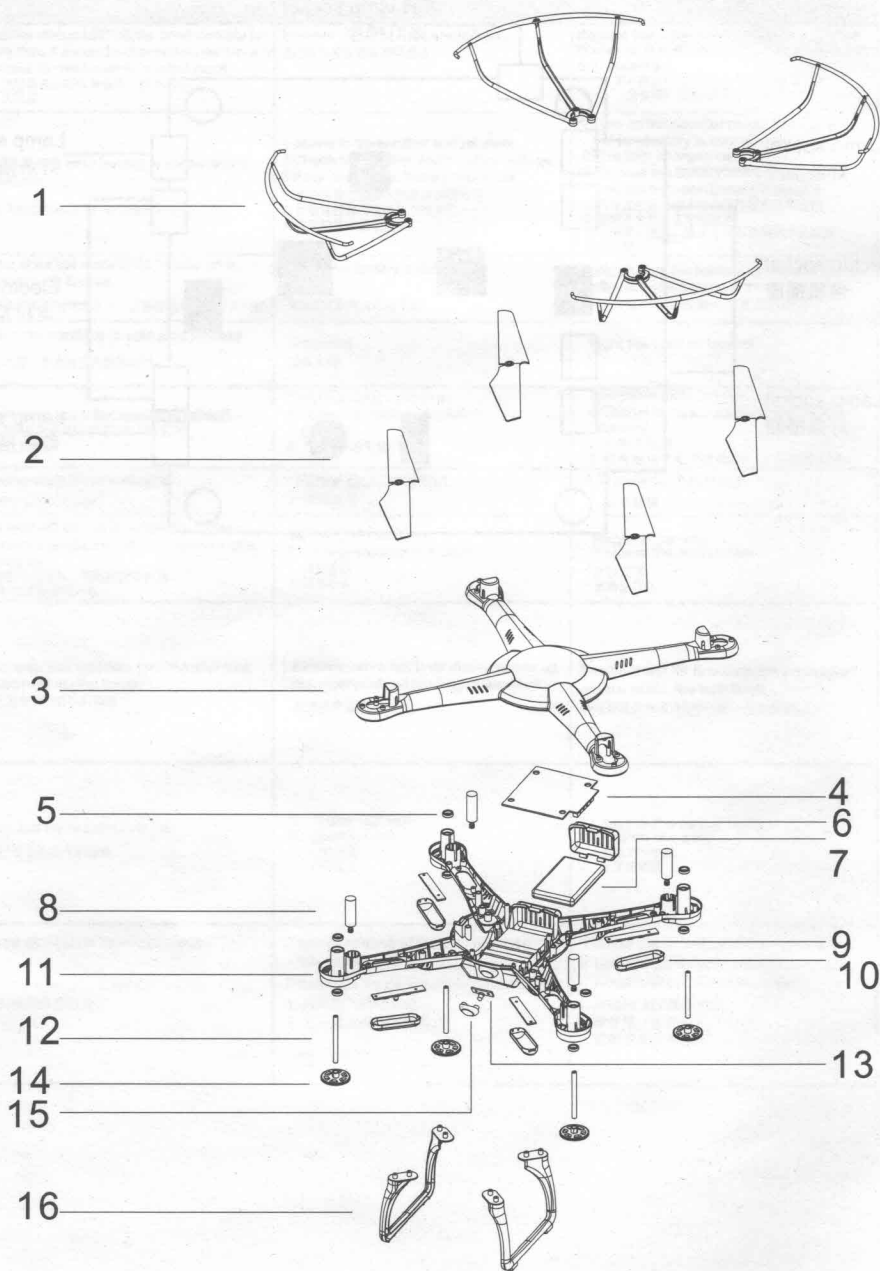
# Troubleshooting Guide 如何排除飞行中的异常

	Situation 状况	Cause 原因	Way to deal 对策
1	Receiver status LED blinks continuously for more than 4 seconds after helicopter battery inserted. No response to control input. 接上飞行器电池接收器指示灯持续闪烁, 操作无反应	Unable to bind to transmitter. 遥控器与接收器未对频成功	Repeat the power up initializing process (Refer to P.6: Binding of radio transmitter and receiver) 请从新执行遥控器与接收板的对频动作 (请参阅P.7遥控器与接收器的对频)
2	No response after battery is connected to helicopter. 接上飞行器电池后飞行器没有任何反应	1. power to transmitter and receiver. 2. Check transmitter and receiver voltage. 3. Poor contact on battery terminals. 1. 检查遥控器和接收器是否接通电源 2. 检查遥控器和接收电池的电压 3. 电池极片接触不良	1. Turn on transmitter and ensure flight vehicle battery is inserted properly. 2. Use fully charged batteries. 3. Re-seat the battery and ensure good contact between battery contacts. 1. 打开发射器与确实插入飞行器电池至定位 2. 使用完全充电充电的电池 3. 从新插入电池, 确认电池和电池极片的接触是否正常
3	Motor does not respond to throttle stick, receiver LED flashes. 推动油门摇杆时马达不转, 且接收器指示灯开始闪烁	Helicopter battery depleted. 飞行器锂电池电量不足	Fully charge the battery, or replace with a fully charged battery. 将电池充电或更换另一个充电的电池
4	Main rotor continue to spin after landing 降落之后, 主旋翼仍在旋转未停止	Unlocked 没有上锁	Fight toe toed or locked 打内八字或外八字上锁
5	Main rotor spins but unable to takeoff. 飞行器主旋翼有持续转动但不能起飞	1. Rotor deformation 2. Helicopter battery depleted 1. 旋翼变形 2. 飞行器电池电量不足	1. Replace main blades 2. Charge or replace with a fully charged battery. 1. 更换主旋翼 2. 将电池充电或是更换另一个充电的电池
6	Strong vibration of helicopter 飞行器震动得很厉害	1. Rotor deformation 1. 旋翼变形	1. Replace the rotor 1. 更换旋翼
7	Tail still off trim after tab adjustment, or inconsistent speed during left/right pirouette. 已调整方向微调, 但机身仍会打转, 左旋/右旋速度不一致	1. Damaged tail rotors 2. Damaged tail drive motor 1. 旋翼变形 2. 马达不良	Replace the rotor Replace the main motor 更换旋翼 更换主马达
8	Helicopter still wanders forward after trim adjustment during hover. 飞行器会往前或往后偏移	1. Elevator servo not level during power up. 2. Elevator pushrod too long or too short. 陀螺仪中点不对。	The boot will lift fine-tune the normalized neutral point, the new boot. 开机后将升降微调归中立点, 从新开机。
9	Can not fly the aircraft fall 飞行器跌落后飞不起来	1. motor fall out 2. gear loosen 1. 电机脱落 2. 齿轮松动	1. install the motor again 2. tighten the gear 1. 从新装回电机 2. 把齿轮装紧
10	Large deviations headless mode 无头模式偏差较大	1 partial release of the aircraft when the code 2 headless mode interference disorder 1. 对码时飞行器放偏 2. 无头模式受干扰错乱	1 to put the aircraft on time codes are 2 Refer to (calibration headless mode) Recalibration headless mode 1. 对码时飞行器要放正 2. 请参照 (无头模式的校准) 重新校准无头模式

# Schematic circuit board 电路板示意图



# Exploding View 爆炸图



## Parts List 零件清单

NO	PART NAME	零件名称	QUANTITY
1	Protective ring	保护圈	4
2	Main fan	主风叶	4
3	Upper cover	上盖	1
4	Receiver board	接收板	1
5	Bearing	轴承	8
6	Battery cover	电池盖	1
7	Battery	电池	1
8	Electric machinery	电机	4
9	Light Bar	灯条	4
10	Lampshade	灯罩	4
11	Lower cover	下盖	1
12	Carbon fiber spindle	碳纤主轴	4
13	Tail light plate	后灯板	1
14	Cone	牙轮	4
15	After the lamp shade	后灯罩	1
16	Tripod	脚架	2

## Helicopter Parameters 飞行器参数

Length	对角长度	375 mm
Height	高度	58 mm
Blade length	风叶长度	136 mm
Battery Specification	电池规格	3.7V 730mAh23C
Flight time	飞行时间	7-8min

# WIFI Manual

## WIFI 说明书

This product uses advanced image compression technology to produce high compression ratio of the video data stream, the point to point through WIFI, record to memory card, sent to any terminal equipment ( mobile phones ). The company developed the phone by installing the APP software , to be completed in real-time video transmission , aircraft flight control , video transmission distance of 50-70 meters.

本产品使用先进的图像压缩技术产生高压缩比的视频数据流，通过WIFI的点对点方式，发送到任意的终端设备（手机）。手机通过安装本公司开发的APP软件，可完成视频的实时传输，飞行器的飞行控制，视频传输距离50-70米。

### Installation instructions 安装说明:

The WIFI camera mounted on top of the aircraft , in the power cord into the jack WIFI aircraft , scan the QR code to download and install the control software to support iPhone and Android.

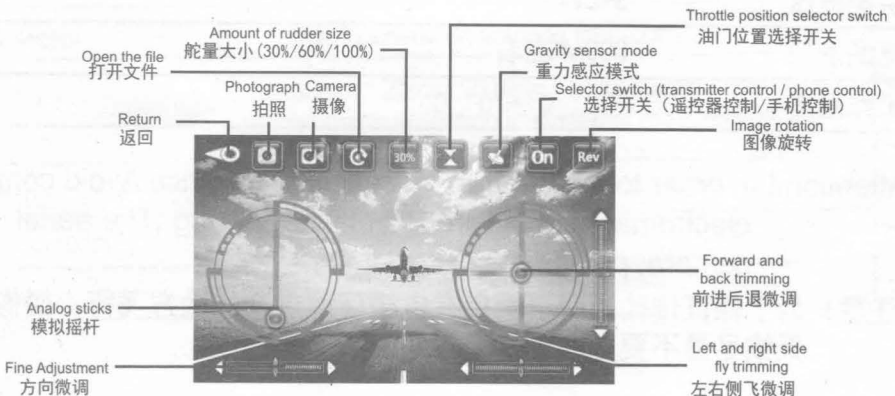
把WIFI摄像头安装到飞行器上面，在把电源线插到飞行器的WIFI插口，扫描二维码下载并安装控制软件，支持iPhone和Android。

### Instructions 操作说明:

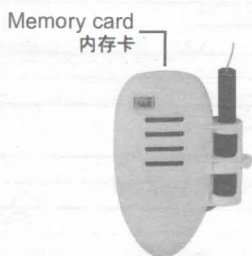
Search to open the phone WIFI WIFI or WIFI UFO name WL and the beginning of the connection, and then open the control software, press enter PIAY control interface, mime It is identified with the remote control for image transmission, when the phone is not controlled, then the screen no analog joystick, can only use the remote control to control flight, A mobile phone attached to transmit images in real time on the remote control, press the select key to open the phone to enter the control mode, the screen display analog control sticks, Then you can use the phone to control the aircraft. Set high pressure version press on the accelerator position switch automatically switches the throttle back in, then then click Selector switch vehicle idling rotation. Then push the throttle aircraft takeoff, the aircraft automatically set high. Did not push the throttle to fly three seconds after pressing the select switch Actuator is automatically stopped, re-open closed Select 2 seconds to turn on the selection switch, the vehicle is restarted.

打开手机WIFI搜索以WL或WIFI UFO开头的WIFI名称并连接，然后打开控制软件，按PIAY进入操控界面，默认是配合遥控器作图像传输，此时是不能手机控制的，这时屏幕没有模拟摇杆，只能用遥控器来操控飞行器，把手机装到遥控器上可以实时传输图像，按下选择开关键进入手机操控模式，屏幕显示模拟操控摇杆，这时就可以用手机控制飞行器了。气压定高版先按一下油门位置开关使油门可自动回中，这时再按一下选择开关飞行器怠速旋转。这时推油门飞行器起飞，飞行器自动定高。按下选择开关3秒钟后没有推油门飞行器则自动停转，重新关闭选择开2秒钟再打开选择开关，飞行器则重新启动。

### Control interface schematic 控制界面示意图:



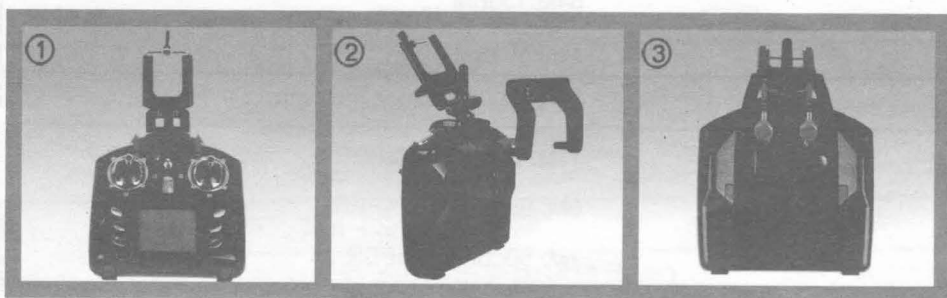
Phone Holder assembly diagram 手机架装配示意图:



WIFI Webcam  
WIFI 摄像头



Phone Holder  
手机架



(Illustration)  
图示

扫描二维码下载APP软件



Google play



Android



iOS



## The main parameters 主要参数

Function	Specifications
Camera	30 megapixel
Video encoding format	H.264
Video sampling	rate of 25 to 30 frames per second
Image Resolution	VGA (640*480)
Transmitting frequency range	2.412-2.484 GHz
Supports standard	support WI-FI 802.11 b / g / n standards
Transmission bit rate	135/54/48/36/24/18/12/9/6 / 1M ( adaptive )
Throughput	90Mbps
Transmit power	135M:15dBm
	54M:15dBm
Memory card	10 class
Receiver sensitivity	54/135M:-72dBm@10%PER
	11M:-85dBm@8%PER
	6M:-88dBm@10%PER
	1M:-90dBm@8%PER
Safety standard	WEP/WPA-PSK/WPA2-PSK
Transmission distance	50 to 150 m (determined by the surrounding electromagnetic environment)
Antenna Selection	IPX 1 generation antenna interface
PCB size	33mm * 22mm * 0.8mm ( large quantity can be made according to customer requirements )
Supply voltage	3-5V
Current consumption	about 800mW
Operating temperature	-10°C~+70°C

1	尾燈	Tail light
2	尾燈殼	Tail light cover
3	尾燈座	Tail light base
4	尾燈燈罩	Tail light lens
5	尾燈燈管	Tail light tube
6	尾燈燈座	Tail light socket
7	尾燈燈罩	Tail light cover
8	尾燈燈座	Tail light base
9	尾燈燈罩	Tail light lens
10	尾燈燈管	Tail light tube
11	尾燈燈座	Tail light socket
12	尾燈燈罩	Tail light cover
13	尾燈燈座	Tail light base
14	尾燈燈罩	Tail light lens
15	尾燈燈管	Tail light tube
16	尾燈燈座	Tail light socket
17	尾燈燈罩	Tail light cover
18	尾燈燈座	Tail light base

# WLtoys

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1	尾燈	Tail light
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