



Disclaimers and Warnings

Congratulations on purchasing your new REDFOX 3-axis handheld gimbal S1. Please read this manual and disclaimer carefully before using this product. By using this gimbal, you hereby agree to this disclaimer and signify that you have read it fully.

Do not modify or adjust the gimbal S1. As REDFOX has no control use, setup, final assembly or misuse, no ability shall be assumed or accepted for any resulting damage or injury. REDFOX assumes no ability for damages or injuries incurred directly from the use of this product.

REDFOX has a feature page on website (www.redfoxuav.com). You can through the page access to product information and user manuals. Please confirm whether you have the latest version of the manual on the basis of the version number. If not, please download and use the latest version of the manual. If there are any updates, this manual without prior notice.

If you are unable to solve the problems encountered during the installation process, please get help from REDFOX duly authorized agents or REDFOX customer service.

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Warranty instructions

Dear customer, Thank you to buy REDFOX products, our products are under strict quality control and quality inspection products. This warranty card is to show the product is a failure occurs under normal use ,in accordance with the stipulations in the warranty card to provide customer maintenance and adjustment.

Warranty instructions

1. Since the acquisition date, gimbal failure occurs in the normal use within a year, warranty service available. The situation of the man-made damage, improper use, natural damage (e.g., fire, earthquake, flood damage caused by such as) does not belong to the warranty scope.
2. Consumables (e.g., battery, etc.) and spare parts replacement, do not belong to the warranty scope.
3. Warranty card once lost no longer reissue, please safekeeping.
4. The malfunction of the products have been more than the warranty period if our company has parts and can provide the warranty service, certain parts fee and handling fee will be charged.

product name		Purchase date	
product serial number			
customer information: ;			
Customer name		Customer tel	
Customer add			
seller information:			
Seller name		Seller tel	
Seller add			



Attention!

Please adjust the motors to the correct position(see diagrams as below), then install the GoPro before turning the power on!

See diagrams as below



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FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device,pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates 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 theinterference 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.

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

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. such modifications could void the user's authority to operate this equipment. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF exposure warning

This device is measured RF output power is less than the SAR exclusion threshold value for human head and body. The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.



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REDFOX INTELLIGENT TECHNOLOGY



3-Axis Handheld Gimbal User Manual V1.0

Sales service phone: 0755-26601800

3-Axis Handheld Gimbal Using Notice:

- 1.Do not use a handheld gimbal submerged, when not in use for a long time, please stored it in a cool and dry place.
- 2.Do not expose the gimbal to extreme temperatures, including excessive heat. Do not leave gimbal inside vehicles on hot days or near the fire.
- 3.3-Axis Handheld Gimbal must be charged with a REDFOX charger. Don't charge is neglected in the case.
- 4.Do not use gimbal in strong static electricity, or damage to electronic protection devices may lead to dangerous accidents.
- 5.The use of error, leakage or overcharge may make gimbal built-in battery explosion or fire
- 6.This product built-in bluetooth module, do not use in the radio controlled environment.
- 7.This product built-in lithium battery, please do not use the equipment in a very low temperature environment, extremely low temperature can make the battery performance decline, will cause the equipment temporarily unavailable.
- 8.Please do not throw, strike gimbal, it might damage the gimbal.
- 9.Please keep gimbal away from strong magnetic field.
- 10.Do not use gimbal and adapter interface circuit.

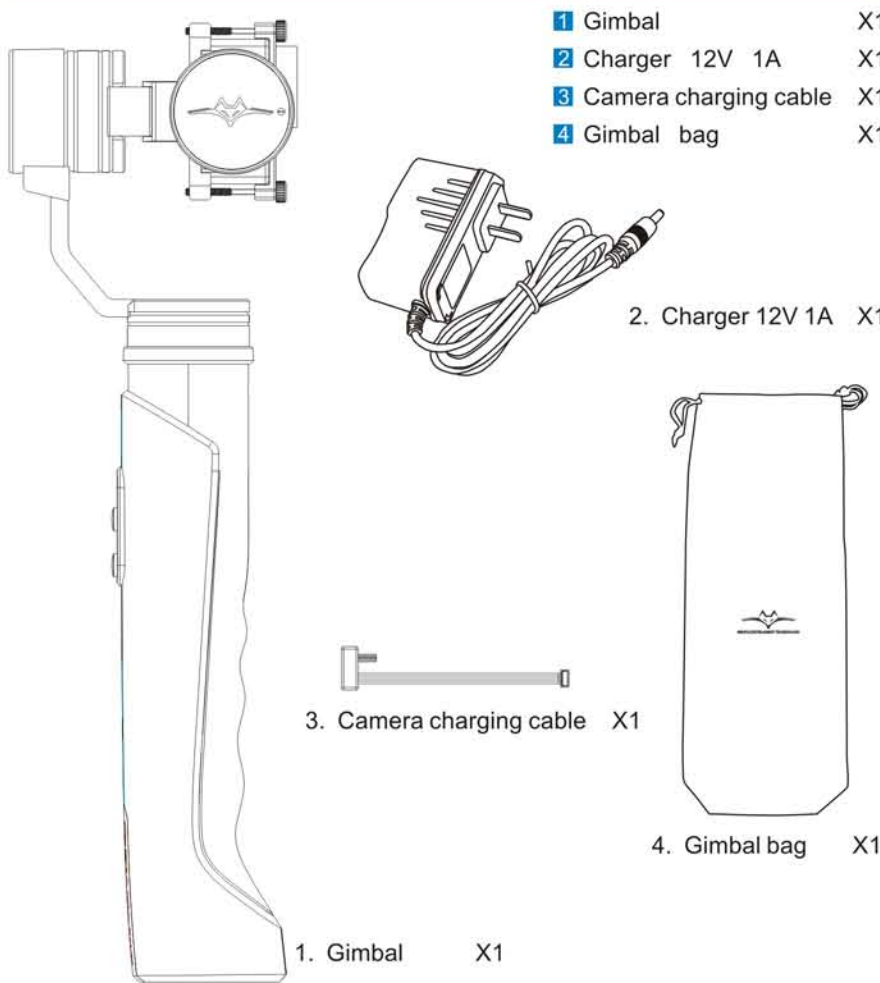


Download REDFOX 3-axis handheld gimbal use Assistant APP from
www.redfoxuav.com

Product Overview

- REDFOX 3-axis handheld gimbal is a specialized stabilization system custom development for photography enthusiasts. Light structure stability, pure and fresh appearance, can bring the perfect performance image for different types of sports camera.
- Driven by the advanced servo control technology, more smooth, unhindered.
- 3 work modes : Locking mode, heading follow mode and heading and pitching follow mode.
- Can charge the battery for camera device.

In the Box



3-Axis Handheld Gimbal Parts Indicator Diagram



Specification

Items	Max	Norm	Min
Working Current	1800mA	200mA	50mA
Working Voltage	8.4V	7.4V	6.8V
Heading Axis Controlled Rotation Range	+160°		-160°
Roll Axis controlled Rotation Range	+55°		-55°
Pitch Axis controlled Rotation Range	+55°		-55°
Pitch following Rate	60°/S		1°/S
Heading following Rate	120°/S		1°/S
Battery time(25°)	14H	12H	10H
Operation temperature	45°C	25 °C	-20°C
weight		353g	

Function Introduction

• Gimbal States

NO	State	Instruction
1	Working state	Turn on the power switch at the bottom of gimbal, then the gimbal enter working state in 3 seconds. When all parts of gimbal normalrunning, insert the Mini-USB cable can charge the battery for camera device
2	Dormant state	When the gimbal is working,click the first button 3 times continuously, the gimbal will enter the dormant state while the gimbal can only recharge camera device. If you want to transfer out. dormant state, please turn off the power, then restart gimbal
3	Shutdown state	Turn off the bottom of the power switch, gimbal enter the shutdown state, gimbal power components doesn't work, and cannot be external power supply.

• Working modes

NO	Working mode	Instruction
1	Heading follow mode (default)	Pitch and roll are locked. Heading follows smoothly with the handheld direction.
2	Heading and pitch follow mode	Roll is locked. Heading and pitch follow smoothly with the handheld direction.
3	locking mode	Pitch, roll and heading are locked.

• Handheld State light instructions

NO	State light describe	specification
1	Blue, Normally on	Locking mode
2	Blue, Slow flash about 1 times per second	Heading follow mode
3	Blue, Flash about 2 times per second	Heading and pitch follow mode
4	Blue	Power greater than or equal to 60%
5	Blue-red	Power is 40% ~ 60%
6	Red, Flash	Power less than 40%, low electricity warnings
7	Red, Normally on	In dormant state
8	Green, Normally on	Is charging

• Button specification

1. Power switch: at the bottom of the handheld
2. Button A

NO	1	2	3	4
Operation	Long press about 1 second	A quick click	Double-click on the fast	click 3 times continuously
Specification	locking mode	Heading and pitch follow mode	follow mode	Enter the dormant state

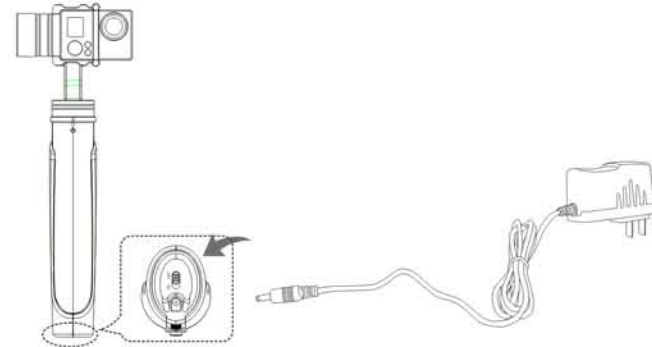
3. Button B

NO	Operation	Specification
1	In any mode, press second button, users to adjust the Angle of the need, loosen the button	Quickly adjust Angle, gimbal back to the state before adjust the Angle
2	Press down the button B,turn on the gimbal then loosen the button after 1s and put the camera back clip flat within 3 seconds	Attitude sensor calibration

Installation

• Gimbal charging steps

1. Please keep the gimbal is turned off when you recharge the gimbal;
2. Plug attached charger circular interface end into the bottom of the handheld power charging port;
3. Plug charger into a power outlet;
4. As well as the handle light blue for normally on light, indicates gimbal is charging;
5. Light is put out, indicates gimbal has finished charge;



• Camera devices charging steps:

1. Gimbal in working state and dormant state can charge the battery for camera device;
2. Plug the camera charging cable in camera charging port, start charging;
3. After charging, can disconnect cable.



• Install camera to gimbal

Gimbal supports GoPro hero3, hero3 +, hero4 and other similar size and weight of the camera.

Gimbal Assistant APP Install and Use

- Download and Install
Search for "Redfox" on the App Store and then follow the instructions for IOS installation; Search for "Redfox" on APP Center and then follow the instructions for Android installation.
 1. Turn on the gimbal power;
 2. Make sure your mobile phone network has been opened, then Click " " to main page;
 3. On main page click "settings", then click the "Bluetooth" to search device "HMsot"(password: 1234), and connect the device bluetooth)
 4. On "setting" page, click "Gimbal Firmware Upgrade";
 5. If you want to know your gimbal current version number, you can click to get; If you needn't, you can skip this step;
 6. Click "Upgrade Firmware Gimbal", then APP start to download the firmware update package.
 7. After data package download finished, the gimbal starts to update about 2 minutes, please be patient
 8. When gimbal state flashing light is back to normal working, gimbal firmware upgrade is successful, otherwise, gimbal firmware upgrade failure.



Bluetooth setting page



Firmware Gimbal Upgrade page

- Our company will regularly update the gimbal firmware version

Maintenance

3-axis handheld gimbal is precision instruments, please pay attention to dust and water prevention. Do not use any with the function of cleaning liquid on gimbal.

Common problems and solutions

NO	Problems	Possible Cause	Solution
1	The motor is not strong enough	The battery is low	Please recharge gimbal
2	Heading axis deviation from the media	Probably caused by the encoder	Please contact customer service
3	The abnormal jitter of footage	Need to be calibrated	Please contact customer service
4	Equipment imbalance	Attitude sensor need calibration.	Attitude sensor calibration

Gimbal Calibration Method

• Attitude sensor calibration

Turn the power off, as far as possible place the equipment level, generally handle lying on side, hold down the second button, turn on the power button and gently gimbal into attitude sensor calibration, probably after 1 s, gimbal lights start flashing, can loosen the button, until the indicator light back to normal mode flash, calibration finish.



- Attitude sensor calibration diagram:
Put the camera back clip on flat