



Explore the new world!

FIREFLY 7SE

Free your hands!

- Voice control
- WiFi + BT 3.0 Remote control
- 2 inch high brightness IPS screen
- High Frame rate 1080P 60fps for action cam

Ver 2.0

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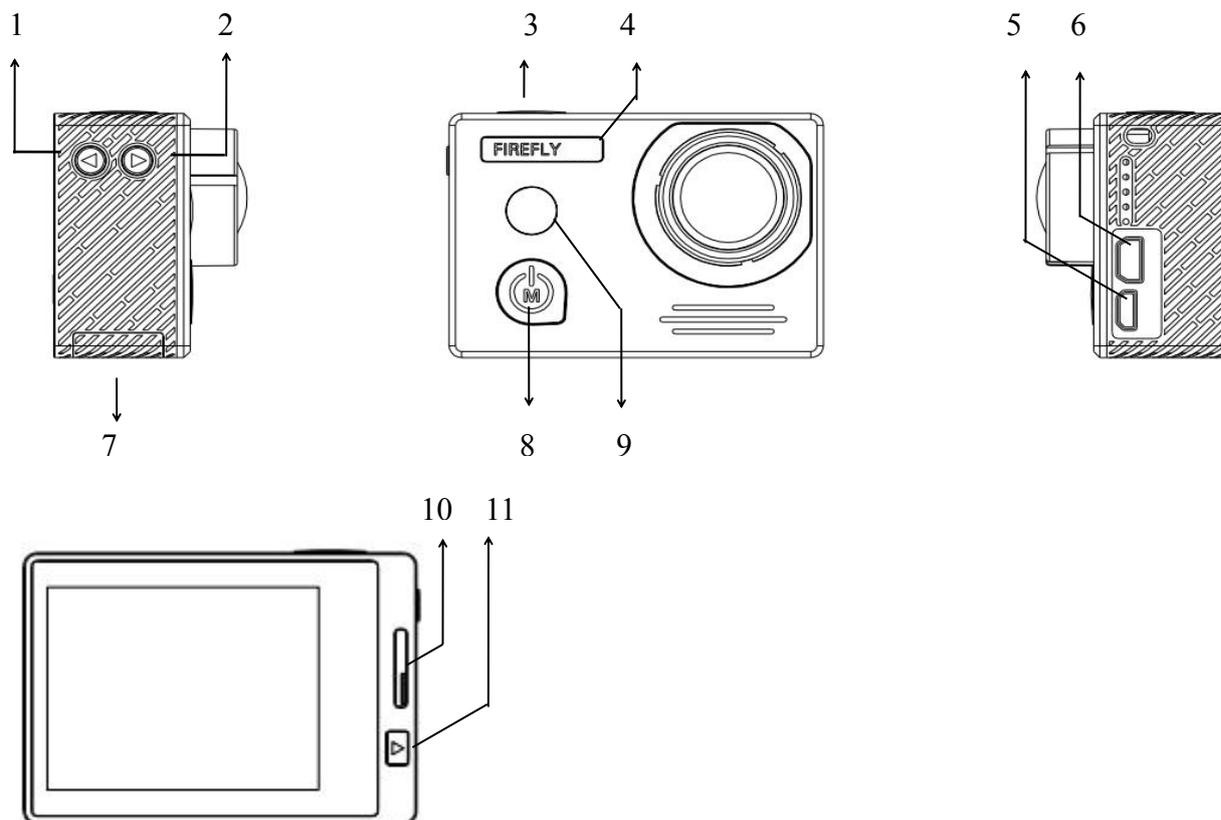
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Safety Guidelines:

Please read the instruction manual carefully before using the camera for the first time.

- 1.It's a high-precision product, do not drop or crash it.
- 2.Do not expose the camera to strong magnetic objects, sch as magnets or electrical motors. Avoid exposing the product to strong radio waves. Strong magnetic fields may cause the products breakdown or image/audio damage.
- 3.Never leave the products exposed to high temperatures and direct sunlight.
- 4.Please choose branded microSD that suggested at this manual, to make sure the camera work properly.
- 5.In case of overheating, smoke,or unpleasan smell in the process of charging, unplug your device immediately to prevent fire hazard.
- 6.While charging , keep the product out of children's reach. Power cable may casuse children accidental suffocation or electric shock.
- 7.Use original Firefly's batteries, to make sure the camera work/charge properly.
- 8.Keep the device in cool, dry and dust-free places.
- 9.Please do not throw the product or it's battery to the garbage, find a specific recycling poit for it.

Features :



1.UP button.

2.DOWN button.

3.OK button

4.Photo(Green)/Video(Blue) LED.

5.HD output

6.Mini USB.

7.Battery door.

8.Power button/Mode button.

9.Selfie Mirror.

10.MicroSD card slot.

11.Playback button.

Performance and Specifications:

	Photo resolution	12M/8M/5M/3M/2M/1.2M/ VGA
	AV output format USB Port	PAL/NTSC
	HD Output	YES
	Kind of MicroSD card supported	C10
	Maximum size of MicroSD card supported	64G
	Wi-Fi +BT 3.0 remote control	YES
	LCD screen size	2 inch 320*240
Specifications	Camera size	59×41×21 MM
	Weight	70g
	Battery Capacity (Battery is detachable)	1200mAH, 3.85V
	Battery life	About 1.33 hours (25°C enviroment)
	Time to complete charging	About 3 hours (5V 1A power supply, and power off while charging)
	Compressed format	H.264
	Video/photo format	*.MOV / *.JPG
Optical Parameter- Wide angle version	Diaphragm	F/2.8 , 6 glasses
	Angle	Diagonal 170 degrees
Electric Parameter	Working Voltage	5V
	Power supply	1A

Button Functions

Name	Functions	Descriptions
Power/Mode Button	Turn on/off camera; select modes	Press once, camera ON; press for 3 seconds, camera OFF; press to switch photo /video mode.
OK Button	start/stop recording	Press 2 seconds in playback mode to delete current file
UP Button	move upwards	move upwards / Shortcut key for screen save
DOWN Button/Menu Button	Move downwards	Enter menu setting/move downwards <u>Press for 3 sec, WIFI ON/OFF</u>
Playback Button	Playback	Switch between System /Normal settings

Video settings:

Resolution: select from 3.2K 30fps, 2.5K 30fps, 1080p 60fps, 1080P 30fps,720p 30fps, 720p 60fps,VGA 30fps ect.

Video Quality: Super.Fine, Fine.

Video Clip Time: Off, 1min, 2min, 3min,5min,10min

Loop video: Off, On. Set Loop recording function On.

Video Time Lapse: Off, 1sec, 5 sec, 10 sec, 30 sec, 60 sec. Set time lapse video function on, and set the time interval.

Motion Detection:Off, Low, Middle,High. Set motion detection function On, and set the sensitivity.

Motion event REC: 5 sec, 10 sec, 30sec, 1min. Set the motion detection record time.

Sound record: On, Off. Set the video sound.

Mic Volume: Standard,Low.

Metering:Multi,Center,Spot.

Exposure: -2,-1,0,+1,+2.

White Balance: Auto, Daylight,Cloudy, Fluoresc, Fluoresc.1, Fluoresc.2, Incandesc.

ISO: Auto, ISO100, ISO200, ISO400, ISO800, ISO1600,ISO3200.

Color: Natural, Vivid,Pale.

Effect: Normal, Sepia,B&W, Negative.

HDR: Off, On.available on 1080p 30fps.

Contrast:-100 - +100.

Saturation: -100 - +100

Sharpness:-100 - +100

Gamma:-100 - +100

Photo settings:

Photo size:12M,8M,5M,3M,2M,1.2M,VGA (1M=1Mega pixels) .

Photo Quality: Super.Fine,Fine.

Self Timer: Off, 2sec,3sec,5sec,10sec.

Photo Burst: Off,On.

Time lapse Photo: Off, 5sec, 10sec,30sec,1min.

Metering: Multi,Center, Spot

EV Value: -100 - +100

ISO: Auto, ISO100, ISO200, ISO400, ISO800, ISO1600,ISO3200.

Contrast:-100 - +100.

Saturation: -100 - +100

Sharpness:-100 - +100

Gamma:-100 - +100

System Setup settings:

In setting menu, press playback key to enter system setup settings.

Beep: On, Off.

Car mode: On, Off.

Voice control : On, Off, Explain:Voice commands are shown here:

Start Video , Video Stop, Take a photo, Camera turn off.

Mode LED: On, Off.

Status LED: On Off.

Power Off: Never 1min, 5min. When there's no operation, it will power off automaticly.

Clock settings: set the date time.

Date format: Set the day time format.

Stamp: Date+Logo, Date, Logo, Off.

Language: English, Chinese.

OSD: On , Off.

TV system: PAL, NTSC.

HDMI output: 1080P, 720P.

Flicker: 50HZ, 60HZ.

LCD rotate: On, Off, the image will rotate 180 degrees when turn on.

LCD power save: Off, 1min, 3min.

Reset setup. Yes,No.

Wifi: On, Off.

Bluetooth: Connect, No.

Format SD-Card: Yes,No

SD-card info: The sd card information could be checked here.

FW version: read the firmware version number.

How to update firmware:

- a.Delete all the files in MicroSD card , and then copy update file to MicroSD card("Firefly7SE.bin" , you could download it on our website www.CNfpv.com).
- b.Put MicroSD card into camera and power on.
- c.Once confirmed, camera will update automaticly.
- d.It will take 1-2 minutes to update. When update finish, it will power on, and then will reboot..

Wi-Fi :

Please check our website(www.CNfpv.com) or the QR code(below) to find our APP.

Please search:

Apple Store: ***Firefly Cam***

Google Play: ***Hawkeye Firefly***

You can use a Smart phone/tablet to view or take photos and videos via Wi-Fi connection.

1. Download and install app from the app store on your smart phone/tablet, or scan the QR code behind.
2. Turn camera's Wi-Fi on.(in system setting menu or **press and hold "Down button" for 2 seconds**).
3. In your smart phone's or tablet's Wi-Fi network settings, connect to the camera's Wi-Fi network named "FIREFLY_XXXX", enter the password. Default password is "12345678".
4. Open the FIREFLY app on your smart phone/tablet. You will now be able to control the camera with your smart phone/tablet plus view, playback and share selected content.

Battery Charging:

Connect the camera to a computer or phone charger using the included USB cable. Use 1A charger, and turn off the camera when charging will increase the charging rate(**Press and hold Mode key for 3 seconds could shutdown the camera**). The Charging Status Light it will turn OFF when the battery is fully charged.

Transferring Files:

1. Connect the camera to a computer via the included USB cable, and then turn on the camera.
2. Double click "My Computer" and locate "Removable Disk". Enter "Removable Disk" and you will find all photo and video files in folder.

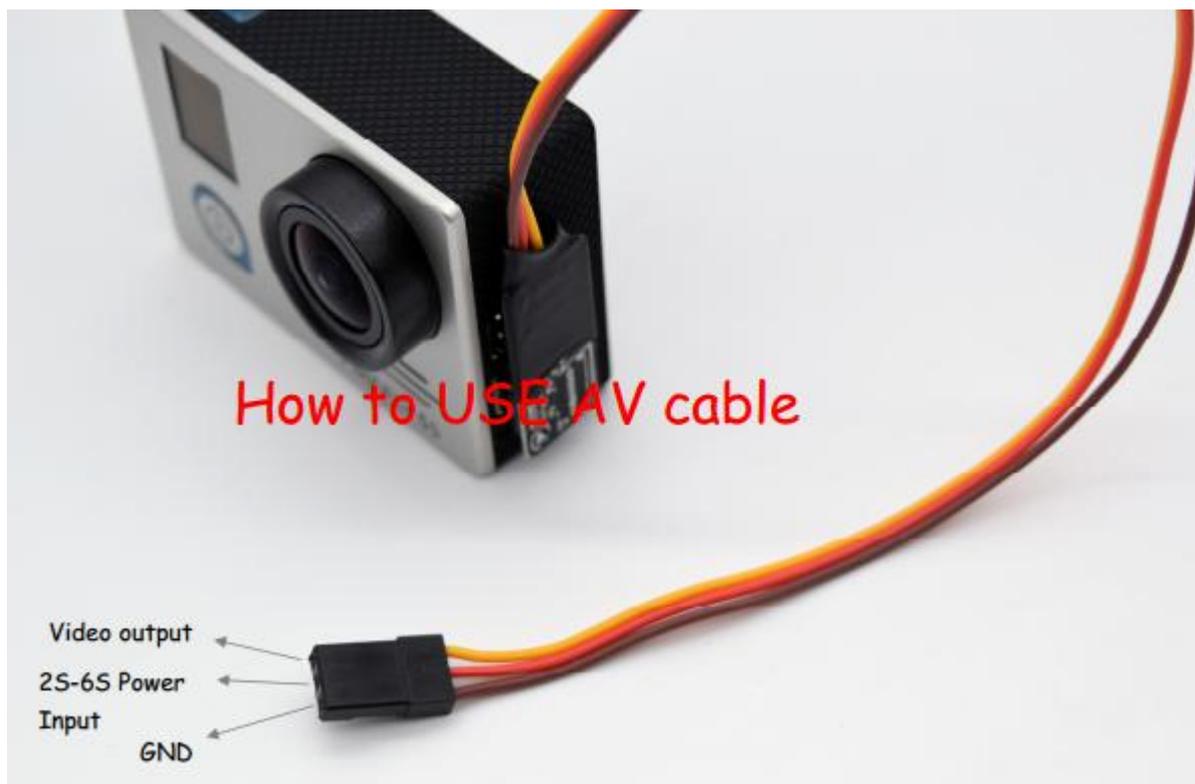
External Microphone:

Please buy our external microphone for FIREFLY 8S.

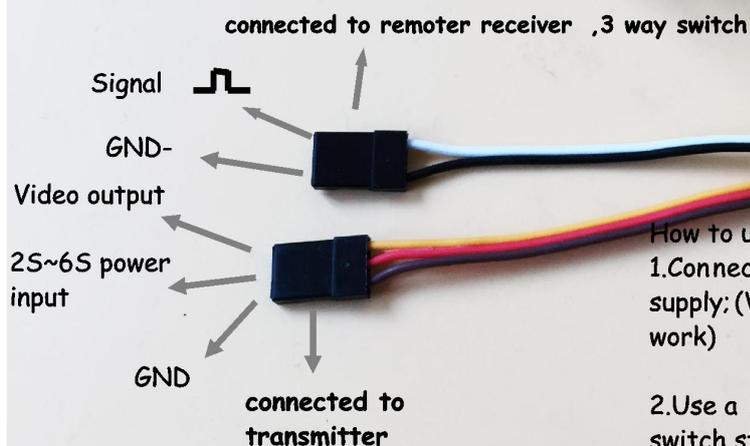
Instruction for accessories:



Accessories installation instructions(Not in stander package):



How to remotely control camera to take photos/record videos



How to use:

1. Connect this control module to power supply; (Voltage must larger than 5V, or it can't work)

2. Use a 3-way toggle switch, and keep the switch stay at the middle before power up ;

3. Power up, Toggle switch up to take one photo; toggle the switch middle and then up again to take another photo.

4. Toggle switch down and stay still to record videos; toggle switch middle to stop recording.

5. Trouble shoot:

- Make sure 3 way switch has output signal.
- Let the 3 way switch stay at the middle, and the Camera stay idle; then try again.
- Toggle up, pulse width is : 1ms; middle: 1.5ms; down: 2ms.

Bluetooth remote controler:



Selfie stick:



External Microphone:



Trouble shooting:

1.First of all if the camera has any problems: set it to default settings first (refer to :**System Setup settings**).

1.if the video quality is not satisfied or if the camra have any problems: try to set it to default settings first (refer to :**System Setup settings**).

2.Videos are not smooth: (refer to :**System Setup settings**)

a.Set the video resolution to :**1080P 60FPS**

b.Set Gyro :**ON**

c.Change a player(Quicktime player).

3.Battery endurance time is not enough: a.set LCD Brightness to Low; b.turn off the camera when charging(**Press and hold Mode key for 3 seconds could shutdown the camera**)c.Set to Photo mode when standby.d.Auto low light set ON. d.Turn WiFi OFF.

4.Charging time too long: when charging, press and hold Mode key for 3 seconds to turn the machine power off.

5.Video and sounds are no sync: A.copy the video to computer. B. Change a player(Quicktime).

6.Machine is heat. a. Set to Photo Mode when standby. b.take it out of the waterproof case. c.Not Use it in a sealed enviroment

7.Camera no response. Take battery off and assemble again.

8.For more information please visit our website: www.CNfpv.com/
www.HawkeyeFirefly.com

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 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

Please refer to our website for manual updates: www.CNfpv.com

Please download APP from:

*Apple Store: **Firefly Cam***

*Google Play: **Hawkeye Firefly***

iOS:



Android:

