



Hawkeye 4K Split/Naked Cam 3D/Gyroflow V4

- Low latency TV output
 - WDR
 - Video repair
- RC trigger to capture

Ver 1.0

Contents

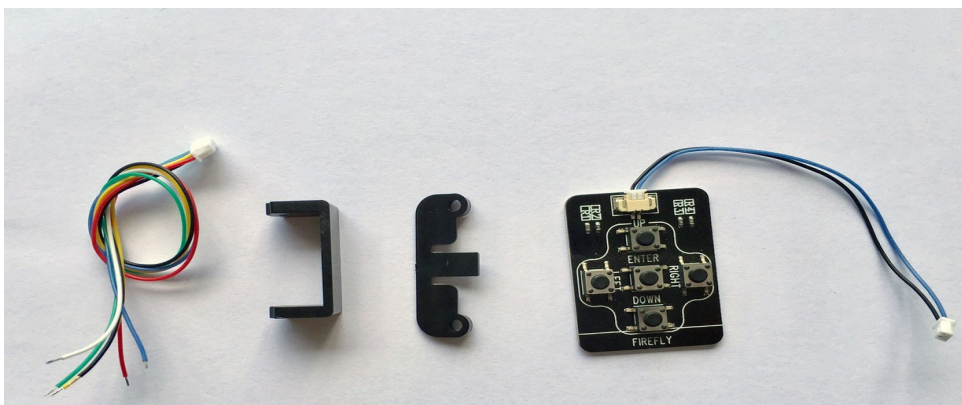
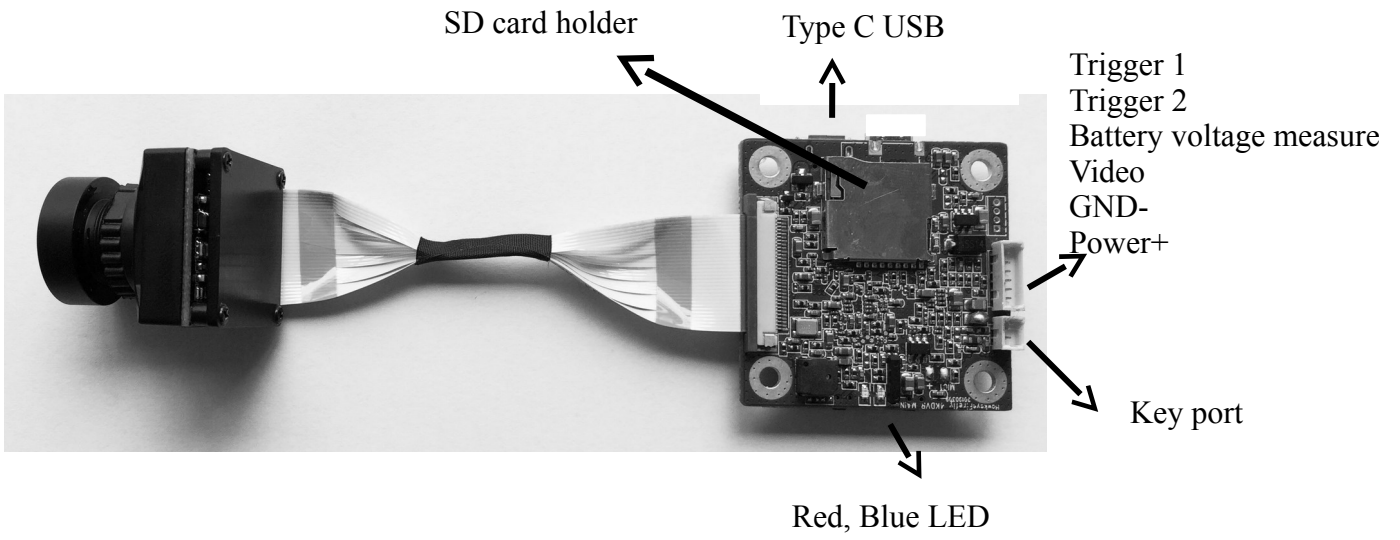
Safety Guidelines:	3
Features :	4
Buttons:.....	7
Video Settings:.....	7
Photo Settings:.....	8
System Settings:.....	8
Triggers:.....	9
Record videos:.....	10
Transferring Files:.....	10
Update Firmware:.....	10
Check on www.CNfpv.com for new firmware/Manual updates.....	13
Software down:.....	14

Safety Guidelines :

Please read the instruction manual carefully before using the camera for the first time. **Please check the latest version manual on our website.**

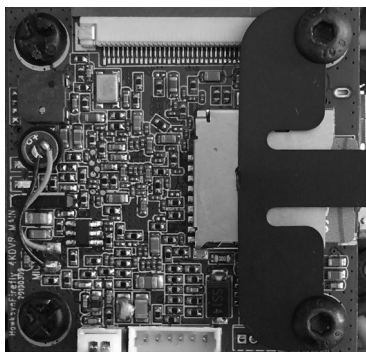
- 1.It's a high-precision product, do not drop or crash it.
- 2.Do not expose the camera to strong magnetic objects, such as magnets or electrical motors. Avoid exposing the product to strong radio waves. Strong magnetic fields may cause the products breakdown or image/audio damage.
- 3.Never leave the products exposed to high temperatures and direct sunlight.
- 4.In case of overheating, smoke,or unpleasant smell, unplug your device immediately to prevent fire hazard.
- 5.Keep the product out of children's reach. Power cable may cause children accidental suffocation or electric shock.
- 6.Keep the device in cool, dry and dust-free places.
- 7.Please do not throw the product or it's battery to the garbage, find a specific recycling place for it.

Features :



Power/video Cable Converting Mount SD Protection Cover Key board
(19 to 28mm)

SD Protection Cover:



LED indicator:

	LED
2.5K 4: 3	Red + Blue
2.5K 50FPS	Red
1080P 50FPS	Blue

Wires:

Red: 5-23V DC input +

Black: GND

Yellow: Video Out

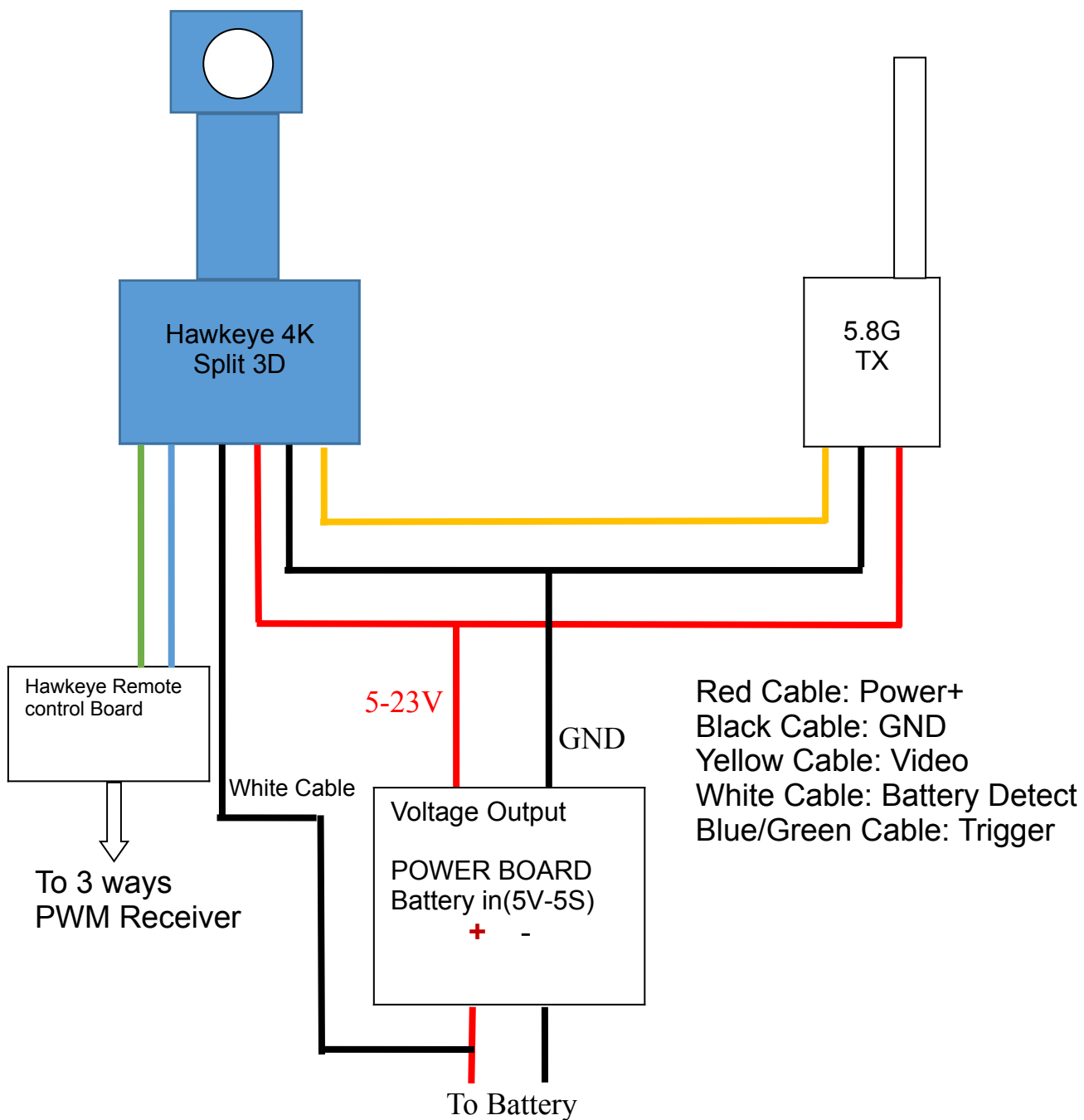
White: Battery detect (6-25v)

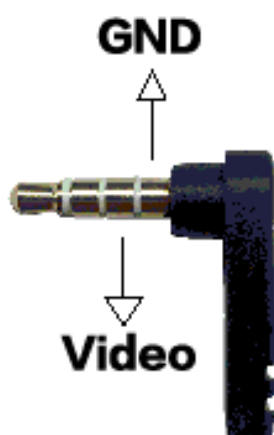
Blue: Video trigger

Green: Photo trigger



Note: Never connect video/trigger port to power+!!!



Video pin:**Performance and Specifications:**

	Resolutions	4K 50FPS(4:3) 4K 30FPS/ 1080P 50FPS/ 2.5K 50/30FPS/ 2.5K 48/30FPS 4:3
	AV output	PAL/NTSC PAL has lower latency!
	Micro SD card	U1 Sandisk recommend
	SD card supported	8-128G
	Size	38 ×38 MM 30.5×30.5 M4 holes
	Weight	19g
	File format	*.MP4/H.265
	Lens	F/2.0 , 7 glasses
	Angle	Diagonal 170 degrees
	Voltage	7-25V
	Current	500mA

Buttons:

Name	Functions	Description
Power/ OK Button	Power ON/OFF; Start/Stop Recording	Press Once to power on; Press once to start/stop recording after power on.
Mode Button	Toggle between	Press and hold for 2 seconds to toggle different resolutions.

Video Settings:

Resolution: 4K 50/30fps、2.5K 50fps, 2.5K 48/30(4:3)fps, 1080p 50fps, 1080p 30fps. **Note: High frame rates make the TV output more smooth! We advice to use ≥ 50 fps for FPV!**

Note: 4K 50FPS can't log the gyro data!

Loop recording: Off、1、3 minutes. When the SD card is full, video will be auto loop recording. When the SD card is full, video will be auto loop recording. The oldest file will be deleted first.

WDR: Off、On. WDR effect will be On/Off. **Note: When this function is turned on, the image will not become dark even toward the sun. The image would not looks so clear if this function is ON sometimes. As a FPV cam, this function should be turned ON.**

Exposure: +2.0、+5/3、+4/3、+1.0、+2/3、+1/3、0、-1/3、-2/3、-1.0、-4/3、-5/3、-2.0. **Note:** Higher value for brighter image. If you want brighter image, set this value higher. If the image is over exposure, set the value smaller.

Record Audio: Off、On.

Date Stamp: off、On. Set the date time stamps on the video.

Time-lapse record: Off、0.05、0.1、0.5、1、3、5、10、30、60sec. **Note:** Time-lapse is a video recording mode that captures video at a very low frame rate: around one to two frames per second, although this depends on the length of the recording. When played back, time-lapse video is almost the opposite of slow motion. Higher value for shorter video. There's no voice in this mode.

Slow Motion: Off, 720P 120. Slow motion (commonly abbreviated as slo-mo or slow-mo) is an effect in film-making whereby time appears to be slowed down.

Metering: Average、Center-weighted、Spot.

Sharpness: Strong、Normal、Soft.

Contrast: High、Medium、Low.

Auto Recording: Off、On. **Note: The camera will turn on and record automatically without pressing button. When you stop recording, you need to press the record button. When the power is suddenly cut off or the stop recording button is not pressed, the file will be damaged. You need to use the keyboard to enter the playback mode. When you play back the damaged file, the file will be repaired automatically.**

Gyro log: off, on. Save the gyrolog and stable the image in PC.

Gyro calibration: Please place the camera horizontally and keep it sate still, press OK button to start.

Snapshot in recording: Off、5、10、30sec. Video + photo mode.

Photo Settings:

Resolution: 60M、40M、24M、20M、16M、12M、10M、8M、5M .

Burst photo: Burst 3, Burst10.

Self Timer: 2、5、10 sec.

Quality: Fine, Normal,Economy.

Sharpness: Strong、Normal、Soft.

Contrast: High、Medium、Low.

Date Stamp: Off、Date、Date&time. Set the day time on the image

Exposure: +2.0、+5/3、+4/3、+1.0、+2/3、+1/3、0、-1/3、-2/3、-1.0、-4/3、-5/3、-2.0.

Metering:Average、Center-weighted、Spot.

System Settings:

Date time setting. Set daytime.

Auto power off: Off、1、2、3、5、10minutes.The camera will turn off when there's no operation.

Beep sound: Off、On。 Set the beep sound on/off.

Language: Muti languages.

Frequency: 50、60HZ. Light frequency indoor. **When the video flickers indoor, change this setting.**

TV mode: PAL、NTSC. **NTSC is 60fps, PAL is 50fps. NTSC is smoother than PAL.**

TV Sacle: 16: 9、4: 3、 4: 3 Full. Adjust the TV output scale.

OSD Mode: Off、On. OSD on TV output.OSD on TV output. To disable the OSD, turn this Off.

Logo watermark: Off、On.

ISO:Auto、100、200、400、800、1600、3200. The term was carried over from film, when the ISO rating was known as the "film speed" and "ASA." Having a standard of sensitivity is important, as it allows you to shoot the same ISO on different cameras and trust that the exposure value will be equal. Lower ISO, darker image, less noise.

Image effect: Color, Black&white, Sepia。

White balance: Auto、Daylight、Cloudy、Tungsten、Fluorescent、Diving mode。 White balance affects the image, warmer or cooler. Different Lens should use different white balance too. We recommend Hawkeye 4 for the stander lens.

White balance auto lock: When start recording, the current white balance will be

locked.

FOV: Large,Medium,Small. Field of view of the video.Crop the edges of the video to avoid capturing the propellers.

Image rotation: Off,On。 Turn the image upside down.

Format: Format the SD card.**Note: format the SD card at the first time,or the camera can't recognize the SD card.**

Default settings.if you have any question, you can set to default settings.

Version. Version number. Check its the newest firmware on www.CNfpv.com.

Triggers:

The trigger pins need to be connected to the trigger control cable. Scan to watch.



Note: Don't connect the trigger pins to any power. If you want to control it by a MCU, connect it to a 3.3V GPIO through a 1K resistance.

Installation:

Soft mount is needed between the camera and the drone frame. Use TPU Mount or 3M double-sided tape.

Record videos:

Please insert SD card, then press Power/OK button once to record. Please use U1 speed SD card at least(8-128G). Format the SD card in the camera at the first time.

Transferring Files:

1. Connect the camera to a computer via micro USB cable or card reader, 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 the folder.

Update Firmware:

- 1.Delete all the files and folders in the SD card(suggest:8G/16G).
- 2.Download the bin firmware to SD card .
- 3.Insert the SD card into the camera.
- 4.Power on the camera and it will update firmware automatically.
- 5.When updating, the LED will flash.
- 6.When the update process is finished, the LED will stop flashing.
- 7.The camera will reboot again.
- 8.Please check on www.CNfpv.com for new firmware updates.

Firmware:



Scan to watch how to update:



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.

NOTE:

Check on www.CNfpv.com for new firmware/Manual updates.

For more information please check our

Youtube/Facebook/Instagram channel:

Hawkeye Firefly Official

Youtube

Facebook



Instagram



Software down:

