# Foxtech Map-02 Mapping Camera

User Manual

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#### Warning

To reduce fire or shock hazard, do not expose the unit to rain or moisture.

#### IMPORTANT SAFETY INSTRUCTIONS-SAVE THESE INSTRUCTIONS DANGER TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK **CAREFULLY FOLLOW THESE INSTRUCTIONS**

If the shape of the plug does not fit the power outlet, use an attachment plug adaptor of the proper configuration for the power outlet.

Over-voltage or reverse polarity is forbidden power supply should not be higher than 8.4V.

Forbid plug in or plug out the 1.25mm 6P plug while power on. It will damage camera main board.

## **Checking the Supplied Items**

#### Supplied Items

- Camera (1)
- Cable (1)

#### **Notes on Using the Camera**

Avoid rough handling, disassembling, modifying, physical shock, or impact such as hammering, dropping, or stepping on the product. Be particularly careful of the lens.

#### **How to Trigger Shutter**

- 1.Set CAM\_RELAY\_ON to Low for proper triggering. For PWM triggering ,connect a convert module according to the output shutter signal of flight controller.
- 2. Short circuit the picture cable and GND cable to manually trigger the shutter.

Note: After power on, the shutter should be triggered twice to ensure that the camera can work normally, or it will crash after 10s.

#### **About SD Card**

- 1. Format the new SD card before use.
- 2. Write the root directionary, insert the SD card and could take photos. Or use a HDMI cable connect to a monitor, and format the SD card in the setting interface through buttons, and in this way the camera system root directionary will be automatically written to the SD card.
- 3.Each time after the photo is taken and saved, the red light next to the slot will flash for once. Do not cut off the power until the red light goes out. If the camera suddenly loses power and you didn't save the photos, please connect a monitor and select DATA RECOVERY, and then the camera can keep working.

Note: If the red light did not flashes when the camera is taking photos, it means that there is something wrong with the SD card or camera is not taking photos at all.

### **About Camera Settings**

1. How to Change Settings:

The camera can be set through the matched software by using a USB cable connecting to the computer. Or use a HDMI cable connecting to a monitor to set it by buttons.

2. How to Save Settings:

-Insert the independent setting button to the corresponding interface of map-02.

If the camera setting is changed, please turn off the camera through on-off key, and then restart it, and then cut off power supply, only after this step the setting can be saved.

The camera setting won't be saved only by cutting off power supply.

If you set a wrong data and don't want to save, then you can cut off power directly.

3. The default setting is suitable for most tasks, so you don't need to adjust it if you are unfamiliar with it at the beginning.

# **Identifying Parts**





- 1. Menu
- 2. Lens Release Button
- 3. Len Contacts\*
- 4. Image Sensor\*
- \*Do not directly touch these parts.

- 5. HDMI
- 6. SD Card
- 7. USB

# **Optional Mapping Lens**

Choose E-mount Lenses according to you need.



# **Specifications**

Item Name	Map-02 Mapping Camera	
Sensor Type	Exmor APS HD CMOS sensor(23.5x15.6mm)	
Number of Pixels(Effective)	24.3MP	
Image Sensor Aspect Ratio	3:2 16:9	
Image Size(Pixels)	3:2	16:9
	L: 6000x4000(24M)	L: 6000x3376(20M)
	M: 4240x2832(12M)	M: 4240x2400(10M)
	S: 3008x2000(6M)	S: 3008x1688(5.1M)
Image Format	JPEG/RAW	
Hot Shoe signal	Supported	
Lens Compatible	E-mount Lenses	
Shutter Trigger	Relay (Low level)	
Shutter Speed	30-1/4000 sec	
EXPOSURE MODES	Programmed AE(P)/Aperture priority(A)/Shutter-speed	
	priority(S), Manual(M)	
Continuous Shooting	Up to 6FPS	
Storage Card Type	SD/SDHC/SDXC Card/MS	
Storage	SD Card(maximum support 640G)	
Parameter Setting	Button/USB	
Data Reading	SD card/USB	
Interface	HDMI USB2.0	
Power	8.4V	
Size	7.3x5.8x2.6cm	
Weight	115g	

### **Attaching/Removing the Lens**

Lens are optional. For purchase please contact Foxtech sales.

#### Attaching the Lens



- 1. If the cap or the packaging lid is attached, remove it from the camera or the lens.(Fig.1)
  - Quickly change the lens somewhere away from dusty locations to keep dust or debris from getting inside the camera.
- 2. Mount the lens by aligning the white index marks on the lens and the camera.(Fig.2)
  - Hold the camera facing down to prevent dust from entering into the camera.
- 3. While pushing the lens lightly toward the camera, turn the lens clockwise until it clicks into the locked position.(Fig.3)
  - Be sure to put the lens on straight.



- When attaching a lens, do not press the lens release button.
- Do not use excessive force when attaching a lens.

#### Removing the Lens



Press the lens release button all the way in and turn the lens counterclockwise until it stops.



• If dust or debris gets inside the camera while you are changing the lens and adheres to the surface of the image sensor (the part that converts the light source to a digital signal), it may appear as dark spots on the image, depending on the shooting environment. The camera vibrates slightly when it is turned off, due to the anti-dust function, to prevent dust from adhering to the image sensor.

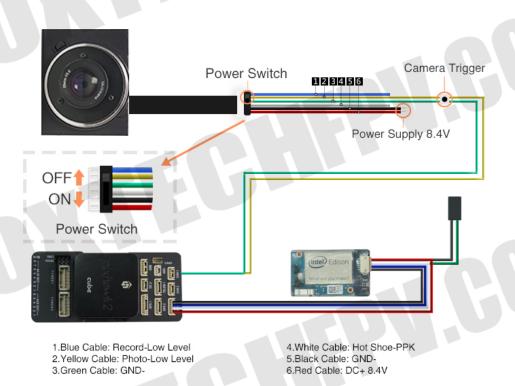
However, attach or remove the lens quickly somewhere away from dusty locations.

- If foreign material attaches to the image sensor, dust it off using a blower.
- Do not leave the camera with the lens removed.
- When you want to use body caps or rear lens caps, please purchase ALC-B1EM (Body cap) or ALC-R1EM (Rear lens cap) (sold separately).

## **Power Supply for Camera**

Power Connection: Connect the 2S (DC8.4V) positive wire to camera Pin 2(+), and negative wire to camera Pin 1(GND-).

Don't operate the camera immediately after power-on. After 15s self-checking, the camera will acquire the usual parameters for mapping, and it can meet he requirements of most missions. You also could set up the parameters by the menu button on the top of the camera.



This content is subject to change.

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