FOXTECH Map-01 Mapping Camera

User Manual

V3.0 2019.11

FOXTECH

Contents

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.

Checking the Supplied Items

Supplied Items

• Camera (1)

• Cable (1)

Identifying Parts
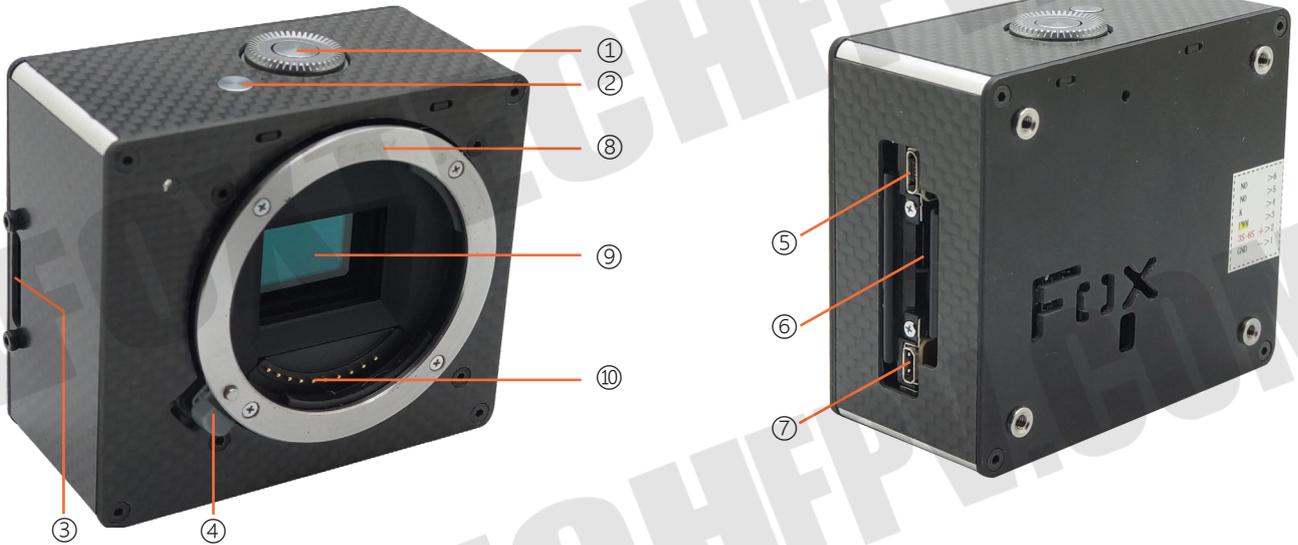
① Setting   ⑥ SD Card   1) Do not cover this part during moive recording.

② Menu   ⑦ USB   2) Do not touch this part directly

③ Camera Terminal   ⑧ Mount

④ Lens Release Button ⑨ Image Sensor [1]

⑤ HDMI   ⑩ Len Contacts [2]

6 Pin 6-Hotshoe-PPK

5 Pin 5-Hotshoe-PPK

4 Pin 4-Manual Trigger

3 Pin 3-PWM Signal Input

2 Pin 2-Power (3S-6S, DC11.1V-DC26V)

1 Pin 1-GND

Optional Mapping Lens

E16mm F2.8   E20mm F2.8   E25mm F5.6   E35mm F1.8

Specifications

Item Name	Map-01 Mapping Camera	
Sensor Type	Exmor APS HD CMOS APS Frame(23.5*15.6mm)	
Number of Pixels(Effective)	24.3 MP	
Image Size(Pixels)	3:2	16:9
	L(24M): 6000x4000	L(20M): 6000x3376
	M(12M): 4240x2832	M(10M): 4240x2400
	S(6M): 3008x2000	S(5.1M): 3008x1688
Image Quality Modes	RAW / RAW+JPEG	
Lens Compatible	E35mm F1.8 / E20mm F2.8 / E16mm F2.8	
Focus	Mix Automatic Focus / Manual Focus / 4D Focus	
Shutter Speed	30-1/4000 sec	
Exposure Modes	Programmed AE(P) / Aperture priority(A) / Shutter-speed priority(S) / Manual(M)	
Exposure Compensation	±3EV(1/3EV)	
Metering Mode	Multi-pattern / Center-Weighted / Spot Metering	
White Balance	Auto / Default	
ISO Sensitivity	ISO 100-25600	
Image Stabilization	Optical Anti-shake(Lens Anti-shake)	
Continuous shooting	Up to 6FPS	
Storage Card Type	SD / SDHC / SDXC Card / MS	
Working Voltage	3S-6S(DC11.2V-DC26V)	
Interface	HDMI USB2.0	
Shuttle Control	PWM	
Shutle Feedback	Relay(Max.Voltage: DC32V Max.Currency: 130mA)	
Body Martial	Carbon Fiber / Aviation Aluminum	
Dimension	80x70x38mm	
Weight	155g(Lens Excluded)	
Working Temperature	-10℃ ~55℃	

Attaching/Removing the Lens

Lens are optional. For purchase please contact Foxtech sales.

Attaching the Lens

Fig.1

Fig.2

Fig.3

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

Lens Release Button

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 3S-6S (DC7.5-8V) 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.
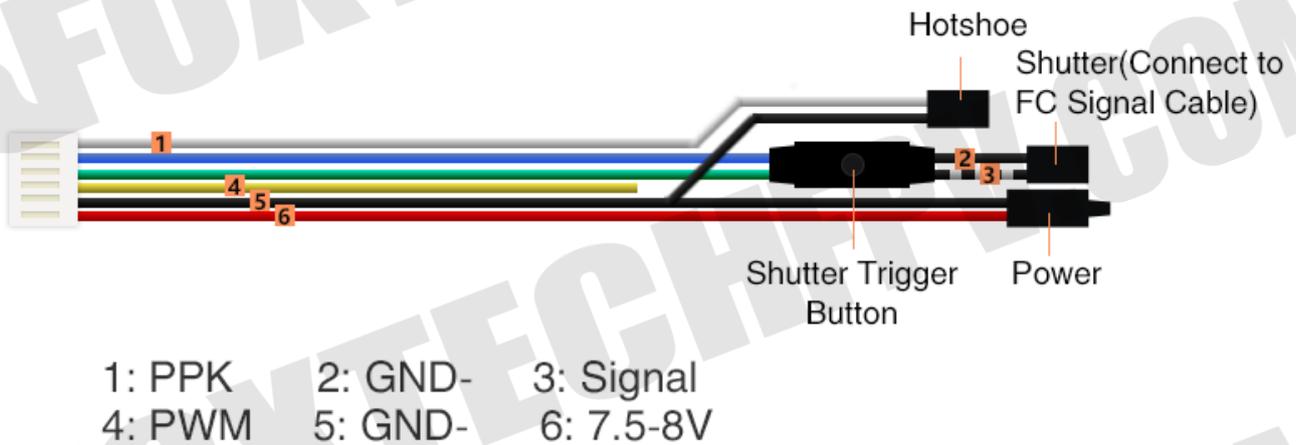
Hotshoe

Shutter(Connect to FC Signal Cable)

Shutter Trigger Button

Power

1: PPK   2: GND-   3: Signal
4: PWM   5: GND-   6: 7.5-8V

Set Camera Language

Control wheel

Select items: ▲/▼/◀/▶/↖/↙
Set: ●

1. Check that [Enter] is selected on the screen, then press ● on the control wheel.

2. Set [Language], then press ● .

3. Check that [Enter] is selected, then press ●.

Set Camera Date

1. Check that [Enter] is selected on the screen, then press ● on the control wheel.

2. Set [Date/Time Setup] and [Date Format], then press ●.

   • When setting [Date/Time], midnight is 12:00 AM, and noon is 12:00 PM.

3. Check that [Enter] is selected, then press ●.

Set Release w/o Lens

1. Check that [Enter] is selected on the screen, then press ● on the control wheel.

2. Set [Release w/o Lens] , then press ●.

3. Set [Enable], then press ●.

4. Check that [Enter] is selected, then press ●.

Settings for New Storage Card
Format the New Storage Card

1. Please format the card when you use a new storage card.

2. Set [Enter] , then press ● .

Set Exposure Time

ISO: Allows you to set the sensitivity based on the brightness. For this E25mm F5.6 lens, recommended time of exposure is 250s. Set different exposure time depending on the type of lens.
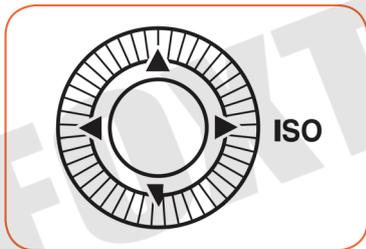
Save Settings of the Camera

Move down the switch when the camera is powered to save settings, move up the switch when the power is attached will re-power the camera with new settings.
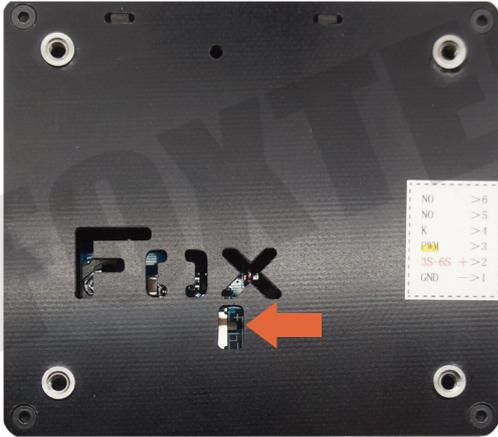
Connect Camera to Pixhawk 2.1 and Reach PPK&RTK

1. Connect according to FC shutter signal type: Connect PWM signal wire to camera Pin 3 (PWM) and Pin1 (GND-).

2. Shutter Feedback for PPK: When used with PPK system, please lead out the camera Pin 5 (NO) and Pin 6 (NO), and connect them to PPK or RTK system.
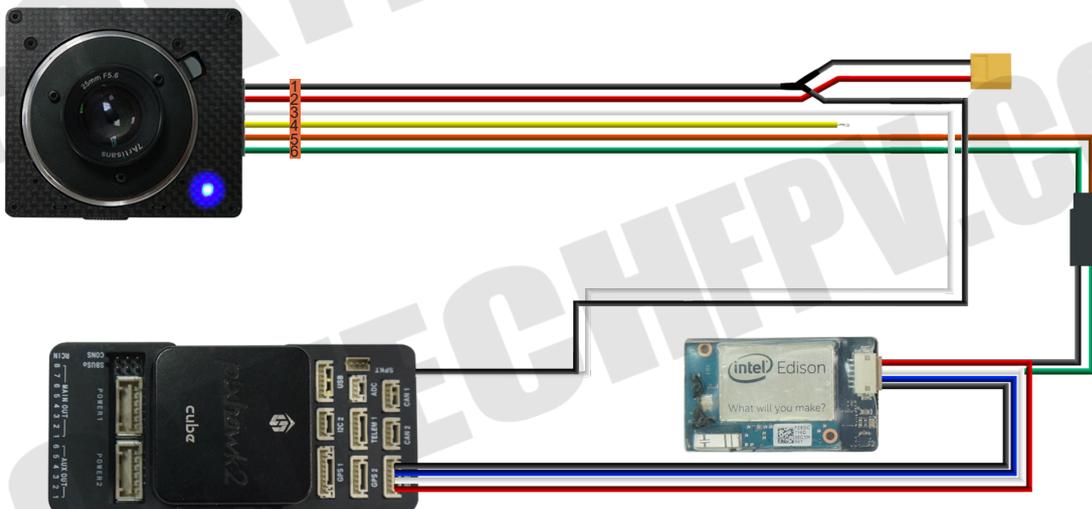
Notes on Using the Camera

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

This content is subject to change.

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