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# FOXTECH FH318

## 1080P 18X OPTICAL ZOOM CAMERA

### WITH 3 AXISES GIMBAL

## User Manual

### Warning and Disclaimer

Please do not adjust the gimbal or change its mechanical structure, before power on the gimbal, the camera must be assembled on the gimbal, and the whole gimbal is assembled to the drone.

External equipments (filter or sunshade, ect) is not allowed to add on the camera, the original camera is preferred for this gimbal to have a good and stable performance, in case a damage due to un-balanced load.

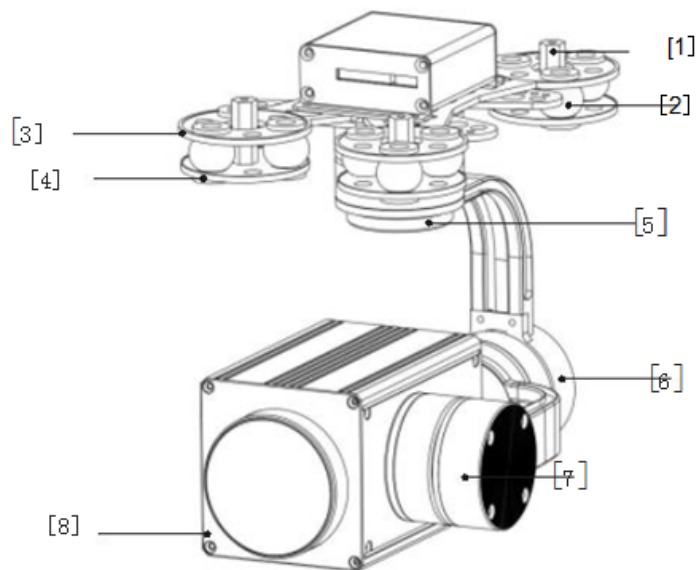
Please make sure that the main controller of the flight control system on the drone is in a safe working environment when it powered on. We suggest to remove the propellers when setting the gimbal data, using a un-dynamic power system as a power source for gimbal, and keep the it far away from children.

Since we can not control the user's specific use, installation, assembly, modification (including the use of un-authorized parts) and improper, if any direct/indirect damage or injury caused by the above items, the corresponding loss and liability is not on us.

### General Introduction for Gimbal

1. Adjustable speed: When you use cameras in a large zoom range, please use it with a slow speed, to achieve more accurate control. A fast speed is recommended to use when zoom range is small, the control can be more sensitive and quick.
2. One-key back function: push on bottom, the gimbal return to the initial position automatically.
3. Support PWM control and serial command control, suitable for remote controlling in a short distance or digital transmit control in a long distance.

## Description of gimbal

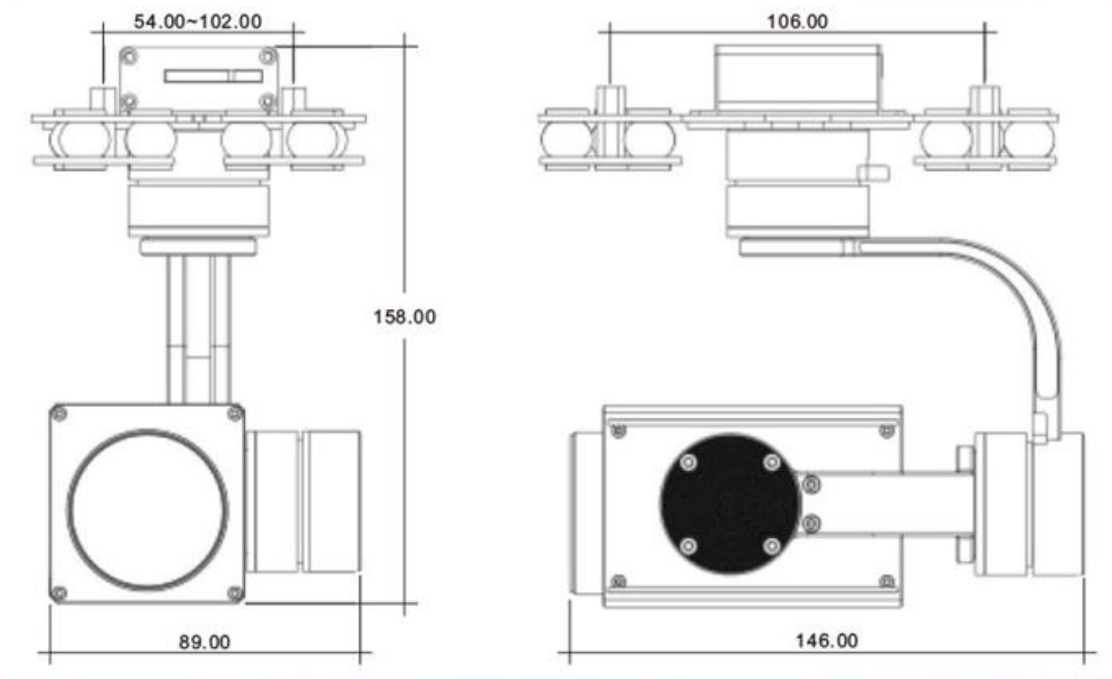


- |                         |                         |
|-------------------------|-------------------------|
| [1] Copper standoff     | [5] Motor for direction |
| [2] Rubber damper       | [6] Motor for rolling   |
| [3] Upper damper board  | [7] Motor for pitch     |
| [4] Bellow damper board | [8] HD Optical camera   |



Please ensure that the motor is not blocked by any items during the rotation, removing obstacles is necessary if the gimbal is blocked when rotating.

Dimension (mm)



How to assemble



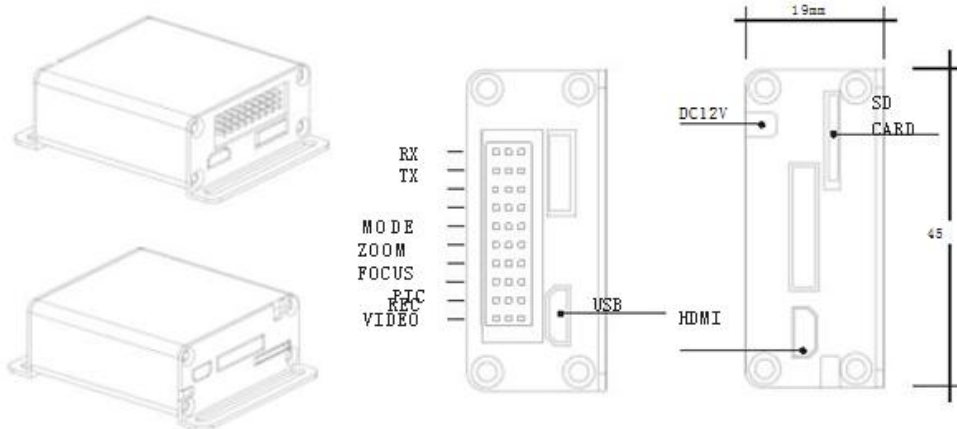
### Gimbal specification

Working voltage	3S(1.1V)	Static current	330mA@12v
Dynamic current	450mA@12V	Working environment	-10~+50 °C
Dimension	L137*W88*H135mm	Weight	540g

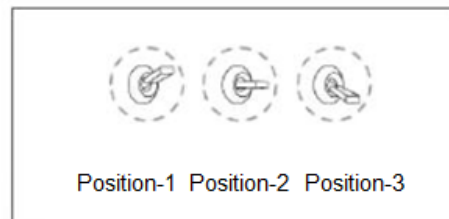
### Features

Pitch angle range: -90~ 90 degree, rolling angle range -85~+85 degree
Direction angle range: -150~ 150 degree no pole rotation
Angular shake: pitch and rolling: 0.02 degree, horizontal: 0.03

### Gimbal Wiring Hub



### 3 Modes and Channels of Gimbal and Function

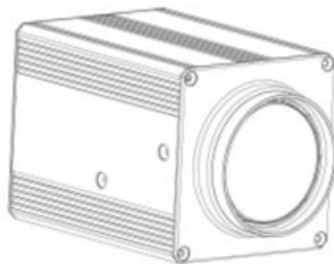


- Fast switching 2 times between the position -2 and -1, the gimbal return to middle position
- Fast switching 3 times in the position -2 and -1, the gyro calibrating
- Fast switching 4 times in the position -2 and -1 gyro temperature calibration, after calibration is completed, the need to restart.
- Fast switching 5 times in the position -2 and -1 the accelerometer calibrating



Please ensure that the motor is not blocked by any items during the rotation, removing obstacles is necessary if the gimbal is blocked when rotating.

### Features of camera



1. 18X optical zoom, Full HD 1080p video stream, transmission out of the 1080P@60 frame; local storage with HDMI output with a fine coaxial line out to facilitate, easy storage and HD output. Sensor 400 million pixels, take photos up to 14 mega pixel, Car license can be seen in a 200M distance
2. Speed autofocus, focusing speed is less than 1 second.
3. Mult-function ports, analog video output, HDMI output, support SD card photos, video storage, PWM controls camera zoom automatically, or manual focus, taking pictures, recording videos, support serial control camera.