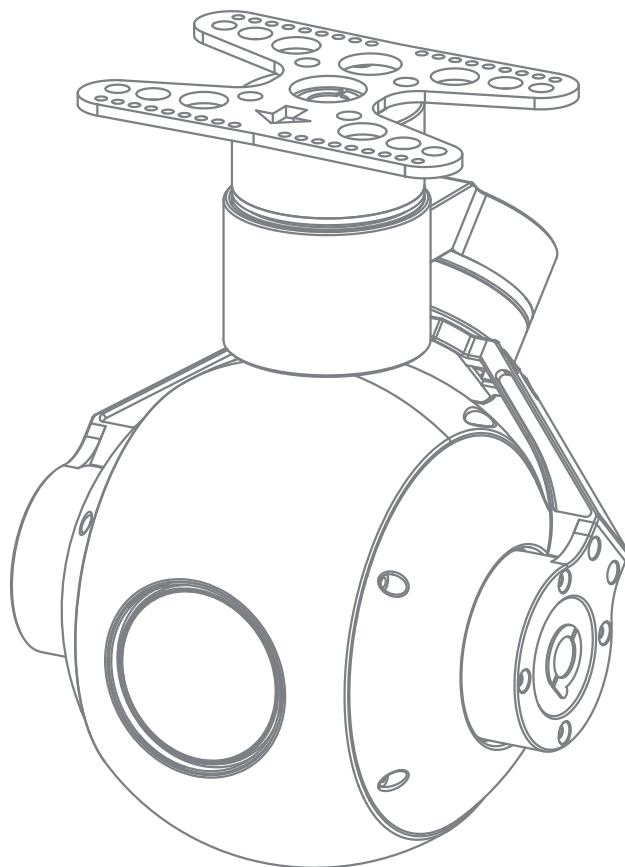




## Sky Eye-30HZ-S

### 30x Optical Zoom Object Tracking Gimbal Camera



### Warning and Disclaimer

Make sure not to adjust the gimbal or change its mechanical structure by yourself. Be sure to mount the camera to gimbal before power on, and then install the gimbal on the aircraft.

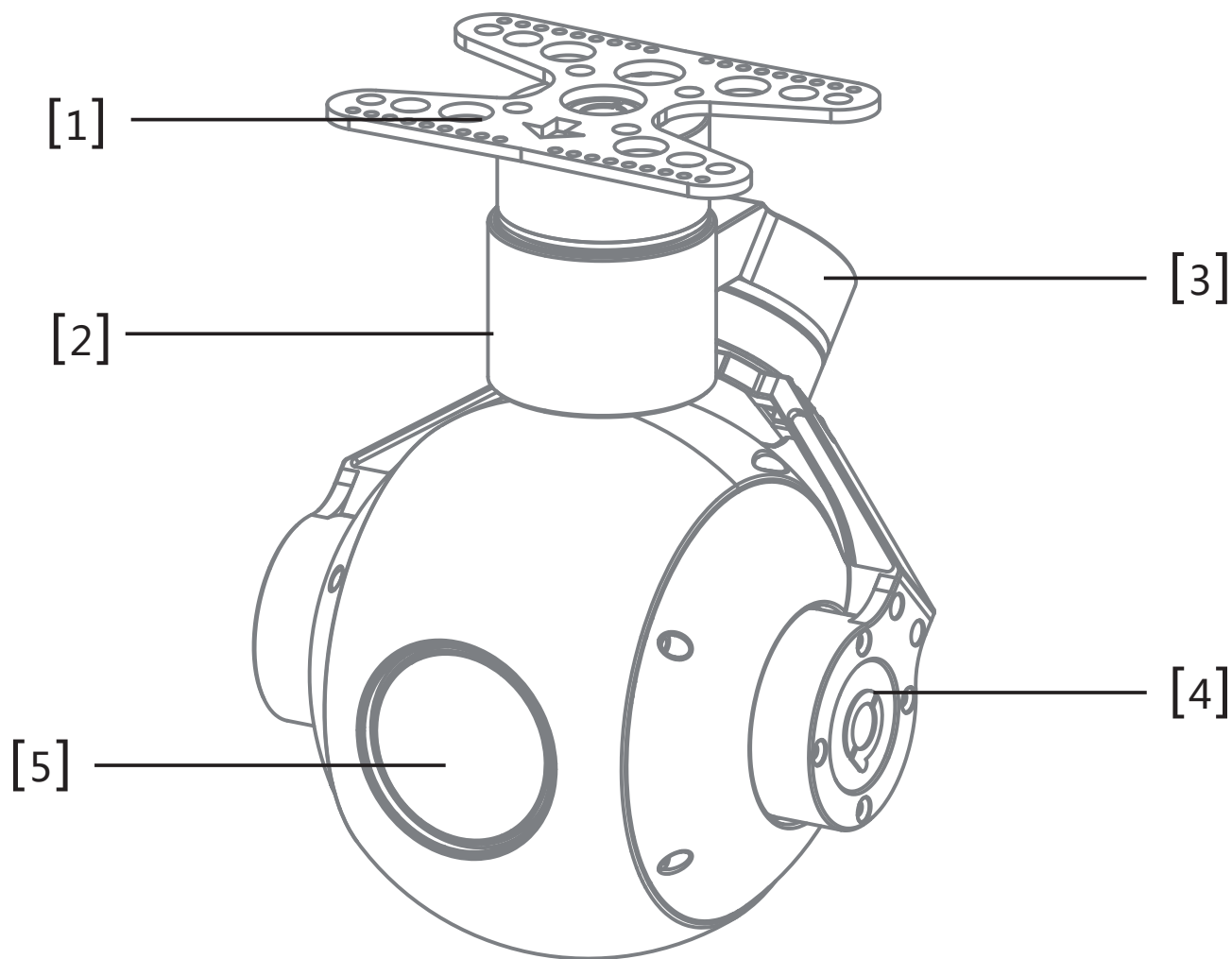
To avoid gimbal performance degradation or damage caused by imbalanced payload, please do not add other peripherals for the gimbal camera (filter, hood, etc).

When in aerial photography, make sure your aircraft flight control system is working at the safe mode.

We strongly recommend that you remove aircraft propellers before doing gimbal configuration. Use extra non-power battery for gimbal. Keep children away from the preset flight region.

Considering that we are not able to control user's specific usage, installation, assembly, modification (including the use of non-specified parts), and improper use. Direct or indirect damage or injury caused by the behavior above, our company will not cover any loss and responsibility.

## Gimbal description



[1] Damping board

[3] Roll axis motor

[5] FHD zoom camera

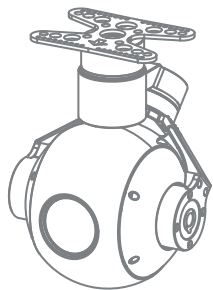
[2] YAW axis motor

[4] Pitch axis motor

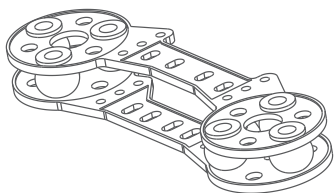


Please make sure that the motor is not stopped by any object during the rotation, if the gimbal is blocked during rotation, please remove the obstruction immediately.

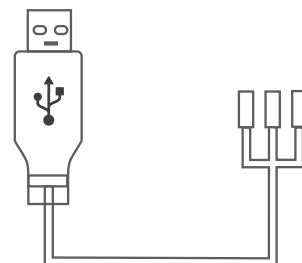
## Packing List



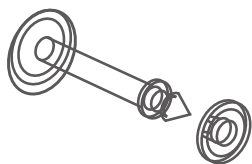
Gimbal camera\*1



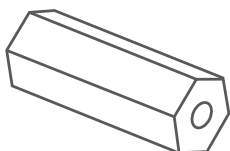
Damping board\*2



USB to TTL \*1



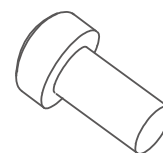
Anti shedding buckle\*4



Copper cylinders\*4



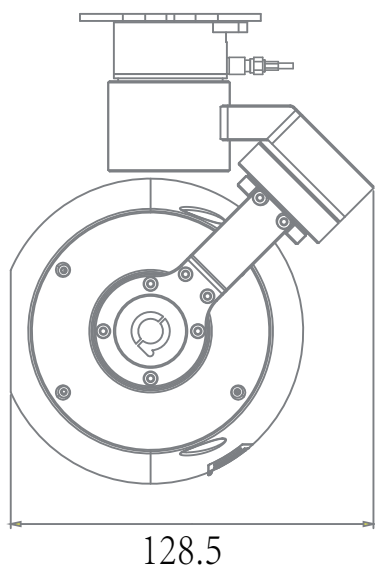
5mm\*12



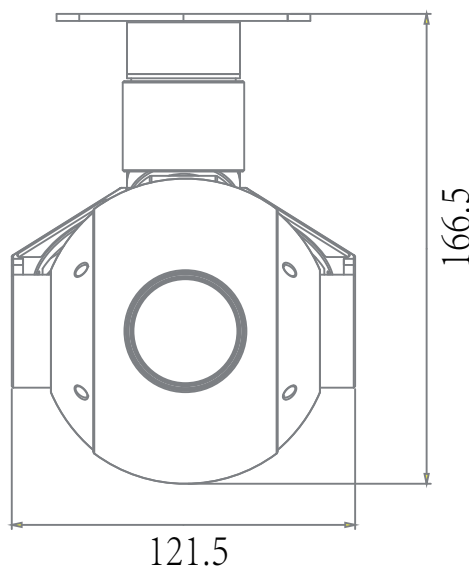
8mm\*4

Button head hexagon screw\*16

## Gimbal Camera Dimension



128.5

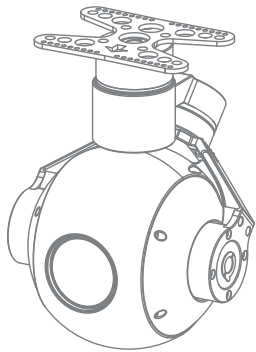


121.5

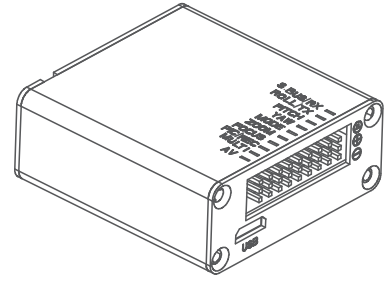
166.5

Unit :mm

# Connection of Control Box and Wiring Instruction

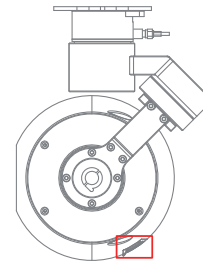


← Control Box position



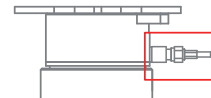
1. Insert SD card

SD card: max 128G , class10  
FAT32 or exFAT format



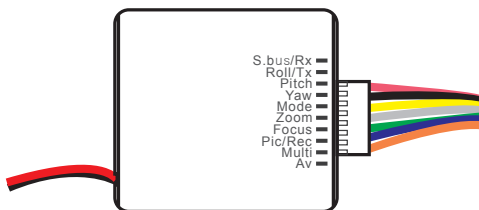
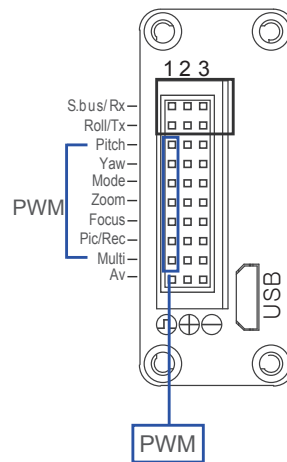
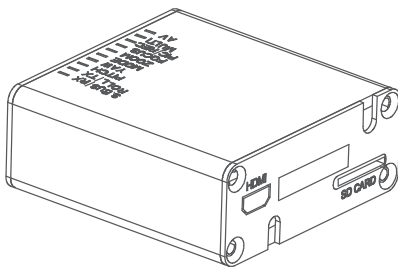
SD card position

2. Connect SDI to display  
SDI output

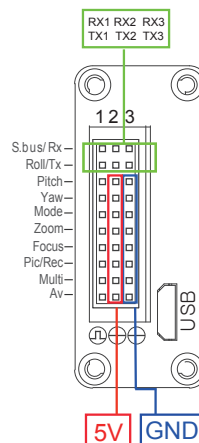
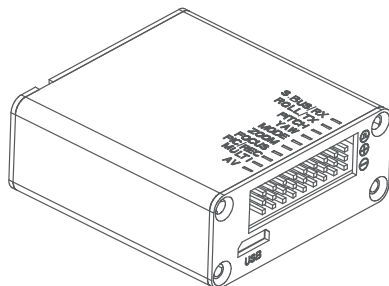


SDI position

3. Connect the signal line as below



4. Power supply with 12V ~ 16V,  
red line is positive and black is negative.



## Function Description

### Gimbal control

1. Yaw axis control:speed mode,connect Rocker channel(or 3 gears channel,push gear to middle position to stop)
2. Pitch axis control:speed mode,connect Rocker channel(or 3 gears channel,push gear to middle position to stop)
3. Mode control:angle mode,connect knob channel(speed mode:connect 3 gears channel or rocker channel)

If connecting knob channel,rotate to one end,the gimbal is at lowest speed when controlling YAW and PITCH axis.

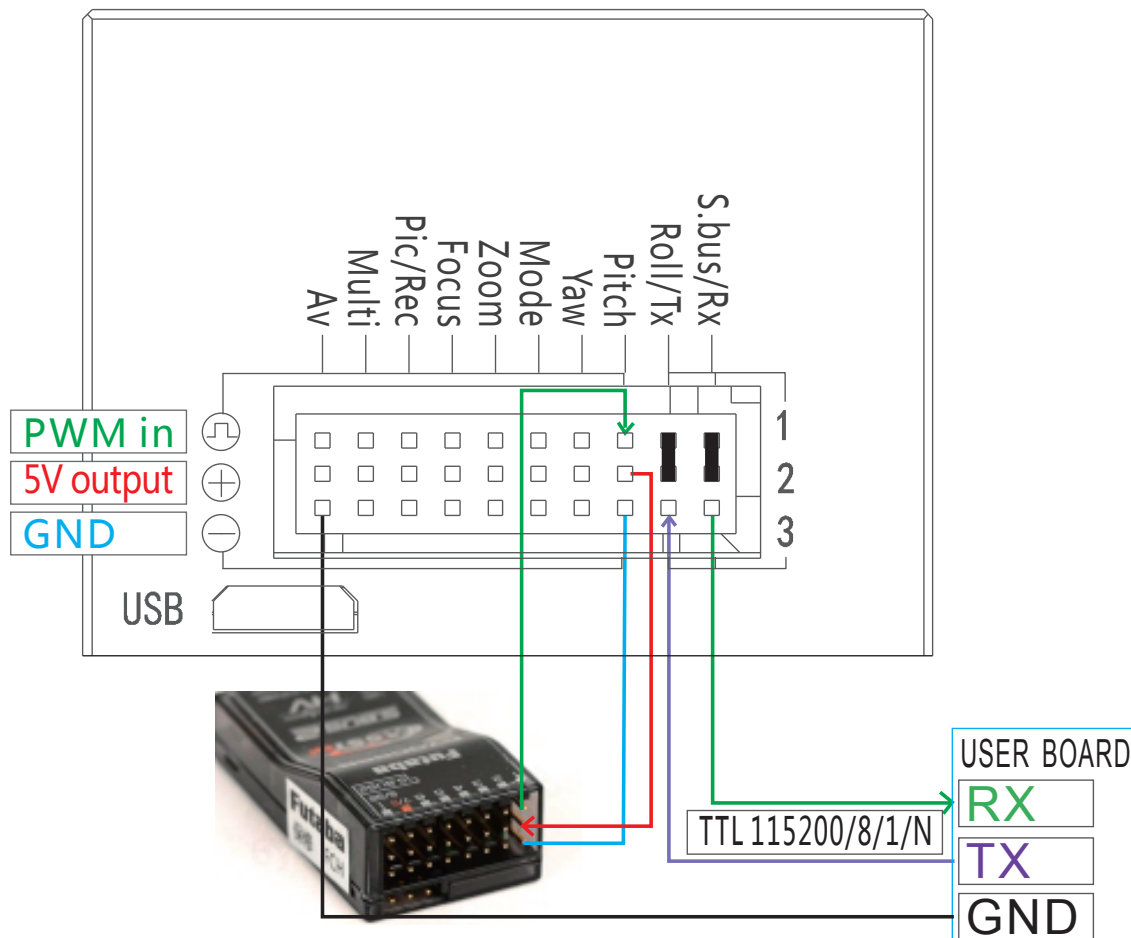
Rotate the knob to any position,gimbal is at higher speed when controlling YAW and PITCH axis.Rotate to knob to another end,gimbal back to center position.

4. Multi:tracking control,connect 3 gears channel
  - **Middle to low** : quit tracking mode,cursor disappear
  - **Low to middle** : go to tracking mode,cursor appear
  - **Middle to high** : one square appears,object is locked,tracking is activated
  - **Middle to high again** : re-track mode,cursor appears in the square.Gimbal is still tracking the object,now you can move the cursor to track another object (middle tohigh gear again).

## Camera control

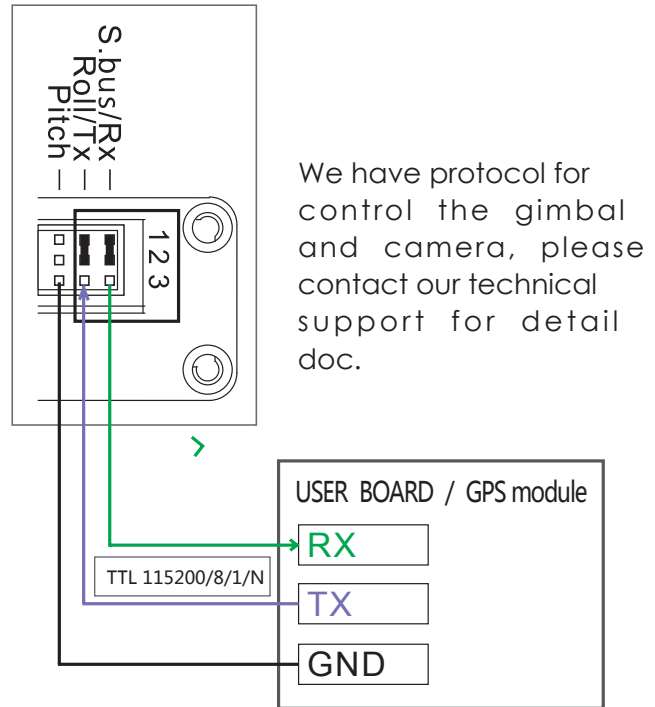
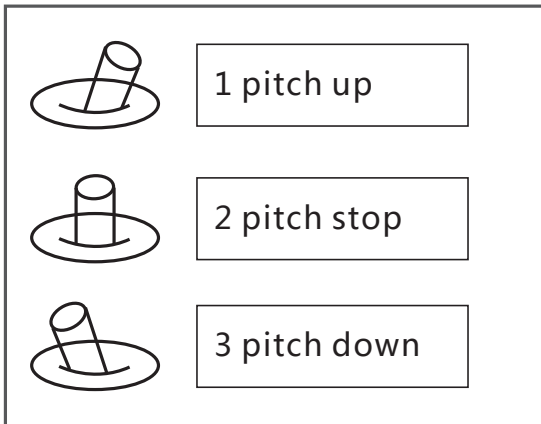
1. Zoom control:connect 3 gears or rocker channel
2. Focus:connect 3 gears or rocker channel for manual focus control.If do not connect any channel,then camera will auto focus after zooming
3. PIC/REC:taking picture/recording,connect 3 gears channel
  - Middle to high,recording start
  - Middle to high again,recording stop
  - Middle to low,taking picture
  - Middle to low,taking another picture

## Signal functions



Pitch: PWM in, pitch control

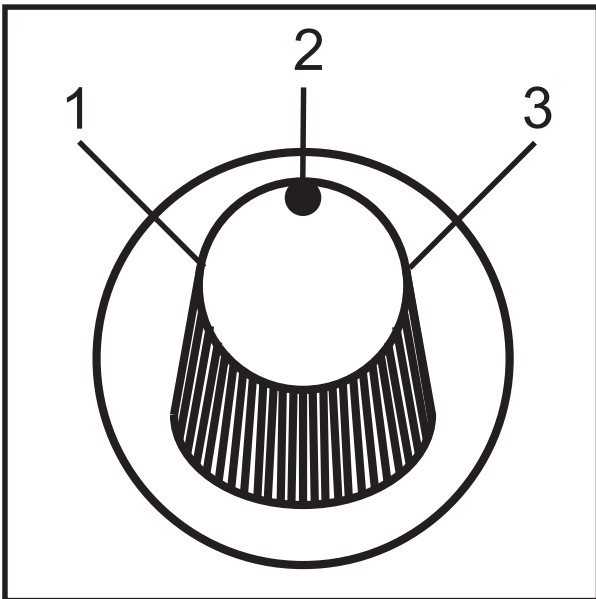
### Pitch: PWM in, pitch control



### Yaw: PWM in, Yaw control



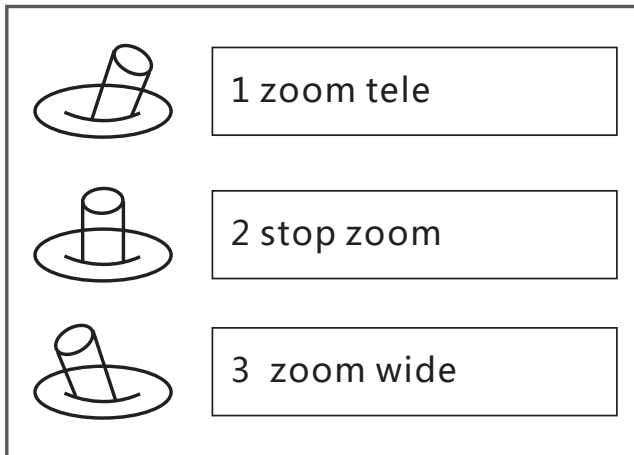
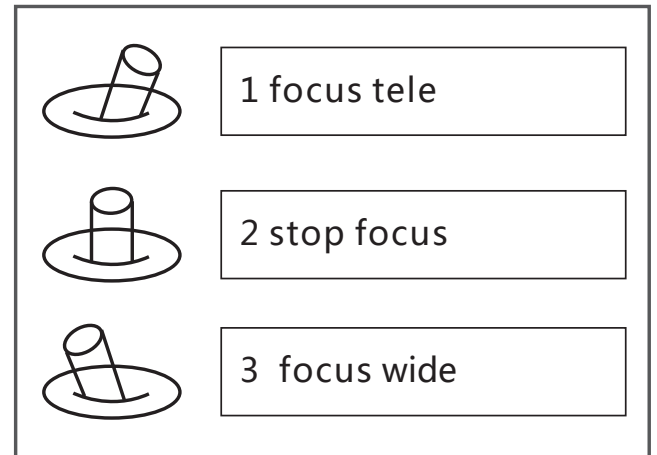
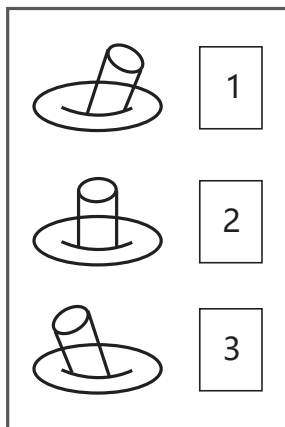
### Mode: Change the speed / home position



- Position 1: Lowest speed for pitch and yaw.
- Position 2: Middle speed for pitch and yaw.
- Position 3: Highest speed for pitch and yaw.

**The speed is continuously quickly from 1 to 3.**

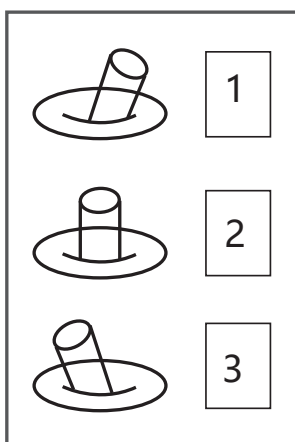
- One click: Home position.
- Two click: Look down.
- Three click: Yaw not followed by frame.

**ZOOM: Zoom the camera****Focus: Focus the camera****Pic /Rec picture / Start record, stop record**

Switch 2 to 1: Start record / stop record.

Start record, the OSD display rec hh:mm:ss ;  
Stop record, the OSD display STBY.

Switch 2 to 3: take a picture. OSD display 'REC IMG' for a second.

**Multi: Tracking control**

1. Position 1 exit the tracking

Switch 1 to 2: Display the cross cursor.

Adjust the object to the cross cursor.

2. Switch 2 to 3: start tracking. Change the object during tracking

Switch 3 to 2: Display the cross cursor, use Pitch/Yaw to adjust the cross cursor.

**AV: NO AV output**



**30X zoom camera(SONY FCB-EV7520)**

Sensor	1/2.8 inch 2.13MP CMOS SENSOR
Video Output	1080P/60 HDMI and Ethernet
Video recorded	1080P/30 MP4
Focal length	30X optical focal zoom, 4.3-129mm
Digital zoom	12X(360X with optical zoom)
Horizontal viewing angle	1080p mode: 63.7°(wide end) ~ 2.3°(tele end)
	720p mode: 63.7°(wide end) ~ 2.3°(tele end)
	SD: 47.8°(wide end) ~ 1.7°(tele end)
Wide Dynamic	Up to 105dB
Auto focus	Less than 1S
Low illumination	0.05lux@F1.6
Aperture	Φ 16.0

**Gimbal system**

Input voltage	3S-4S
Rotate range	Pitch: ±90° Roll: ±45° Yaw: ±150°
Angle amount of jitter	Pitch and roll: ±0.02° Yaw: ±0.03°
Control interface	PWM, S.Bus, serial command, and software control via Ethernet
Working Current	Static current: 330mA(@12V)
	Dynamic current: 450mA(@12V)

**Mechanical feature**

Total weight (gimbal and camera)	848g
Working temperature	-25° ~ +60°