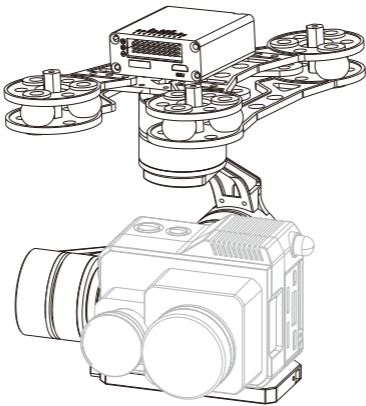




User manual

Z -duo pro

Z-Duo Pro Gimbal



Images are for reference only, please subject to the actual product.

Contents

Z-DUO PRO Pinpoint-precision Gimbal

1.Gimbal introduction.....	2
2.Gimbal description.....	2
3.Packing list.....	3
4.Gimbal dimension.....	3
5.Installing.....	4
6.Mechanics@Electronic characteristics.....	4
7.Working characteristics.....	4
8.Gimbal's signal wire box.....	5

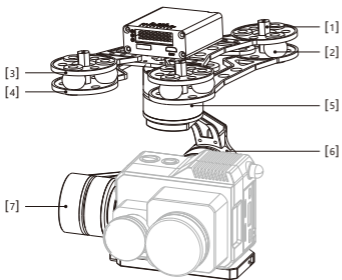
Gimbal Introduction

Z-DUO PRO is tailored for FLIR DUO pro with a pinpoint-precision, three axis gimbal, which adopts pinpoint-precision encoder in each motor, use FOC algorithm controller, it has the advantages of high stability, small size, light weight and low power consumption.

The speed of Z-DUO PRO gimbal is adjustable, LOW speed mode is used for large zoom range, the control will be more accurate; Fast speed mode is used for small zooming range, which makes the gimbal control sensitive and quick. Also the one-key to center function will allow the gimbal return to initial position automatically and rapidly.

Z-DUO PRO supports both PWM control and serial command control, suitable for close range remote control or remote data command control.

Gimbal Description



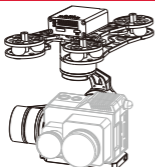
- [1] Gimbal fixed copper cylinder
- [2] Damping balls
- [3] Upper damping board
- [4] Lower damping board
- [5] YAW axis motor
- [6] Roll axis motor
- [7] Pitch axis motor



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.

Gimal Dimension

Gimbal*1



Screw pack*1

M3*5mm button head
Hexagon screw*4

Copper cylinders*4

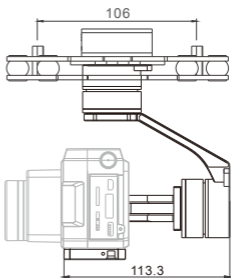
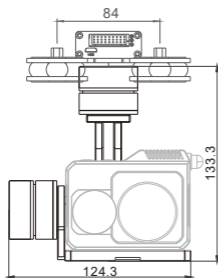


Damping balls*12

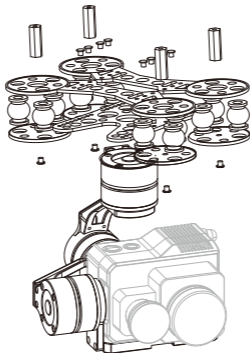


Installing

Unit: mm



Installing



Mechanics@Electronic Characteristics

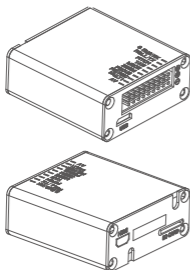
Input voltage	3S~ 4S	Idle current	330mA@12V
Dynamic current	450mA@12V	Working environment temp	-10° C ~+50° C
Size	L105.3 *W 113.3*H133.3mm	Weight	400g

Working Characteristics

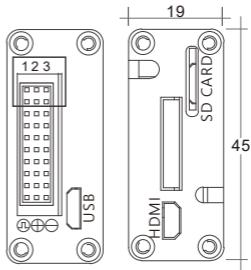
Pitch angle range of action: $\pm 90^\circ$
Roll angle range of action: $\pm 85^\circ$
Yaw/Pan: Yaw angle range of action : $\pm 150^\circ$
Vibration angle: Pitch/Roll: $\pm 0.02^\circ$, Yaw: $\pm 0.03^\circ$

Connection of Control Box and Wiring Instruction

Unit:mm

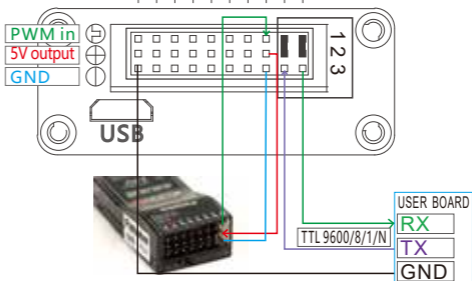


S.bus/Rx
Roll/Tx
Pitch
Yaw
Mode
Zoom
Focus
Pic/Rec
Multi
Av



PWM 1 — Zoom
PWM2 — Focus
PWM3 — Pic/Rec

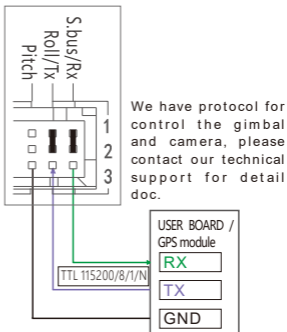
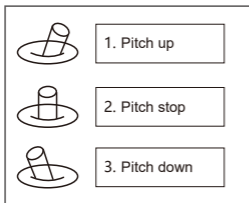
S.bus/Rx
Roll/Tx
Pitch
Yaw
Mode
Zoom
Focus
Pic/Rec
Multi
Av



S.bus/Rx: connect to Rx2 for track function.

Roll/ Tx: connect to Tx2 for track function.

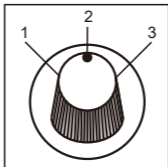
Pitch: PWM in, pitch control



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: Yaw not followed by frame.

Three click: Yaw followed by frame.