



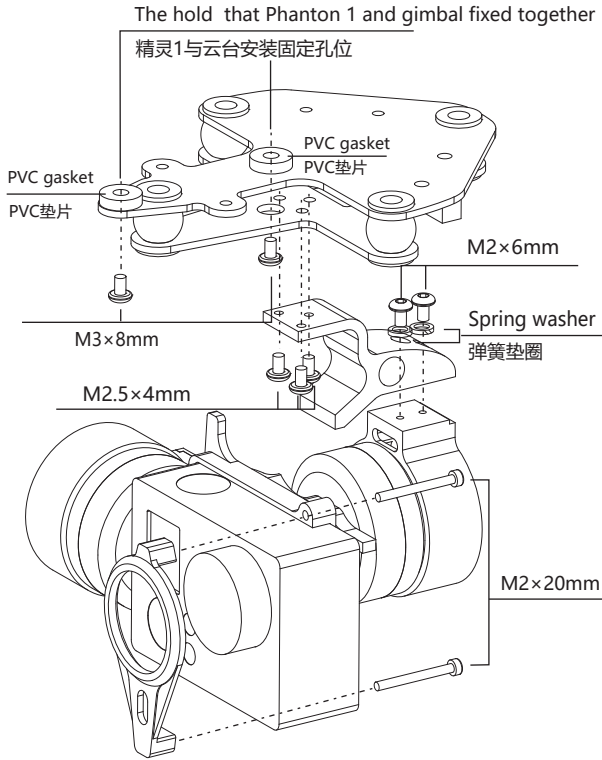
FY-G3 2-Axis Brushless Gimbal for Phantom

G3两轴无刷云台(精灵版)安装说明书

Applicable to the firmware V1.25 and above version 适用于V1.25及以上版本固件

Inverted installation

倒挂安装方式



Power Interface

电源接口

Receiver Interface

固件升级/接收机接口

Motor control and power interface

电机控制与电源接口

Button for adjusting pitch

俯仰调整按键

Hexagon socket button head screw
圆柱头内六角螺钉 (M2x25mm)×2

Hexagonal socket head cap screw
平圆头内六角螺钉 (M2x6mm)×2

Hexagonal socket head cap screw
平圆头内六角螺钉 (M3x8mm)×2

Hexagonal socket head cap screw
平圆头内六角螺钉 (M2.5x5mm)×4

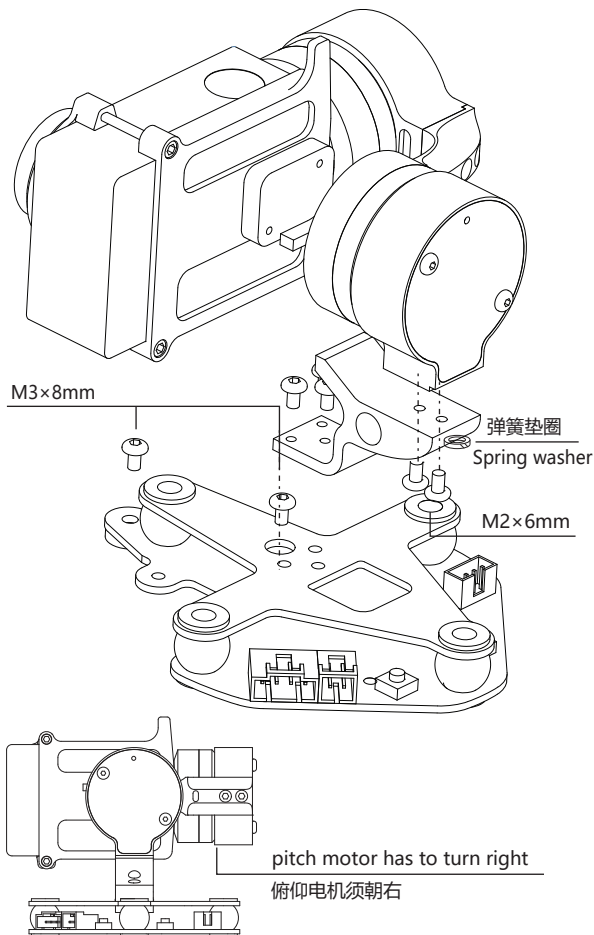
Hexagonal socket head cap screw
平圆头内六角螺钉 (M2.5x4mm)×3

Ø 3 PVC gasket
Ø 3 PVC垫片

Spring washer
弹簧垫圈×2

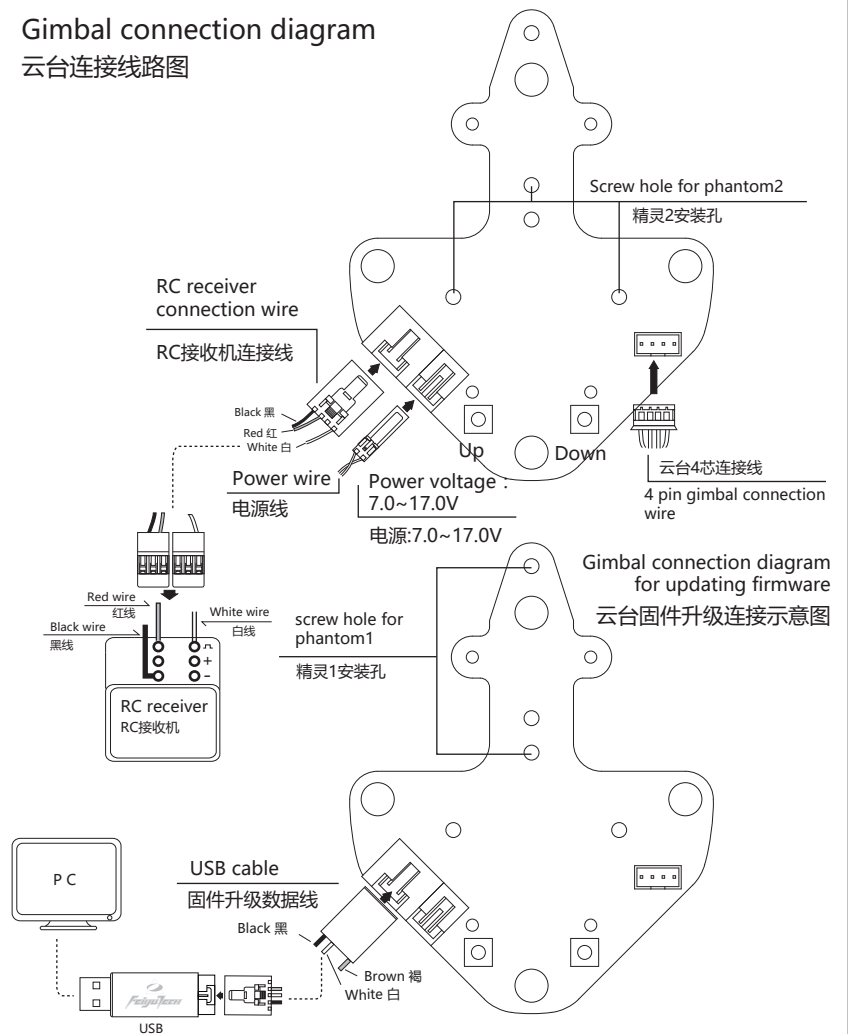
Vertical installation

垂直安装方式



Gimbal connection diagram

云台连接线路图

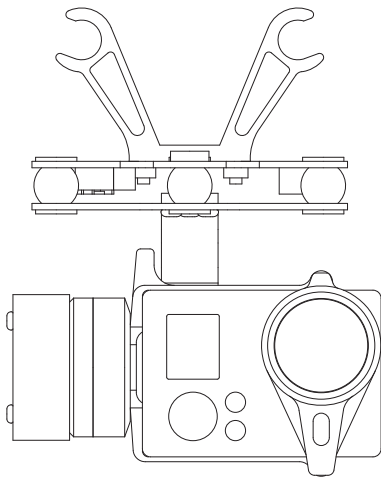




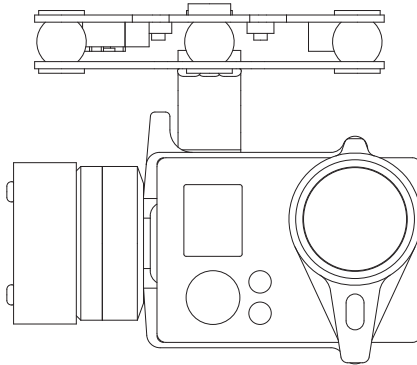
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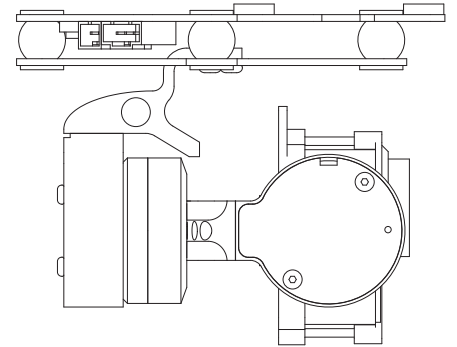
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- 1 -



- 2 -



- 3 -

Installation Instructions:

1. You can assemble the gimbal properly according to the drawing, and then install the GOPRO3 video camera on it. The camera mount currently is only suitable for GOPRO3, for other kinds of cameras, you can design the mount by yourself or concern Feiyu Technology, and we will release more camera mount accessories in the near future.
2. There is no need to set up and adjust the parameter. Power on the Gimbal, and then keep it static for a while, after its reset, the gimbal will be in a level position automatically. Then you can use it normally.
3. Pitch and roll angle will default back to horizontal position, if gimbal didn't connect with RC receiver. But, You can adjust pitch angle (only pitch angle) by up and down button. In RC receiver mode, please be sure that connect RC receiver first and check RC receiver have entered working state well before you power gimbal on. After power on, you can use remote control to adjust pitch and roll angle.
4. Press "UP" and "DOWN" buttons at the same time for 3 second, the indicator light at the back of roll motor will bright red light. This will enter the roll adjustment mode. You can adjust the roll angle by press "UP" or "DOWN" button (The adjustable range: -8° to $+8^{\circ}$). After finish the adjustment, you can press "UP" and "DOWN" buttons at the same time for 3 second, the red indicator light will turn off then exit the roll adjustment mode.

Tech Specification:

TECH SPEC	Min-working voltage	Standard working voltage	Max-working voltage	Remark
Working Voltage	7.0V	12.0V	17.0V	2S~4S LIPO
Static attitude tracking accuracy	$\pm 0.01^{\circ}$		$\pm 0.04^{\circ}$	
Motion attitude tracking accuracy	$\pm 0.1^{\circ}$	$\pm 0.2^{\circ}$	$\pm 0.5^{\circ}$	
Overload protection			0.8A	
Overload protection time			600s	After overloaded 600s, Gimbal will stop working automatically.
Max-torque			330us	
Controlled pitch angle accuracy	$+ 45^{\circ}$	0°	$- 90^{\circ}$	It can be adjusted by button or RC receiver.
Controlled Roll Angle Accuracy	$- 45^{\circ}$	0°	$+ 45^{\circ}$	Only for RC Mode, 1667us is horizontality.
Pitching Angle control rate		$10^{\circ}/S$		
Weight		178g		

The gyroscope need to make initialization when in following several situation :

(1) When the gimbal activate the level angle have a deviation. (2) The gimbal has not been used for a long time. (3) There is a change in environmental temperature of over 20 degrees.

Process of gyro reset: Firstly placed the gimbal on a table and keep static, then power on the gimbal and wait for the gimbal activate. After about 10second the gimbal begin working, at this time the gyroscope initialization is complete.

Firmware upgrade: The Gimbal supports firmware upgrade: You can download the upgrade software and the latest firmware from www.feiyu-tech.com

安装说明:

1. 按照图纸正确的组装云台, 先不要通电, 把GOPRO3摄像机安装到云台上。目前的相机安装座只适合安装GOPRO3摄像机, 其它摄像机需可以自行设计安装座或者关注飞宇科技发布的相机安装座配件。
2. 无需要设置和调整参数。接通云台电源, 保持云台静止, 等待云台初始化完成后自动将云台回到水平位置, 然后可以正常使用了。
3. 如果没有连接RC接收机, 俯仰、横滚角将默认回到水平的位置, 这个时候可以通过按钮 (UP, DOWN)来调整俯仰角。
若使用接收机控制模式, 请在云台通电之前连接RC接收机并且确保接收机已经处于工作的状态, 云台上电之后可以通过遥控通道来调整俯仰和横滚角度。
4. "UP" 和 "DOWN" 两个按钮同时按下3秒, 云台横滚电机后面的指示灯红灯常亮, 进入横滚调整模式。这时通过按钮可以调整云台的横滚角, 调整完毕后, 同时按下 "UP" 和 "DOWN" 两个按钮3秒, 红色指示灯熄灭, 退出横滚角调整模式。

下面几种情况需要进行陀螺仪初始化:

(1) 云台启动水平角度上有偏差。(2) 如果长时间不使用。(3) 或者温度变化超过20度。

初始化过程如下: 先把云台静止放置在桌面上, 然后打开电源开关, 等待云台启动。大约10秒后云台工作, 陀螺仪初始化完成。

固件升级说明: 可以在网站 www.feiyu-tech.com 下载云台的升级软件和最新控制固件。

特性参数:

项目	最小	标准	最大	备注
工作电压	7.0V	12.0V	17.0V	2S~4S LIPO
静止姿态跟踪精度	$\pm 0.01^{\circ}$		$\pm 0.04^{\circ}$	
运动姿态跟踪精度	$\pm 0.1^{\circ}$	$\pm 0.02^{\circ}$	$\pm 0.5^{\circ}$	
电机过载电流保护			0.8A	
电机过载保护时间			600s	电机过载600s后自动停止工作
电机输出最大力矩			330us	
俯仰角可调范围	$+ 45^{\circ}$	0°	$- 90^{\circ}$	可以通过按钮调节或者通过连接RC接收机调节
横滚角度可调范围	$- 45^{\circ}$	0°	$+ 45^{\circ}$	RC接收机模式下可用, 1667us脉宽为水平状态
俯仰角控制速率		$10^{\circ}/S$		
重量		178g		

