

SKYDROID 云卓

Skydroid C10用户手册

V1.0



小型高清三轴云台

泉州云卓科技有限公司

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云卓官方群2群



云卓微信公众平台

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- 港澳台及海外客户的售后问题发至邮箱 sales01@skydroid.xin,具体售后细则视情况而定。

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C10云台出厂前已根据其所搭载的相机和镜头完成调试,切勿自行调整云台或者改变其机械机构,也不要为云台增加其他外接设备。云台结构精密,请勿自行对C10作任何拆装,否则将会导致云台相机工作异常。

为了您和他人的安全,请确保云台调试时,飞行器处于安全的状态,不在易燃易爆及有儿童的环境下通电调试,强烈建议您在调试前取下飞行器的螺旋桨。

A) 环境温度:-10°C~+60°C

B) 贮存温度:-25°C~+60°C。

C) 大气压力:86kPa~106kPa

D) 使用地点不允许有爆炸危险的介质,周围介质中不应含有腐蚀金属和破坏绝缘的气体及导电介

质,不允许充满水蒸气及有严重的霉菌存在。

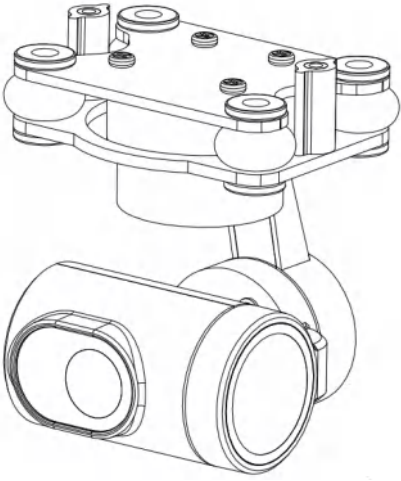

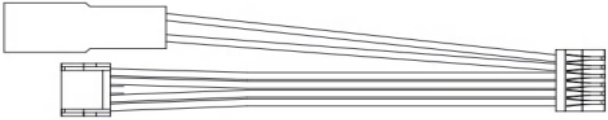

E) 使用地点应具有防御雨、雪、风、沙、灰的设施。

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一、产品简介

C10是一款小型高清三轴云台,搭配H16使用,云台相机720P 25fps高清无畸变摄像头,为您展现真实视野。使用工业级三轴增稳结构,大幅降低画面抖动,使画面始终处于平稳状态。轻量化设计,重量仅61g,减轻载具负荷,可用于各种规格尺寸的载具。

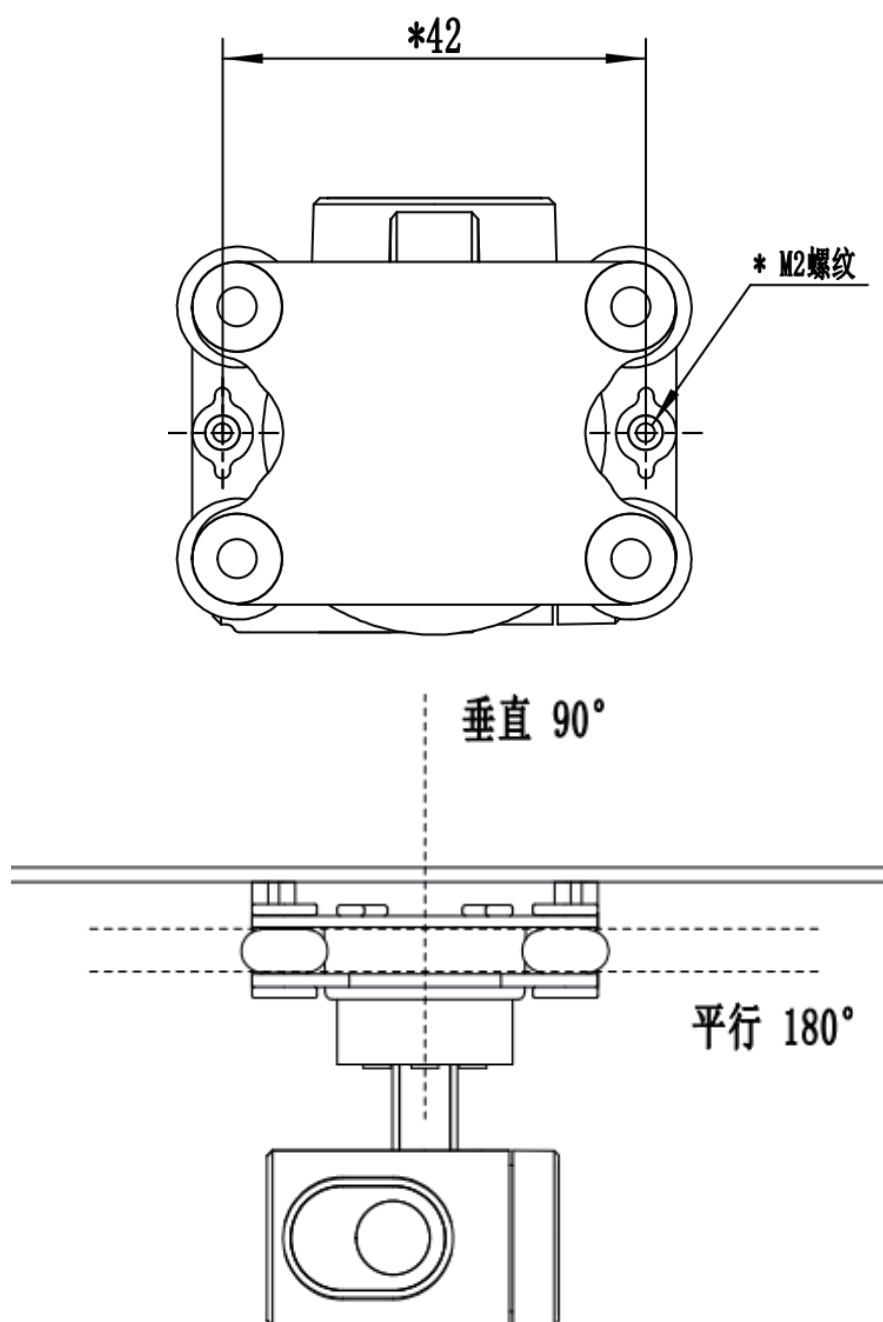
二、产品清单

<p>云台主体×1 (云台机身采用特殊的走线方式以免线材缠绕)</p>	
<p>云台固定螺丝 (M2*6) ×2 (不标配)</p>	
<p>电源及网络控制线×1</p>	
<p>Micro-SD存储卡×1 (16G内存卡出厂已插入云台内)</p>	

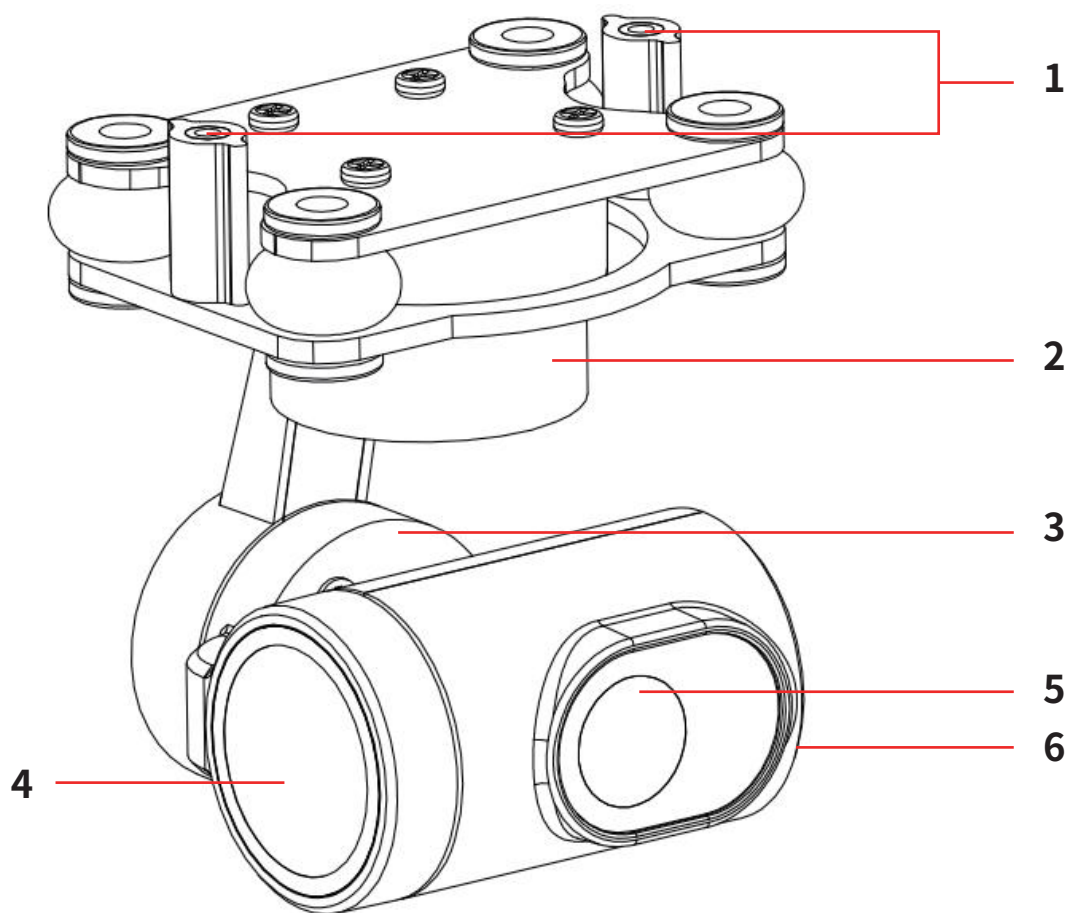
三、安装与调试

3.1 云台安装注意事项

- 1.云台不使用的時候請勿懸掛於飛行器上，長期懸掛會加速避震球變形導致避震效果下降出現果凍現象；
- 2.云台安裝時掛載杆、懸掛鉤及避震板之間必須保持相互間的絕對垂直與平行，不正確的安裝將引起避震球變形導致避震效果下降和無法自檢，見下圖。
- 3.云台出廠已調試好，連接H16時可以直接使用。
- 4.以下為云台安裝示意圖：

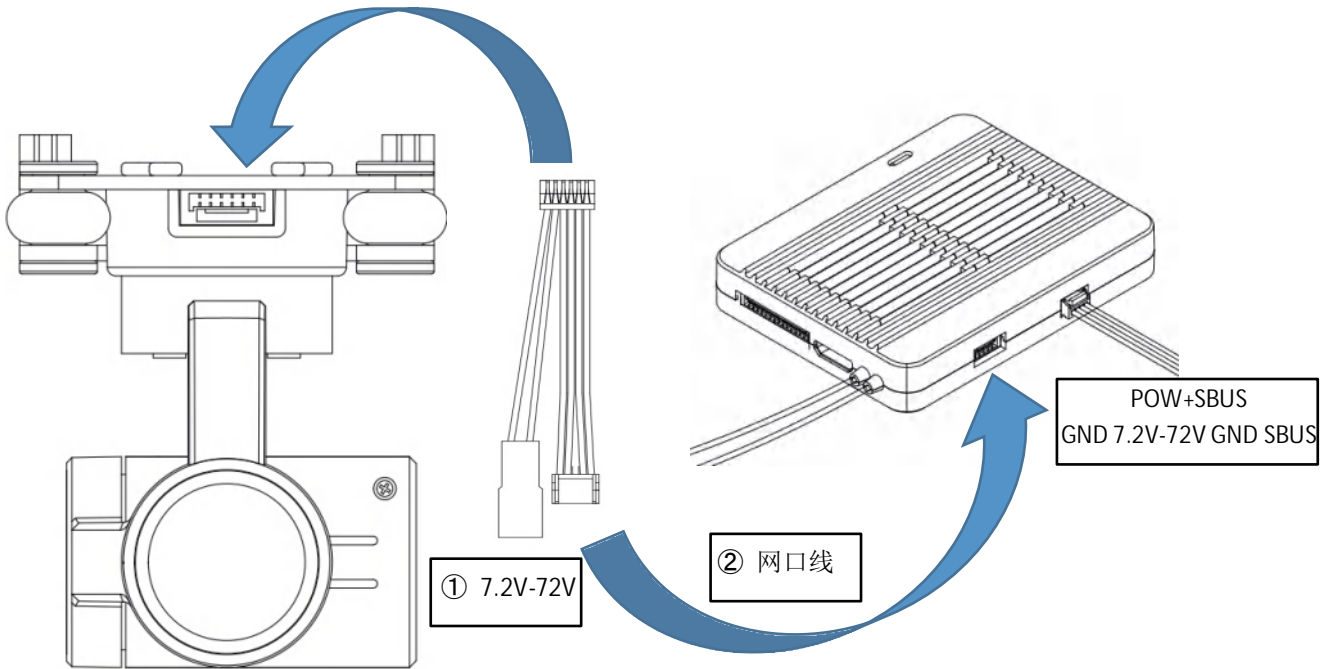


3.2 云台主体结构说明



序号	对应部位
1	固定孔(带螺纹) M2*6
2	指向轴电机
3	横滚轴电机
4	俯仰轴电机
5	镜头
6	内存卡槽

3.3 云台线路连接图及说明



<p>①电源线 (长度50cm)</p>	<p>红色JST-2P公头, 供电电源:7.2V-72V (直流电源或者锂电池) 与H16接收机POW供电电压范围相同。</p>	
<p>②网口线 (信号传输 长度50cm)</p>	<p>网络IP信号</p>	<p>RX-:网络IP信号 RX+:网络IP信号 TX-:网络IP信号 TX+:网络IP信号</p>
<p>视频传输</p>	<p>网络IP高清视频输出 RTSP码流rtsp://192.168.144.108:554/stream=0</p>	
<p>存储卡</p>	<p>云台相机目前可支持最高容量为64 GB的金士顿Micro SD卡。由于云台相机要求快速读写720P视频数据, 请使用标配的闪迪16G内存卡或者另购金士顿32G Class 10规格的Micro SD卡, 以保证视频正常录制。 注:请勿在录影过程中拔出Micro SD卡, 否则拍摄过程中得到的影像有可能会丢失。</p>	

四、云台功能的使用

H16遥控器安装云台FPV软件,并打开。软件地址:



<http://file.skydroid.xin/SkydroidCameraFPV.apk>

1. 云台自检

云台吊装安装固定好后,供电,云台会进入上下,左右自检,等待自检完成。



2. 录像、拍照

检查云台是否插入了内存卡,如无法识别内存卡,APP右下角会提示No TFCard。

2.1 单击①录像键,云台开始录制视频,录像图标变成红色,RECORD...(表示正在录制)再次单击录像键停止录像,SAVING...(文字消失后表示存储完毕)。

2.2 单击②拍照键,云台开始拍照,SAVING...(文字消失后表示存储完毕)。

3. 云台悬浮窗,单击图中③悬浮窗,界面进入悬浮状态。

4. ④调参设置

4.1 其他参数。可设置云台画面翻转,显示当前云台的版本号、帧率、GOP、码率(不可更改)。

4.2 云台控制。打开虚拟摇杆,可以控制云台上下左右。

右侧模式键可控制[一键仰头],[一键回中],[一键向下]模式。

4.3 云台校准。可设置水平校准,垂直校准,云台微调。**注意,云台出厂已校准完成不需要校准。随意校准会导致云台无法正常工作!**

4.4 工作模式。吊装模式(出厂默认)此时云台不可倒装。倒装模式:可设置云台倒装工作。点击倒装模式,云台会进入倒装模式,将云台倒放,选择4.1其他设置,选择翻转打勾,确认。倒装后此时不可吊装,如要切回吊装模式安装,需要点击吊装模式,再把云台吊装,选择4.1其他设置,选择翻转打勾,确认。

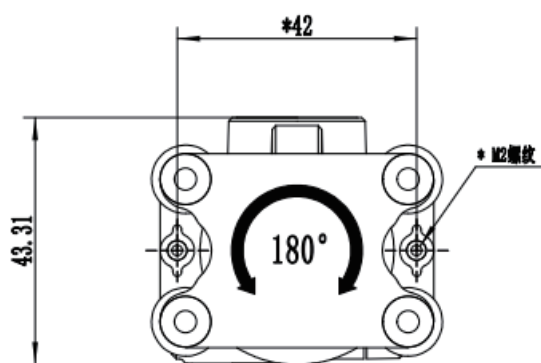
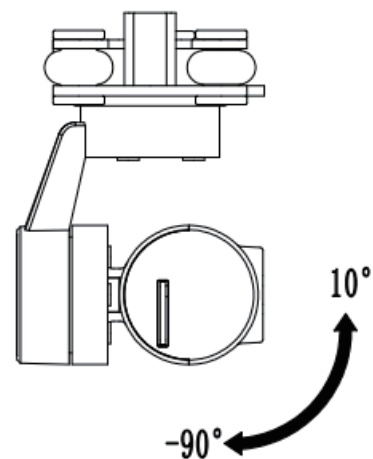
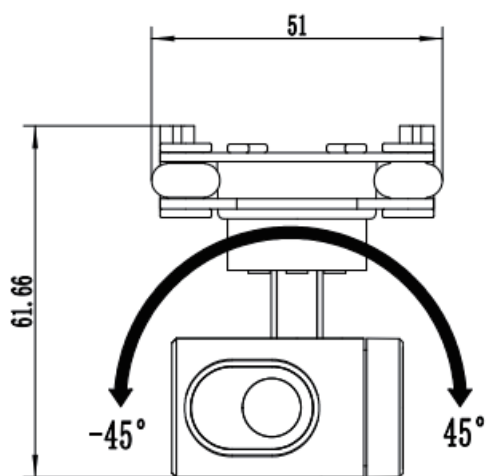
5.单击⑤十字瞄准,画面显示十字准星。

6.单击⑥辅助线,画面显示辅助线。

五、产品参数

产品参数	
产品名称	C10
输入电源	7.2V~72V直流
工作电流	210mA
工作环境温度	-10°C~+60°C
重量	61g
外形尺寸(长宽高)	51mm*43.3mm*61.7mm
俯仰角度	-90°~+10°
指向轴角度	-90°~+90°
横滚轴角度	45°
像素	有效像素:200W
镜头规格	1/2.7 sensor EFL=2.4mm
输出方式	RTSP码流H264
图传分辨率	720P
视频录像存储分辨率	720P
视频存储格式	H264 (可使用PotPlayer播放器或者其他支持H264格式的播放器播放)
照片存储分辨率	720P
照片存储格式	JPEG
工作模式	吊装模式(出厂默认)
	倒装模式(可自行设置)
一键回中	支持
一键向下	支持
一键仰头	支持
支持存储卡类型	目前只支持标配的闪迪16G内存卡与金士顿32G Class 10规格的Micro SD卡
支持文件系统	FAT32

六、云台尺寸, 角度标注



因版本演进及客户需求变更,相应命令及控制会有所变更. 请联系云卓科技有限公司, 来获取最新资讯及技术支持.因产品更新升级,尺寸重量等参数可能会有变化, 敬请谅解.

温馨提示:使用前请仔细阅读操作说明书!



微信公众号

泉州云卓科技全国服务热线
400-6996-520

产品名称:C10

制造商:泉州云卓科技有限公司

地址:福建省泉州市高新产业园区海西育成基地A幢2楼

邮箱:sales01@skydroid.xin

www.skydroid.xin

Skydroid C10 User Manual

V1.0



Small HD 3 Axis Gimbal

Skydroid Co., Ltd

Suggestion: When you read this User Manual, you should read and operate at the same time. When reading these instructions, if you encounter difficulties, please refer to this user manual or call our after-sales service (400-6996-520) or visit our official QQ chat group: 318480806 to view the relevant questions and answers.

After sales service terms

1. This clause is only applicable to the products produced by Skydroid, and the products sold by Skydroid authorized dealers are also applicable to this clause.
 2. As of the date of purchase, if the product of our company is verified by our technicians as a quality problem caused by non-human factors within one week, Skydroid shall afford the shipping fee for the repaired product. If the Skydroid product is verified as a quality problem by our technicians within one week and one year after purchase, the user and Skydroid shall afford the shipping fee for sending the repaired product respectively.
 3. Purchase voucher and warranty card or on-line transaction record shall be provided when repairing.
 4. Within 7 days from the date of purchase, Skydroid products have quality problems that are not caused by human activities under normal use, and the appearance is not damaged. With the warranty card and purchase proof, the users can negotiate to replace products of the same model for free from our local dealers; When receiving the replacement product, the dealer is kindly requested to inform Skydroid of the replacement at the first time.
 5. Skydroid will provide lifelong after-sales service for Skydroid products. If the quality problem is caused by non-human factors, it will be guaranteed free of charge within one year; The user shall pay the round-trip shipping and maintenance fees for man-made damage, modification, dismantling and exceeding the one-year free warranty period from the date of purchase.
 6. To ensure your rights and interests are protected and that you can be served in a timely and effective manner, please complete the warranty card and ask for the purchase voucher when purchasing Skydroid products. Users shall provide warranty card and purchase certificate to enjoy the after-sales service terms.
 7. The repaired products will be sent back to the customer within 15 working days after receiving by Skydroid, and the repair report will be enclosed.
 8. The above after-sales service terms are limited to Skydroid products sold in Chinese Mainland. Send the after-sales problems of Hong Kong, Macao, Taiwan and overseas customers to the email: sales01@skydroid.xin
- The specific after-sales rules depend on the situations.

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Warnings and Disclaimers

The content mentioned in this article relates to your safety, legal rights and responsibilities. Before using this product, please read this manual carefully to ensure that the product has been correctly set. Failure to observe and operate in accordance with the instructions and warnings in this document may cause harm to you and the people around you, and damage this product or other surrounding objects. The right of final interpretation of this document and all relevant documents belongs to Skydroid. It is subject to update without notice. Please visit: <http://www.skydroid.xin/> Official website to obtain the latest product information.

C10 gimbal has been commissioned according to the camera and lens it carries before deliver out the factory. Do not adjust the gimbal or change its mechanical mechanism, nor add other external equipment to the C10. The structure of the C10 is precise. Do not disassemble the C10 by yourself, or it will cause the gimbal working abnormally.

For the safety of you and others, please ensure that the drone is in a safe state during the gimbal commissioning and is not energized for commissioning in a flammable, explosive and children's environment. It is strongly recommended that you remove the propellers of the drone before commissioning

A) Working temperature: - 10 ° C~+60 ° C

B) Storage temperature: - 25 ° C~+60 ° C

C) Atmospheric pressure: 86kPa~106kPa

D) The place of use shall not have explosive media, the surrounding media shall not contain gases and conductive media that corrode metals and damage insulation, and shall not be filled with water vapor or have serious mold.

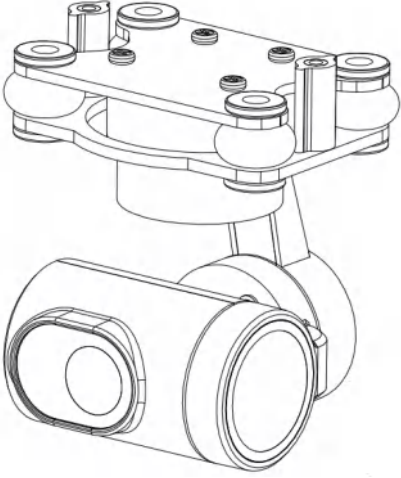

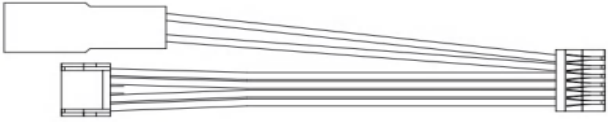

E) The place of use shall be equipped with facilities to prevent rain, snow, wind, sand and ash.

Because our company cannot control the specific use, installation, modification and improper use of users. For the direct and indirect loss or damage caused by the above, our company will not bear the corresponding loss and compensation liability. If you use, install, and assemble Skydroid products, the corresponding results will be borne by the user. Our company is not responsible for indirect or direct losses and injuries caused by the use of this product.

1.Product introduction

C10 is a small high-definition three-axis gimbal camera, which is used with H16/H16 Pro. The C10 equipped with 720P 25fps high-definition distortion-free camera shows you a true vision. The industrial three-axis stabilization structure is used to greatly reduce the picture jitter, so that the picture is always in a stable state. Lightweight design, its net weight is only 61g, reduce the load of the vehicle, and can be used for various sizes vehicles.

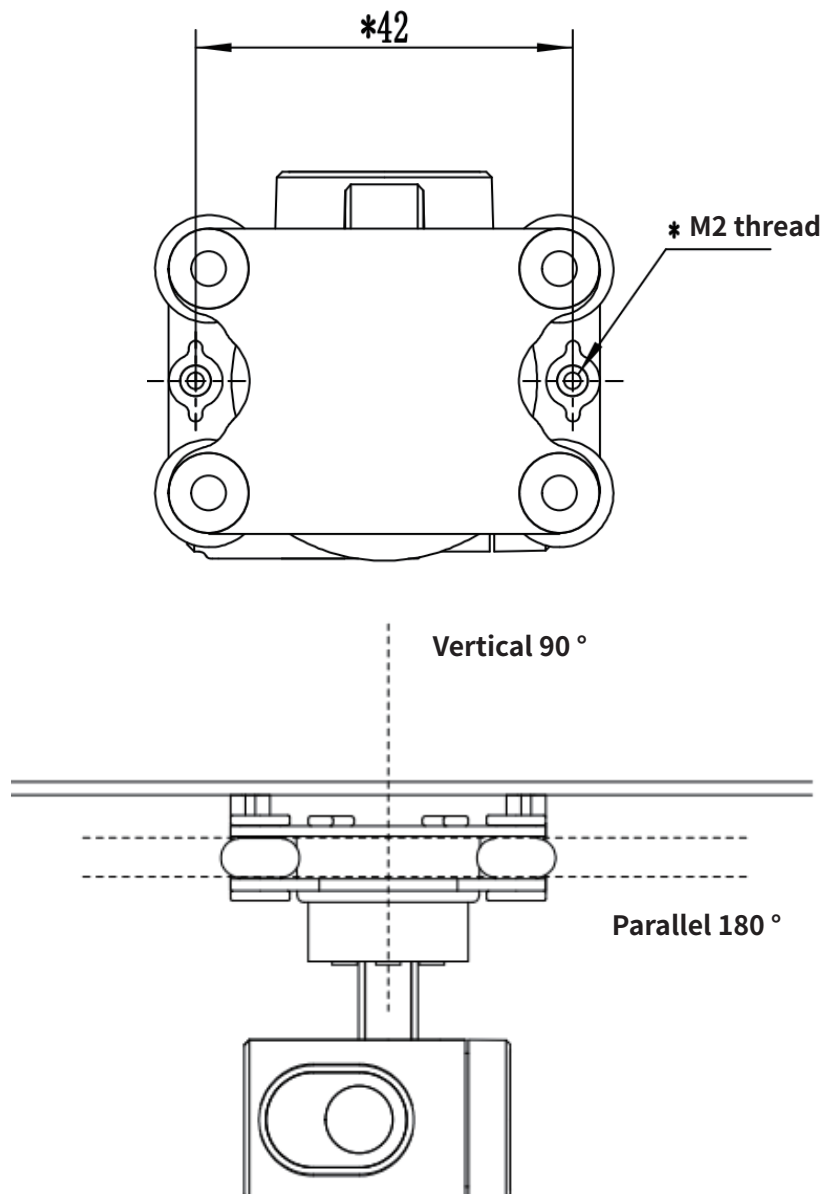
2.Product packing List

<p>C10 main body × 1 (The gimbal body adopts a special wiring method to avoid wire entanglement)</p>	
<p>Fixing screw (M2 * 6) × 2 (not standard configured)</p>	
<p>Power supply and network control cable × 1</p>	
<p>Micro SD memory card × 1 (16G memory card has been inserted into the gimbal before delivering)</p>	

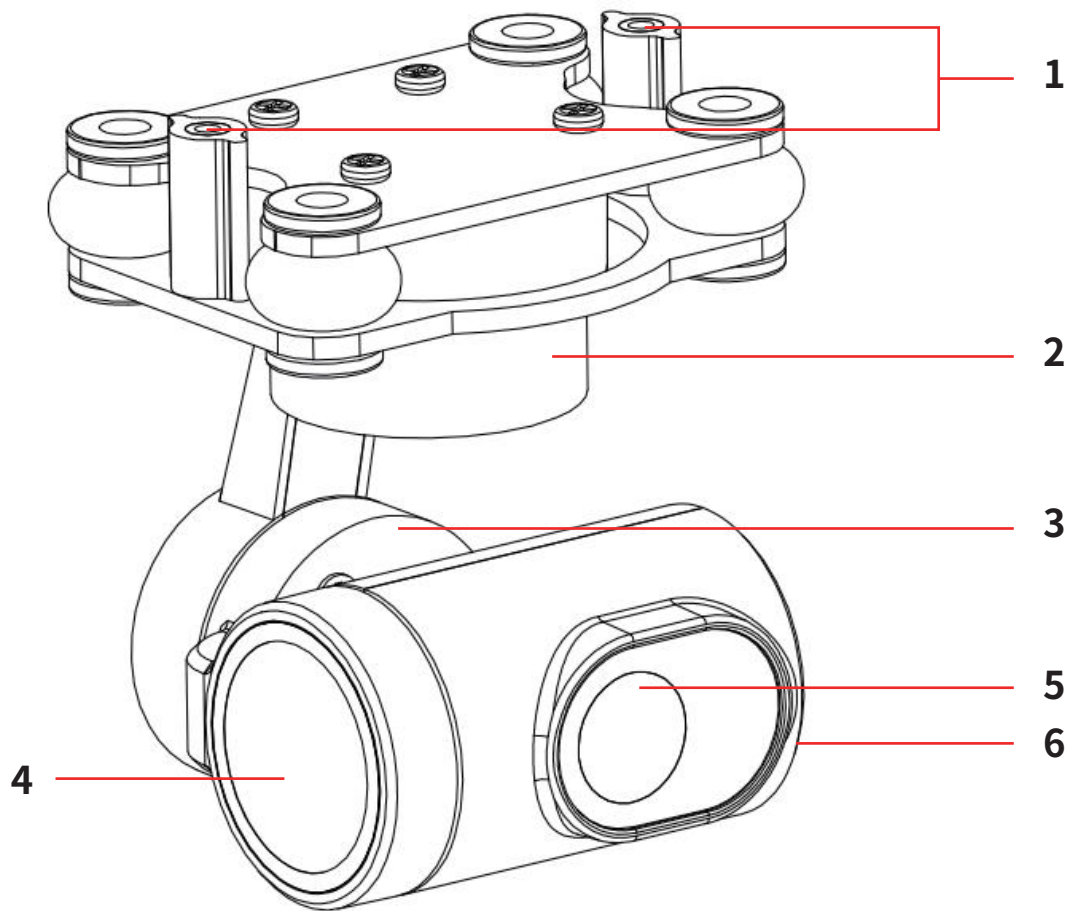
3.Installation and debugging

3.1 Precautions for C10 installation

- 1.When the C10 is not in use, please do not hang it on the drone. Long term suspension will accelerate the deformation of the shock absorber ball, resulting in the reduction of the shock absorber effect and jelly phenomenon;
- 2.When installing the gimbal, the mounting bar, suspension hook and shock absorber plate must be absolutely perpendicular and parallel to each other. Incorrect installation will cause the deformation of the shock absorber ball, which will lead to the reduction of the shock absorption effect and the failure of self inspection. Please see the below pictures.
- 3.The C10 has been commissioned in the factory and can be directly used when connecting H16/H16 Pro.
- 4.The following is the installation diagram of the C10:

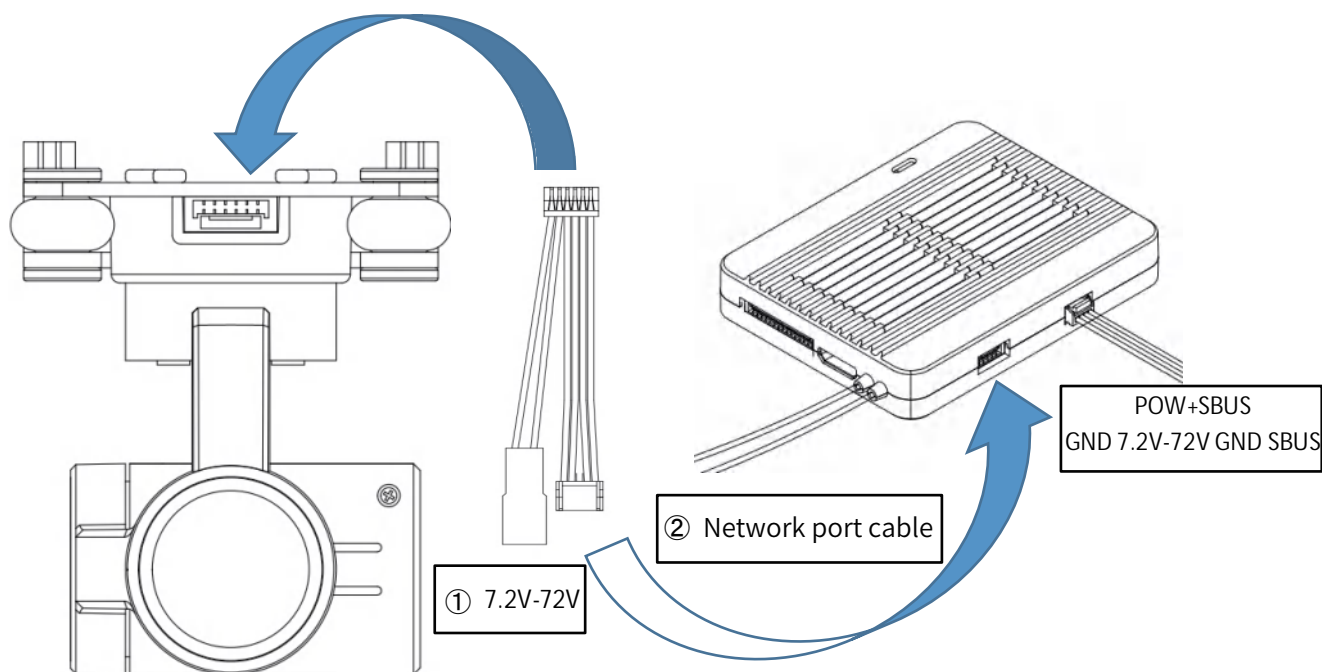


3.2 Description of main structure of. C10



No.	Corresponding parts
1	Fixing hole (with thread) M2 * 6
2	Pointing axis motor
3	Roller axis motor
4	Pitch axis motor
5	camera lens
6	Memory card slot

3.3 Cable connection diagram and description of C10



① Power cable (50cm long)	red JST-2P male plug, power supply: 7.2V~72V (DC power supply or lithium battery)	
② Network port cable (signal transmission length 50cm)	Network IP signal	RX -: network IP signal RX+: network IP signal TX -: network IP signal TX+: network IP signal
Video transmission	network IP HD video output RTSP code stream <code>rtsp://192.168.144.108:554/stream=0</code>	
The storage card	C10 can currently support a Kingston Micro SD card with a maximum capacity of 64 GB. As the C10 requires fast reading and writing of 1080P video data, please use the standard Sandisk 16G memory card or purchase a Kingston 64G Class 10 Micro SD card to ensure normal video recording. Note: Please do not unplug the Micro SD card during the recording process, otherwise the video obtained during the shooting process may be lost.	

4. Use of C10

Installed Skydroid FPV App into the H16/H16 Pro, and opened it. App downloading address is: <http://file.skydroid.xin/SkydroidCameraFPV.apk>



1. C10 self inspection

After the C10 is hoisted, installed and fixed, power is supplied, C10 will go up and down, turn left and right for self inspection, waiting for the completion of self inspection.



2. Video recording and photography

Check whether the C10 is inserted with a memory card. If the memory card is not recognized, the APP will prompt No TF card message at the lower right corner.

2.1 Click the (1) Record key, C10 starts to record video, and the recording icon turns red, RECORD... (indicating recording is in progress) Click the Record key again to stop recording, SAVING... (indicating storage is completed after the text disappears).

2.2 Click the (2) photographing button, the C10 starts to take photos, SAVING... (the storage is completed when the text disappears).

3. For C10 suspension window, click (3) suspension window icon, and the interface will enter suspension state.

4. (4) Parameter adjustment setting

4.1 Other parameters. The C10 screen can be set to flip to display the version number, frame rate, GOP and code rate (cannot be changed).

4.2 C10 tilt control. Open the virtual rocker to control the C10 up, down, left and right. The mode key on the right can control it [One key Up], [One key Back] and [One key Down] modes.

4.3 C10 tilt calibration. Horizontal calibration, vertical calibration and trim adjustment can be set. **Note: that the C10 has been calibrated from the factory and does not need to be calibrated. Random calibration will cause the gimbal to fail to work normally!**

4.4 Working mode. In the hoisting mode (factory default), the C10 cannot be inverted at this time. Upside down mode: you can set the C10 upside down operation. Click upside down mode, the C10 will enter upside down mode, please make the C10 upside down, select other settings in 4.1, select flip check, and confirm. After inversion, hoisting is not allowed at this time. If you want to switch back to the hoisting mode for installation, you need to click the hoisting mode, then hoist the C10, select other settings in 4.1, select flip check, and confirm.

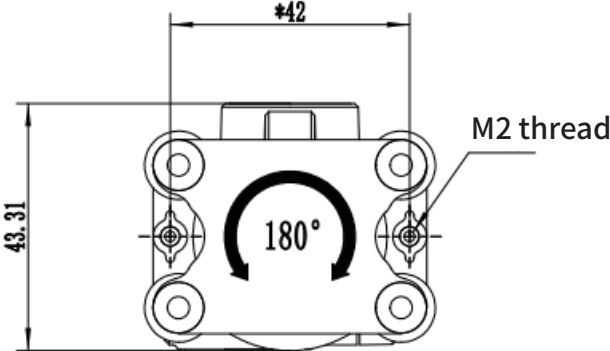
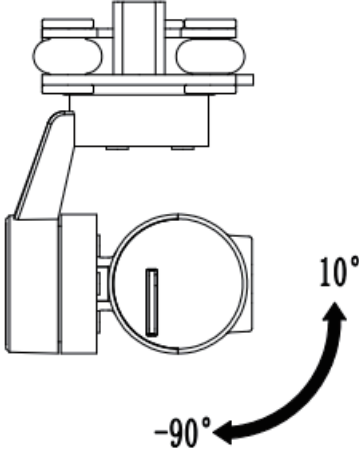
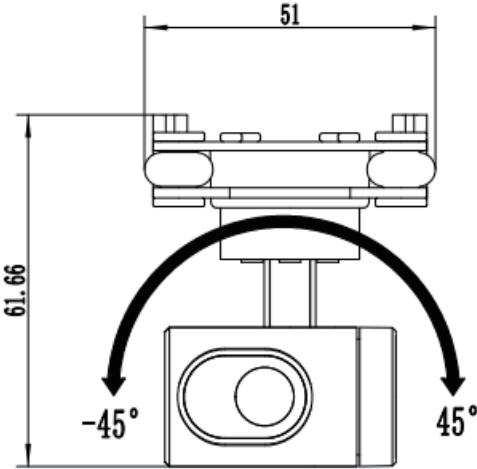
5. Click ⑤ Cross aim, and the screen will display the crosshair.

6. Click ⑥ auxiliary line to display auxiliary line.

5.Product specifications

Product specifications	
Product name	C10
Input power	7.2V~72V DC
Operating current	210mA
Working temperature	-10°C~+60°C
Weight	61g
Overall dimension (L, W, H)	51mm*43.3mm*61.7mm
Pitch angle	-90°~+10°
Pointing axis angle	-90°~+90°
Rolling angle	45°
Pixel	Effective pixel: 200W
Lens specification	1/2.7 sensor EFL=2.4mm
Output mode	RTSP code stream H264
Image transmission resolution	720P
Video recording storage resolution	720P
Video storage format	H264 (can be played with the PotPlayer player or other players supporting H264 format)
Photo storage resolution	720P
Photo storage format	JPEG
Working mode	Hoist mode (factory default)
	Upside down mode (self setting)
One click back	support
One click down	support
One button head up	support
Supported memory card types	Currently, only the standard Sandisk 16G memory card and Kingston 64G Class 10 Micro SD card are supported
Support file system	FAT32

6. Dimensions and angle dimensions of C10



Due to version evolution and customer requirements change, corresponding commands and controls will change. Please contact Skydroid for the latest information and technical support. Due to the update and upgrading of the product, parameters such as size and weight may change. Please understand.

Tips: Please read the user manual carefully before use!



WeChat public account

**Skydroid after-sales service hot line:
400-6996-520**

Product name:C10

Manufacture: Skydroid Co.,Ltd

2nd/F, Building A, Haixi Yucheng Basement, High-tech Industrial Park,
Quanzhou, Fujian,China

Email:sales01@skydroid.xin

www.skydroid.xin