

SKYDROID 云卓

SKYDROID TECHNOLOGY (FUJIAN) CO., LTD



SKYDROID C11

User Manual

V1.0

Warning

This product classifies and explains the potential hazards that may arise from improper operation in accordance with the following terms.

Caution: Failure to follow the instructions for operation may result in property damage and minor injuries.

Caution: Failure to follow the instructions for operation may result in property damage, major accidents and serious injuries.

Warning: Operate the product only after reading the entire user manual and becoming familiar with its functions. Improper operation of this product may cause serious harm to yourself or others, or lead to product damage and property loss. This product is relatively complex and requires a period of time to become familiar with before it can be used safely; in addition, basic common sense is required to operate it. Without a strong safety awareness, improper operation may cause product damage and property loss, and even serious harm to yourself or others. This product is not suitable for children. Do not use parts that are not provided or recommended by SKYDROID; you must strictly follow SKYDROID's guidelines when using the product.

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.

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.

C11 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 C11. The structure of the C11 is precise. Do not disassemble the C11 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~+55°C

B) Storage temperature: -25°C~+55°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.

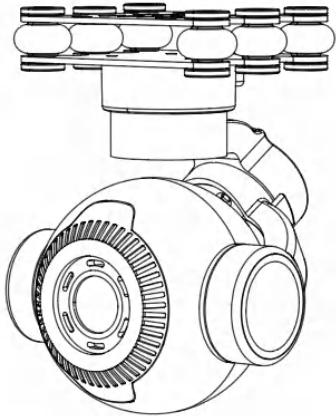
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I . Production introduction

The C11 is a compact high-definition 3-axis gimbal equipped with a next-generation imaging chip and paired with an HD distortion-free camera. It offers a wide field of view and clear image quality, with an effective pixel count of 8 million. Boasting powerful 4K video recording and photography capabilities, it captures beautiful moments as they unfold. Supporting 30x digital zoom, it brings distant scenic views up close. Adopting an industrial-grade 3-axis stabilization structure, it significantly reduces image jitter, ensuring the views remains stable at all times. This gimbal is compatible with vehicles of various specifications and sizes

II . Product Packing List

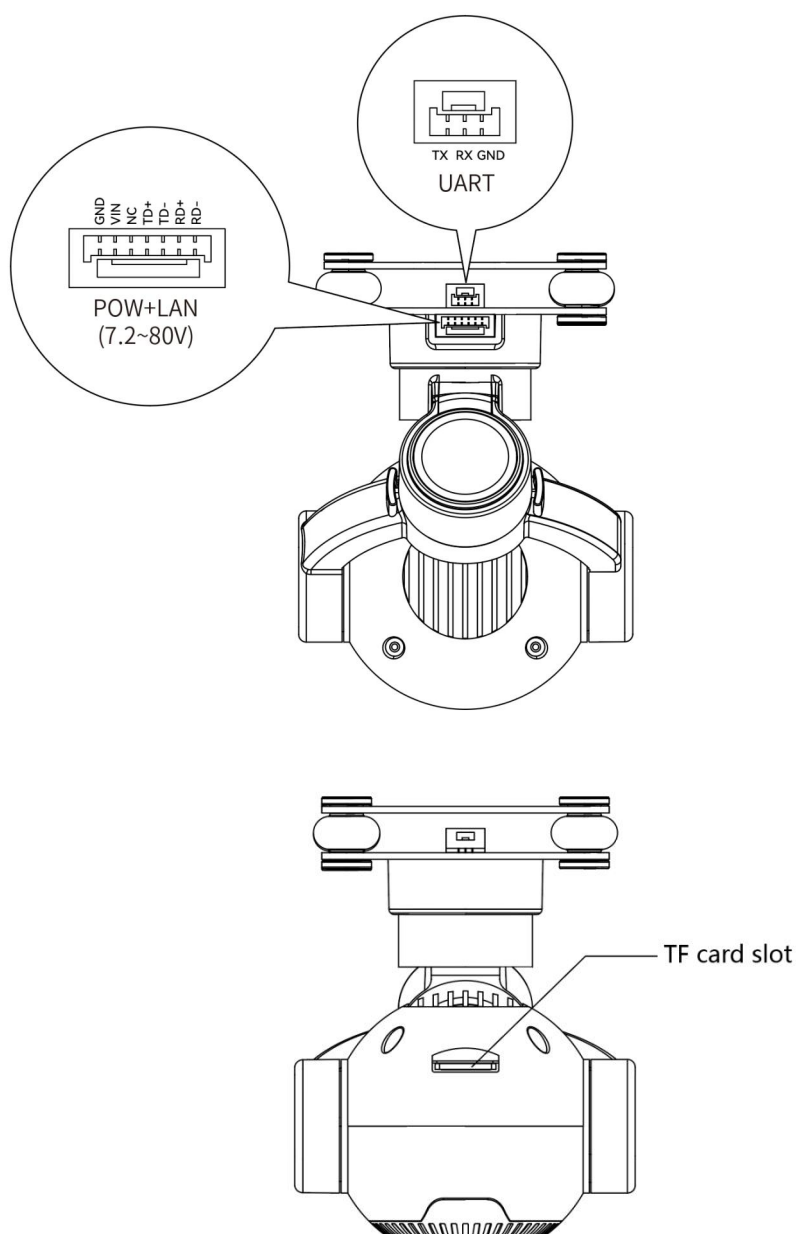
C11 gimbal*1	
Fixing screw(M2.5*6) ×4	
Ethernet power cable*1	
32G Kingston memory card*1	
Card reader*1	

Serial cable*1



III. Overview of C11

C11 ports introduction



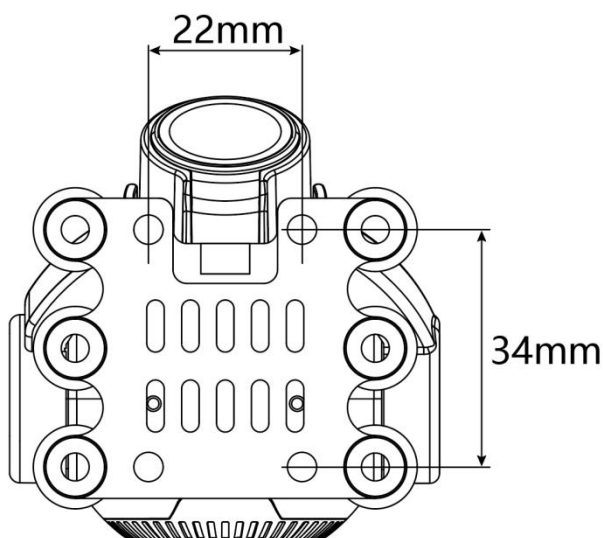
IV. Product specifications

C11 gimbal parameters	
Video output signal interface	LAN port
Control signal input interface	LAN port
Working voltage	12V~80V
Working current	12V /245mA
Working temperature	-10℃~+55℃
Weight (includes quick disassemble shock absorber plate)	106g
Size (includes quick disassemble shock absorber plate)	61.6m(L)*63.8mm(W)*84.2mm(H)
Controllable angle range	-90°~+10°(Pitch); -90°~+90°(Yaw)
Hoist mode/ Upside down mode	support
One click back/One click down/One click head up	support
Lens resolution	8MP
Gimbal Sensor Size/Specifications	1/2.8 inch
Aperture	F2.0
Focal length	3.1mm
HFOV / VFOV/DFOV	105°/58°/122°
Output Mode	RTSP Stream H265
Image Transmission Resolution	1280×720
Zoom Multiplier	30x

Card-Recorded Video Resolution	3840×2160@30fps
Video Storage Format	TS
Photo Resolution	3840×2160
Photo Storage Format	JPG
Supported Memory Card Types	Kingston 32GB
Supported File Systems	FAT32

V . Installation and debugging

1. The schematic diagram of the screw hole position and spacing is as follows:

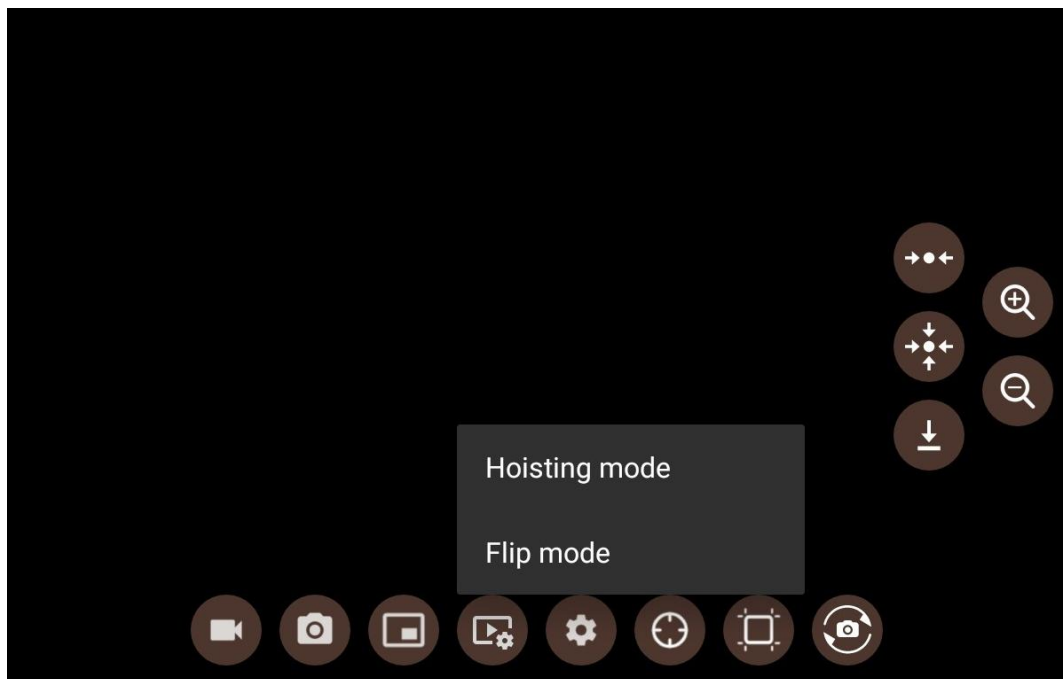


Note: The screw size used to fix the shock absorber plate is M2.5*6, with a quantity of 4 pieces.

When the gimbal is not in use, do not hang it on the drone. Long time suspension will accelerate the deformation of the shock-absorbing ball, leading to a decrease in shock-absorbing effect and jelly phenomenon.

When installing the gimbal, the shock absorption plates shall be kept absolutely perpendicular and parallel to each other. Incorrect installation will cause deformation of the shock absorption ball, resulting in a decrease in shock absorption effect and inability to self check.

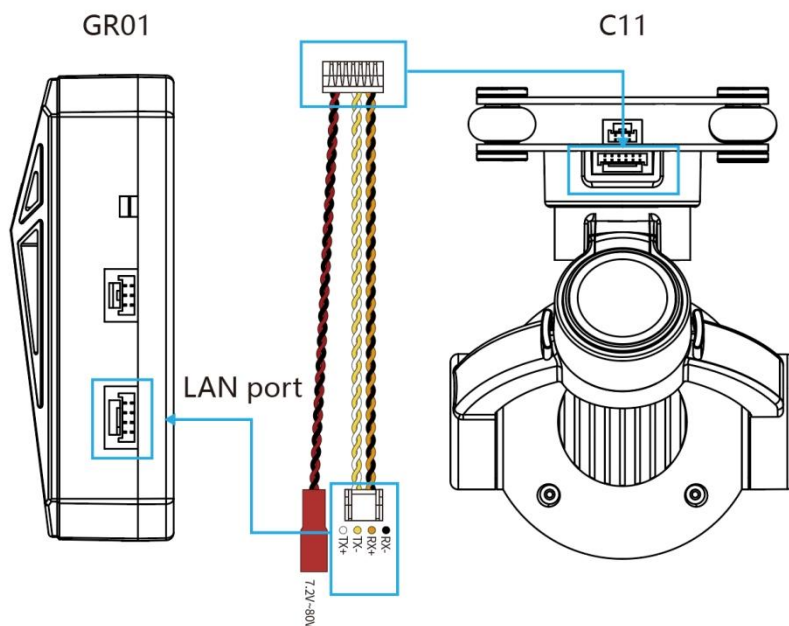
2. Gimbal working mode



The hoist mode or upside down mode can be set on the FPV App

Note: The default hoist mode is set before shipping, please do not invert and power on; Please place the gimbal correctly according to the working mode. Incorrect placement may cause damage to the gimbal motor.

3. Gimbal cable connection diagram and explanation



Power supply	Red JST-2P male port,Power supply: 7.2V-80V (DC power supply or lithium battery)	
Ethernet cable (signal transmission)	Network IP signal	RX-: Network IP signal RX+: Network IP signal TX-: Network IP signal TX+: Network IP signal
Video transmission	Video Output RTSP Stream rtsp://192.168.144.108:554/stream=0	

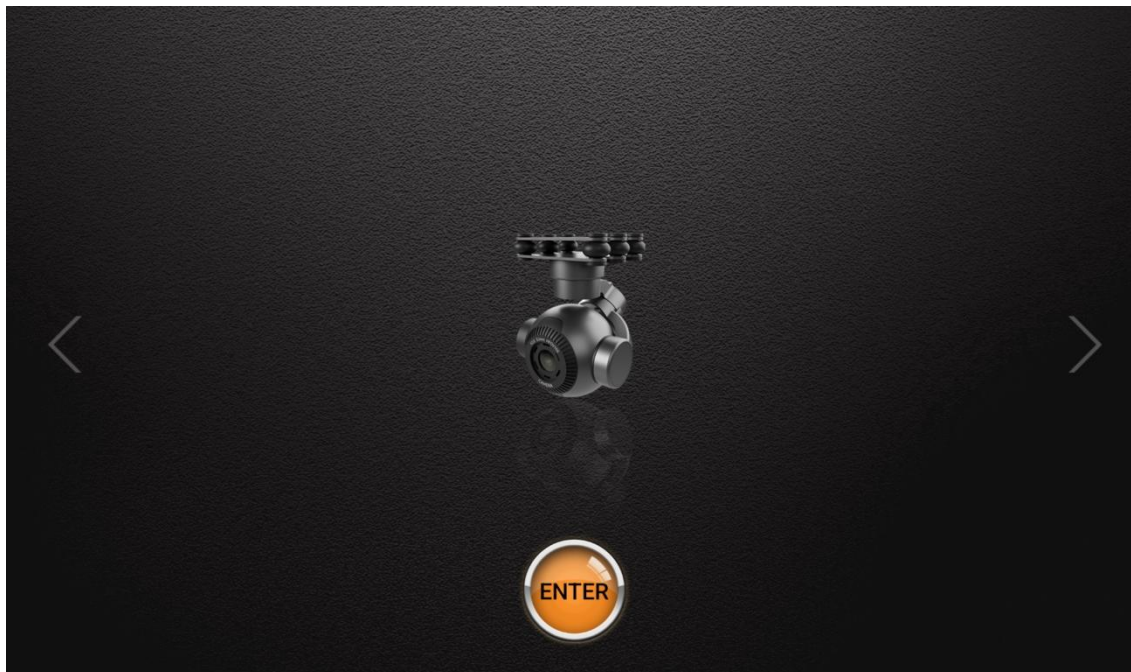
4. Use of C11

Install the latest version of gimbal FPV software on the remote control and open it.
Software download address: <http://file.skydroid.xin/SkydroidCameraFPV.apk>

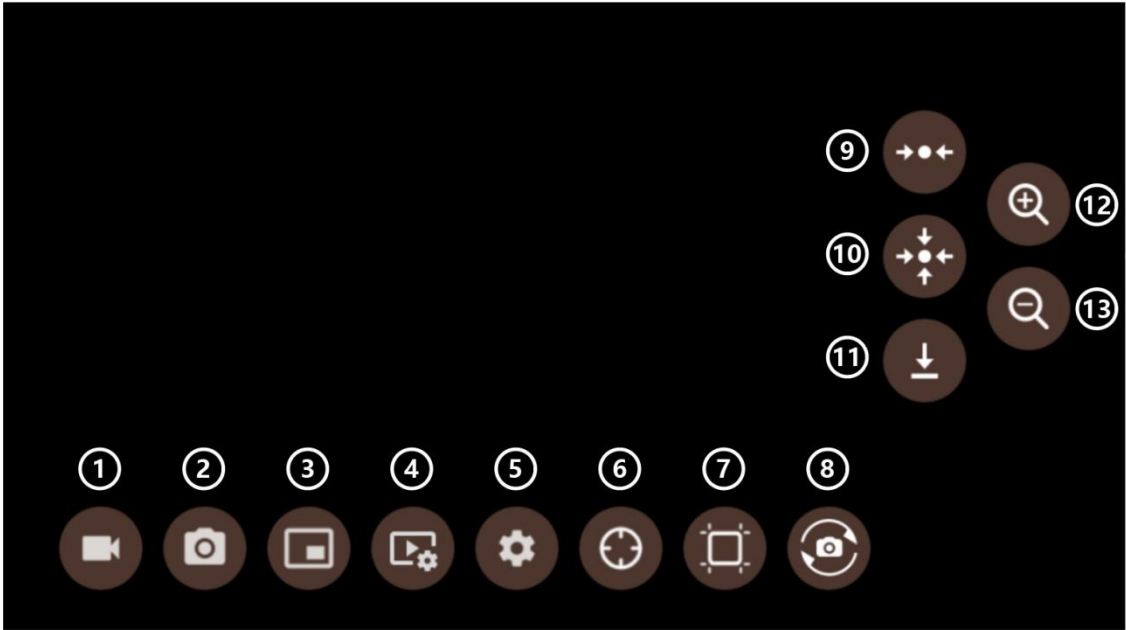
① Power on it

After the installation of the gimbal is fixed, power on it .Please wait for power on to complete.

② Open the gimbal FPV, select the C11 connection, and click to enter.



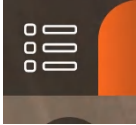
③ Introduction to the homepage of gimbal FPV



No.	Annotation	No.	Annotation
1	Recording	8	Connection Switch
2	photography	9	Yaw return to center
3	Floating Window	10	Overall return to center
4	Parameter Settings	11	One click down
5	System Settings	12	Electron Magnification+
6	Crosshair	13	Electron Magnification-
7	Reverse Lline		

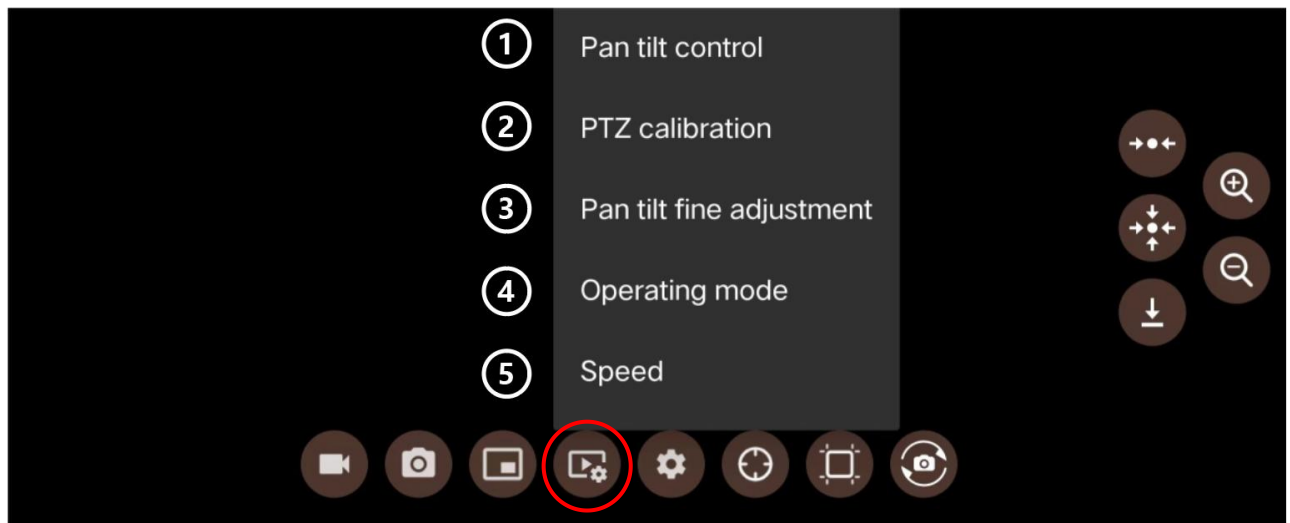
④ FFLY GCS settings

Skydroid Fly App Download Link: <https://file.skydroid.xin/SkydroidFly.apk>

APP homepage top left corner  ->  Common settings -> Open the left window and set it to C11.



5. Parameter settings for C11

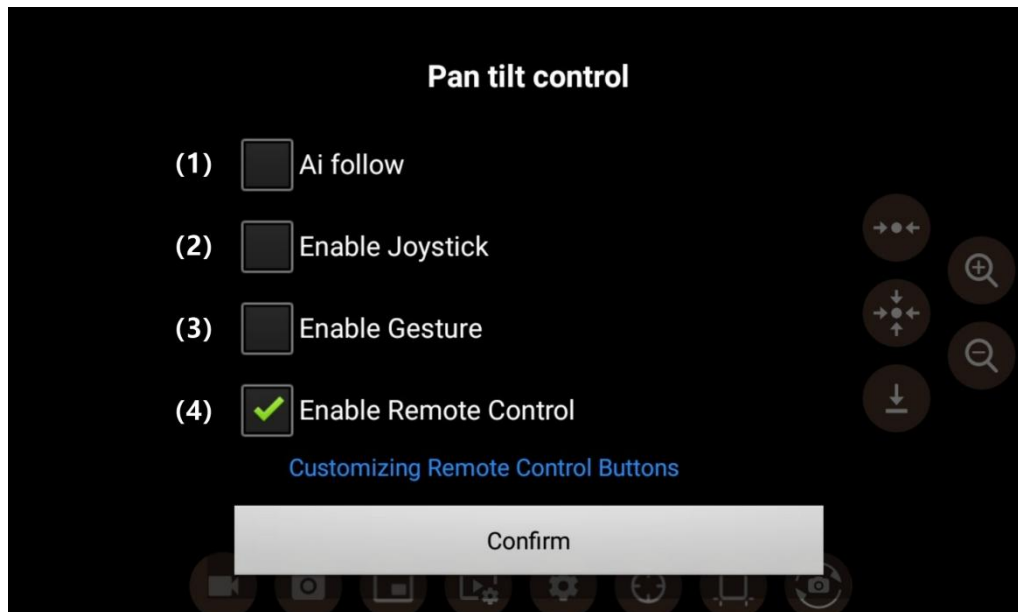


In the parameter settings, camera parameters and functions such as calibrating and upgrading the firmware can be set.

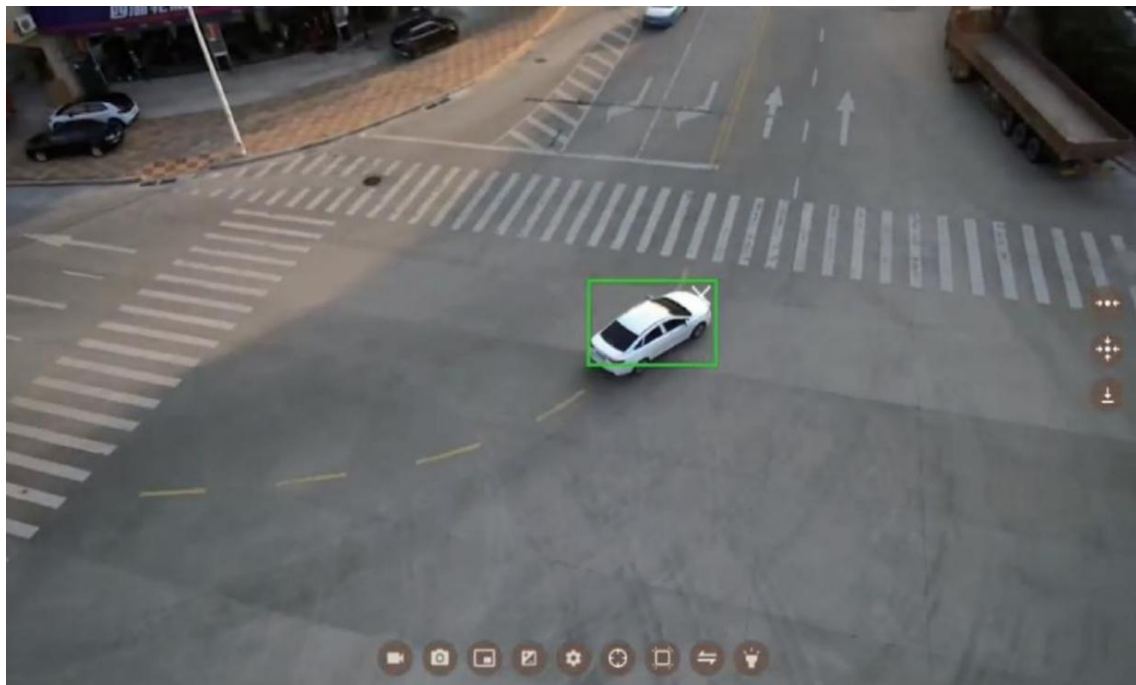
① Pan tilt control

Click on parameter settings -> gimbal control, there are AI follow and other three

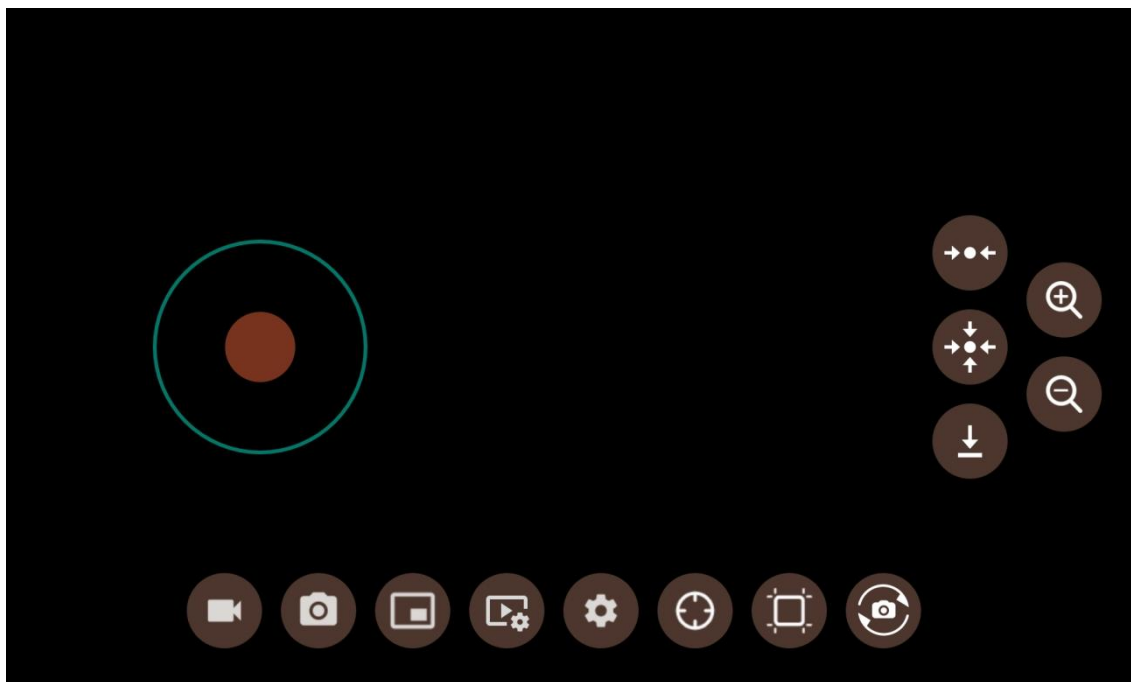
control ways to choose, which can be chosen simultaneously. (AI follow can be used simultaneously with gesture control, When AI Follow is enabled, the card recording resolution will be automatically changed to 720p, while the card recording resolution will be 4K when AI Follow is disabled.)



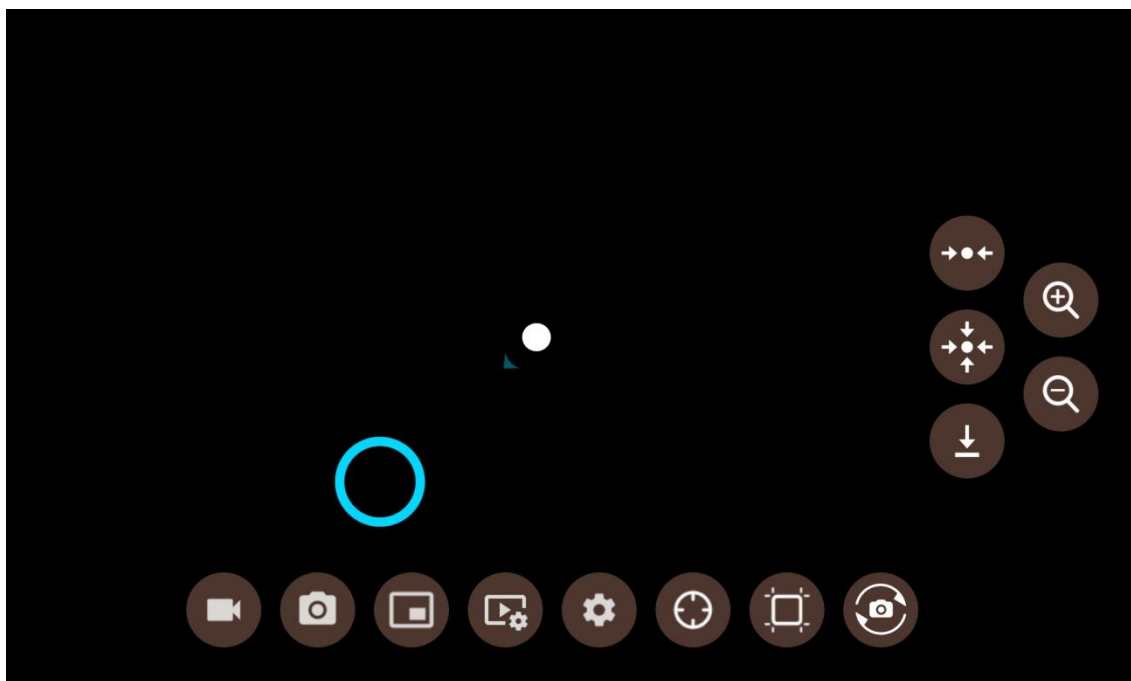
(1) C11's AI follow, after selecting this function, C11 will automatically track the target.



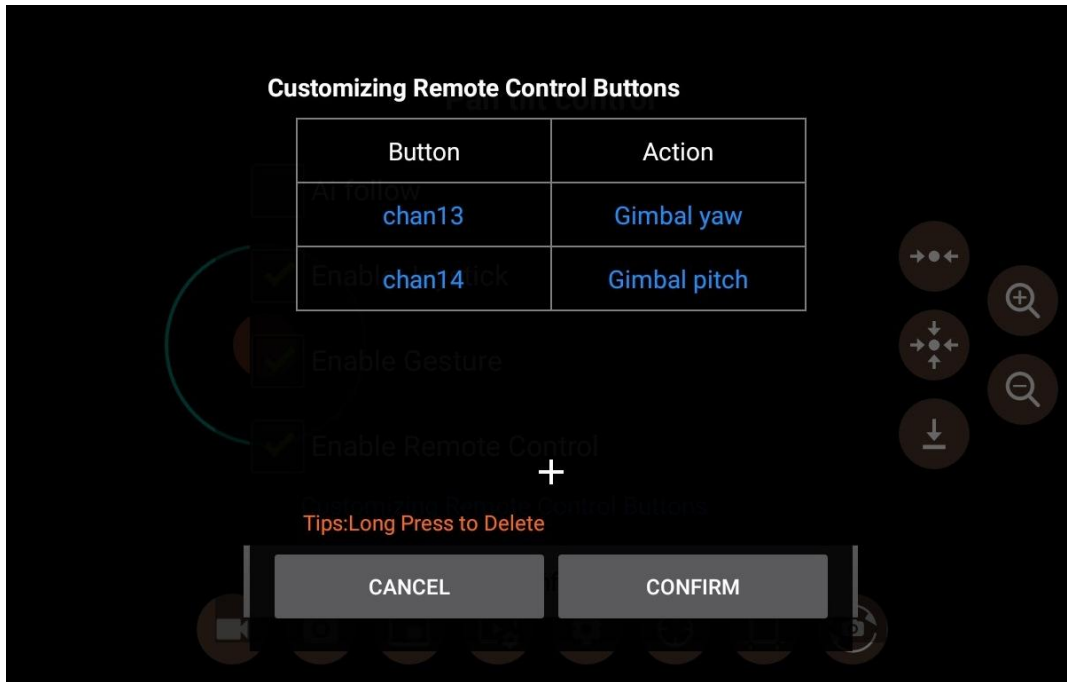
(2) Virtual joystick control, which can control C11 tilt through it, and supports one click return to center function.



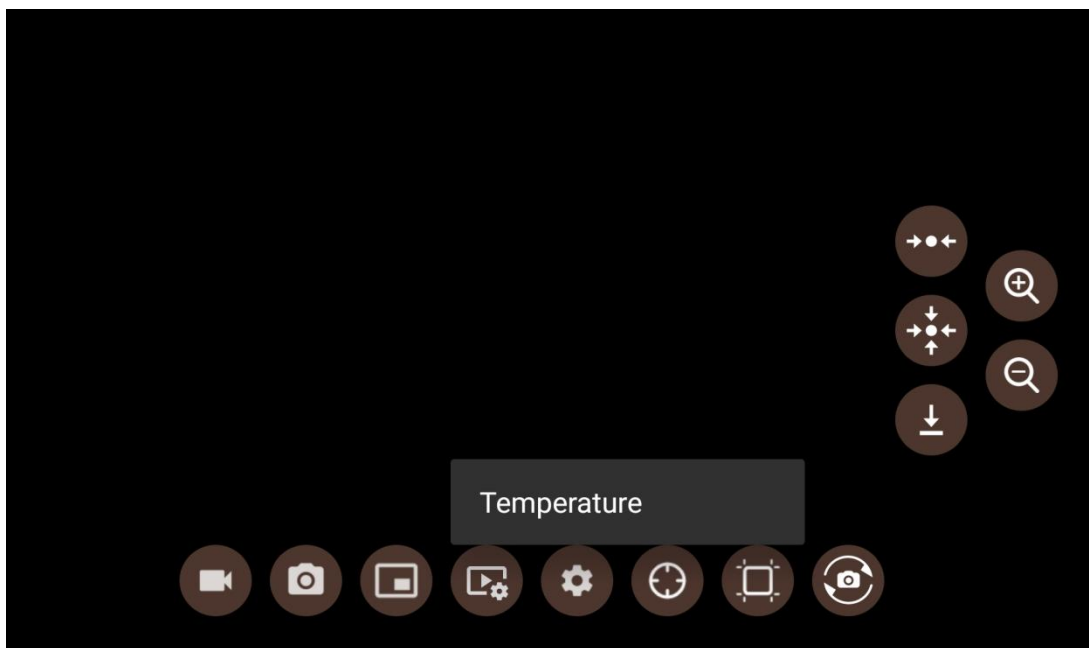
(3) Gesture control, controlling C11 tilt by sliding the screen.



(4) Use remote control channel to control it, using custom remote control channels to control C11, as well as functions such as photography and video recording. (The remote control channel can be viewed and queried through the Remote Control Assistant ->Rudder View)



② PTZ calibration



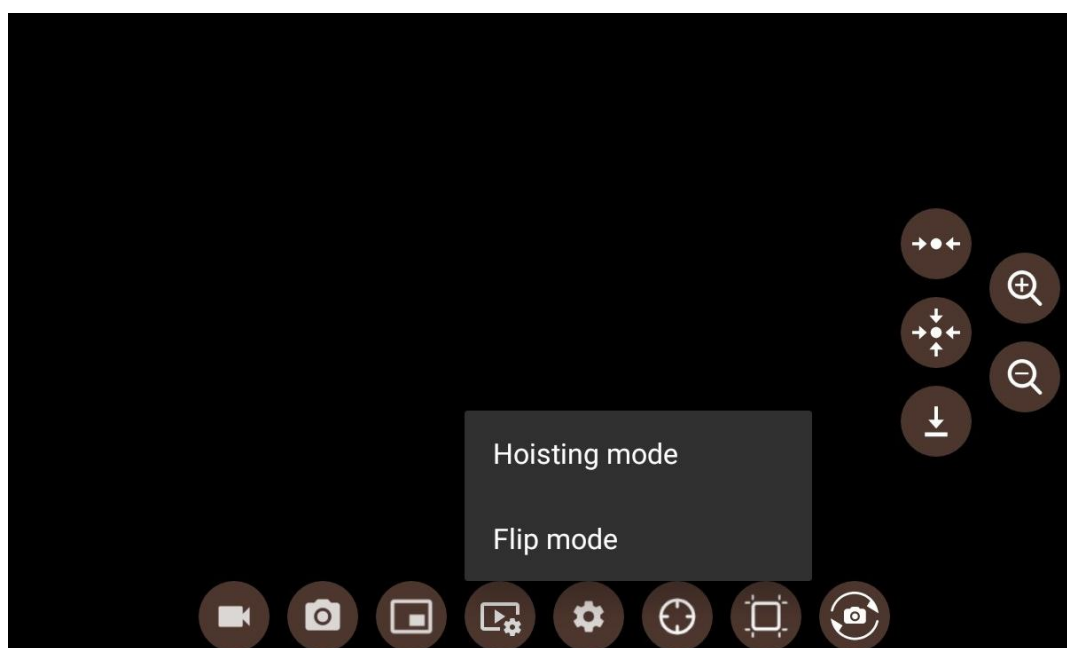
Temperature :Calibrate the temperature of the gimbal during operation to prevent it from malfunctioning due to excessive temperature difference between the ambient environment and the IMU's operating temperature.

③ Pan tilt fine adjustment

Fine-tune the horizontal axis and tilt axis of the gimbal.

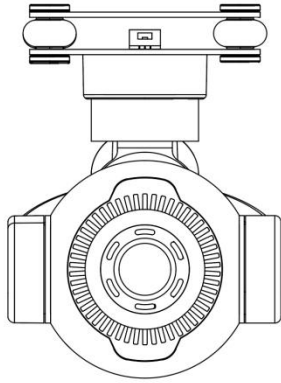
Note: The gimbal calibration has been completed at the factory. Do not click this option unless there is a problem with the gimbal. For the password, please consult SKDROID engineers for details.

④ Operating mode

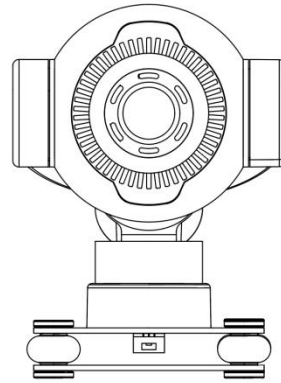


Can set the C11 in hoist mode or upside down mode

Note: Please place the gimbal correctly according to the working mode. Incorrect placement may cause damage to the gimbal motor.

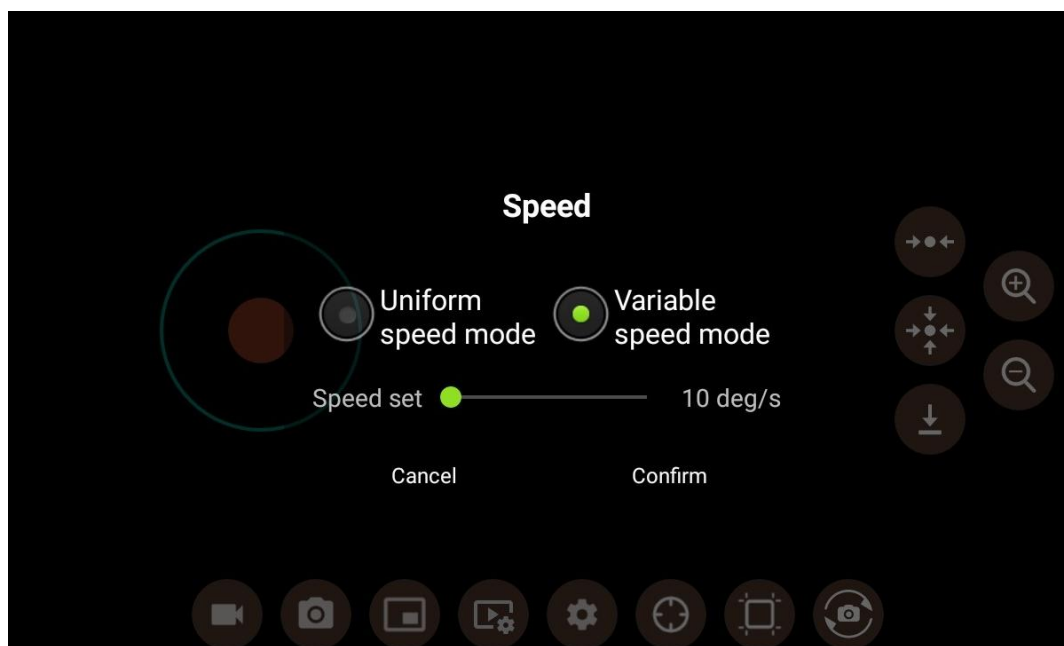


Hoisting mode
(Factory default settings)



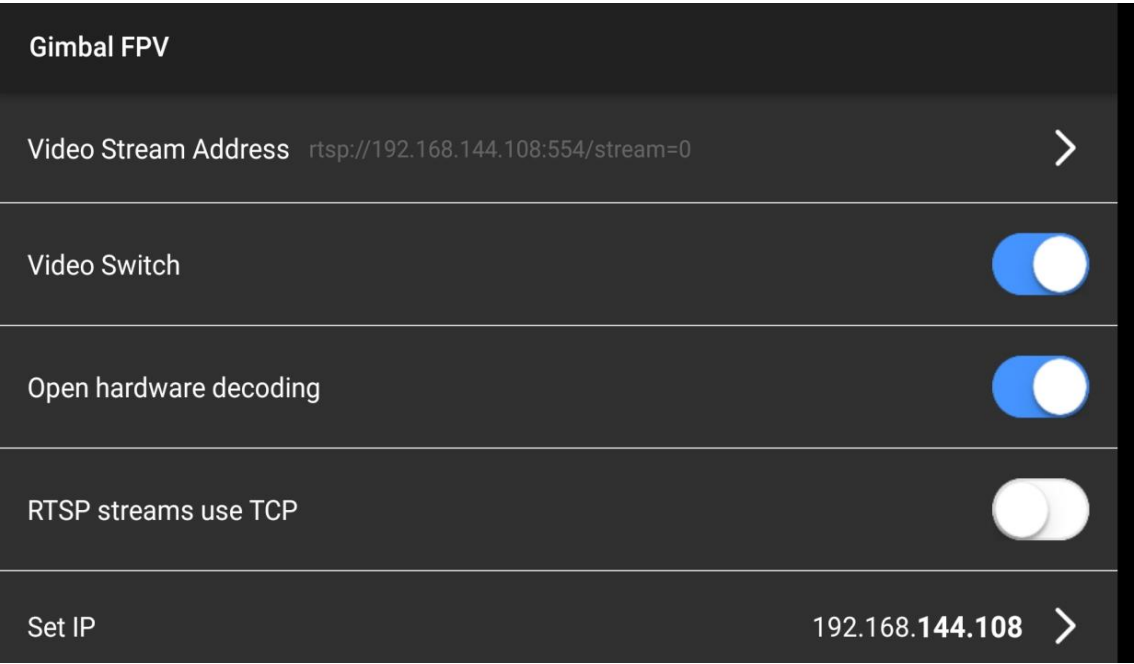
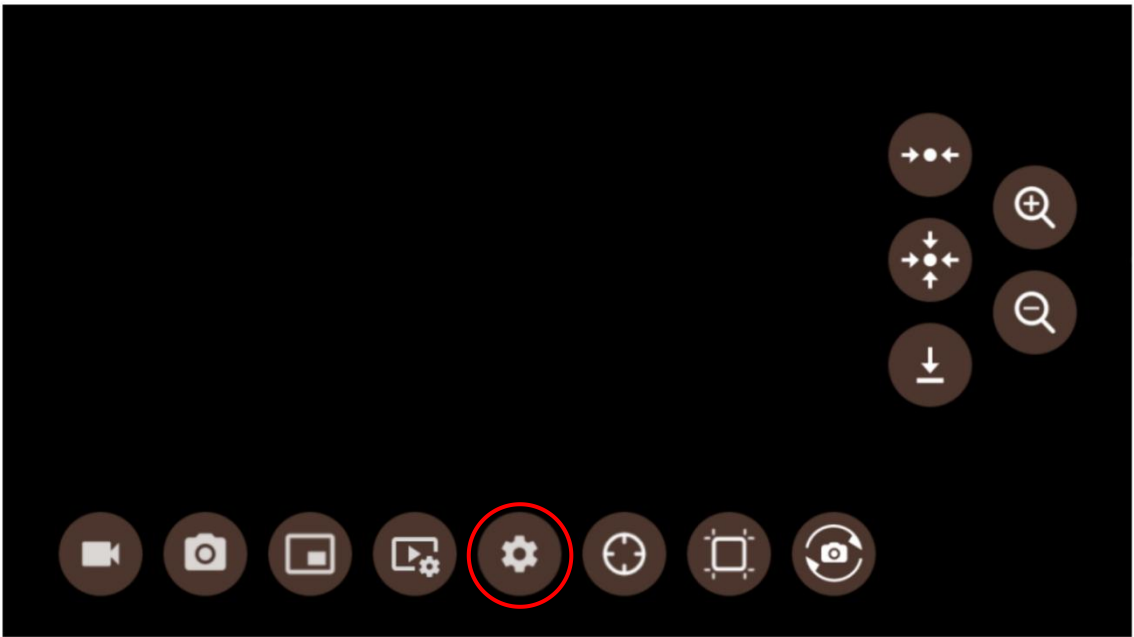
Flip mode
(The device can only be flipped after flip mode is enabled)

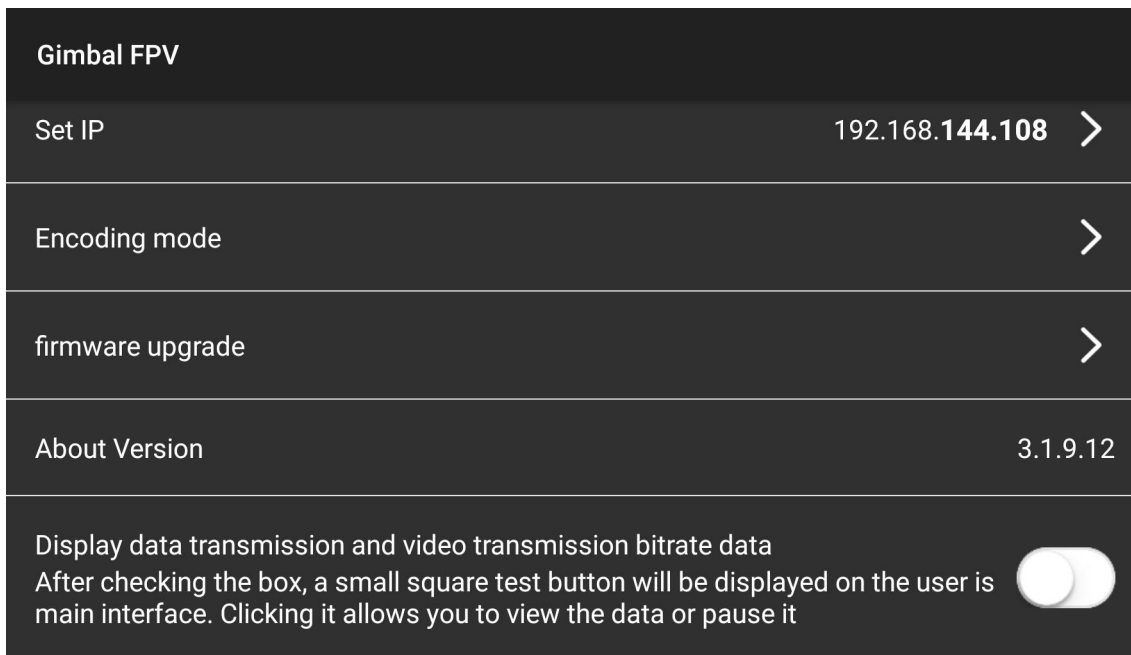
⑤ speed



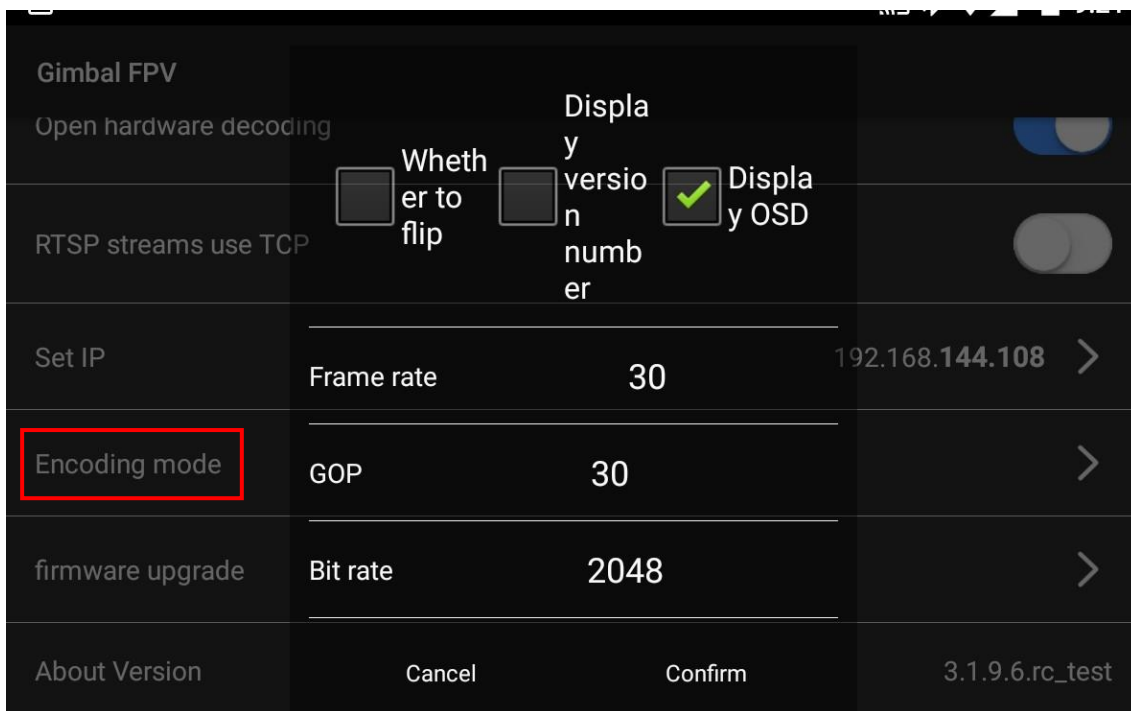
The gimbal's control speed includes uniform speed mode and variable speed mode ,
The pan-tilt rotation speed can be adjusted.

6. System Settings



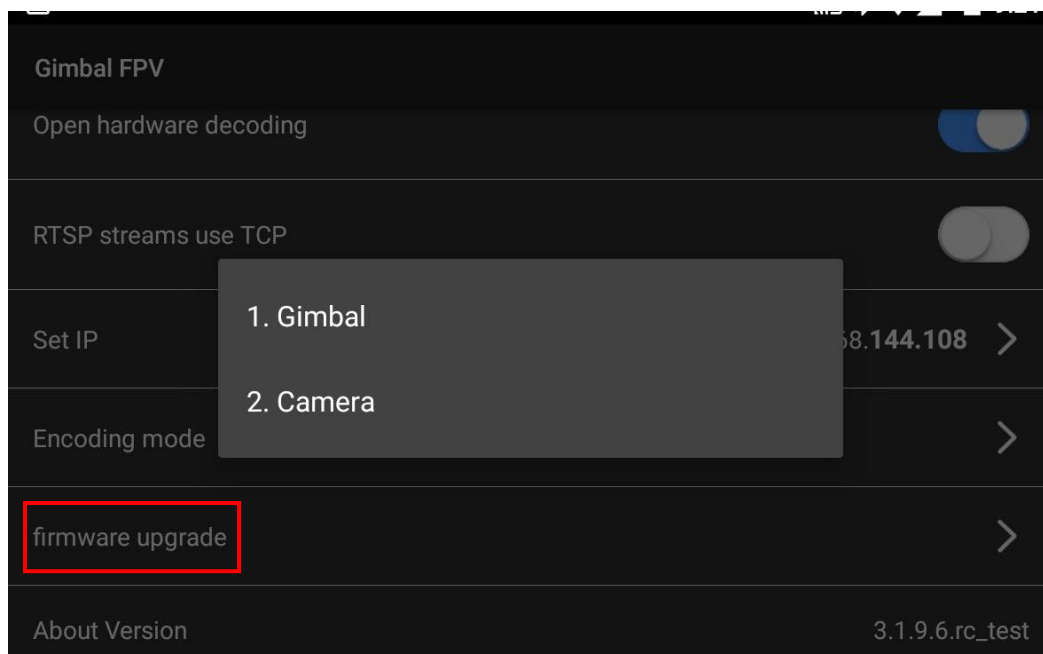


① Set Encoding Mode



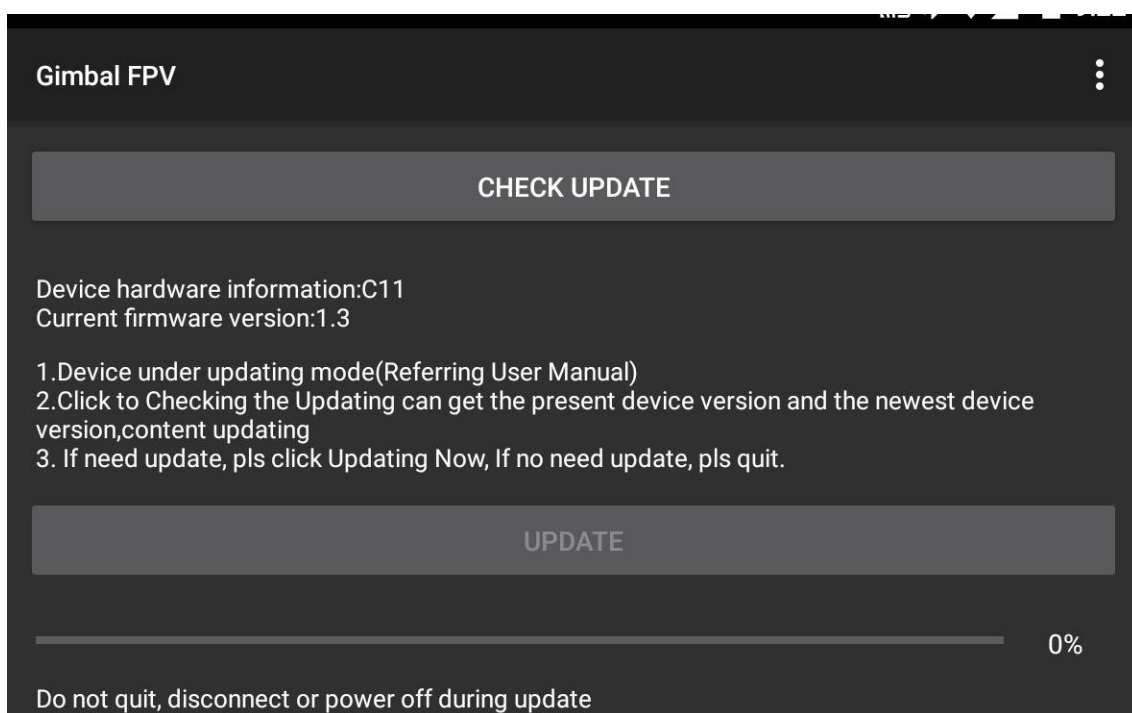
You can set the screen to flip, view the camera firmware version, and display OSD.

② Firmware Upgrade

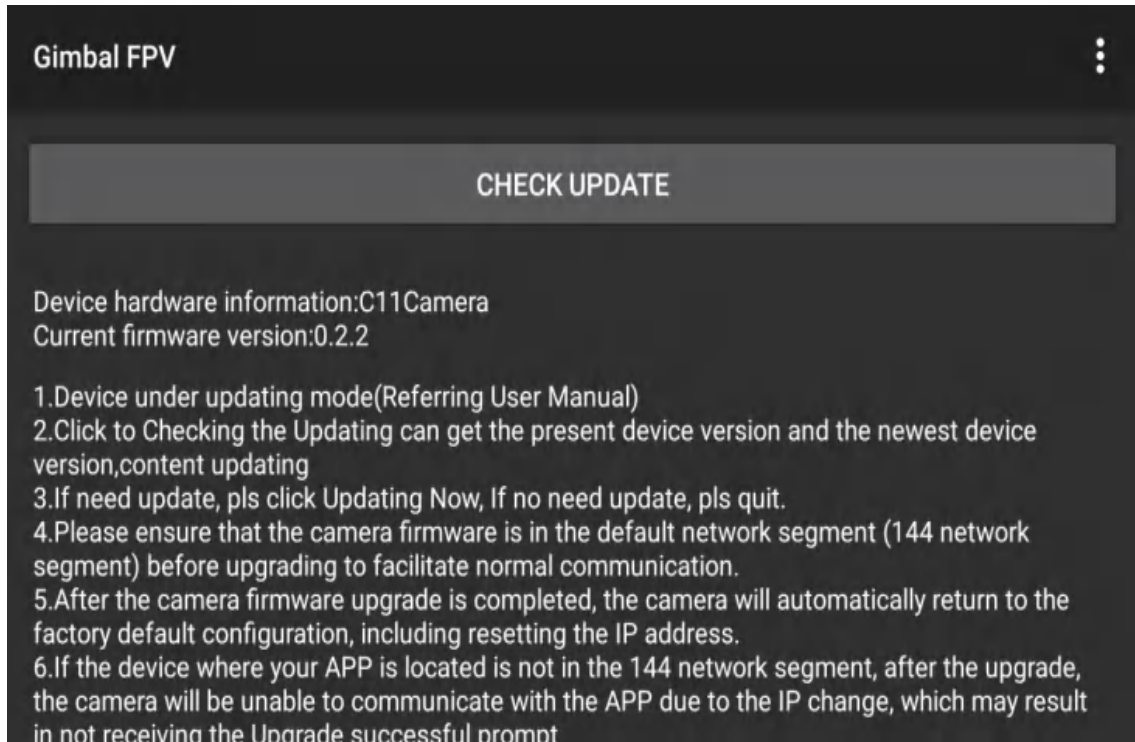


Upgradeable the C11 firmware and camera firmware. Please do not power off or exit the upgrade interface during the upgrade process. (When upgrading camera firmware, C11 shall with a TF card inserted)

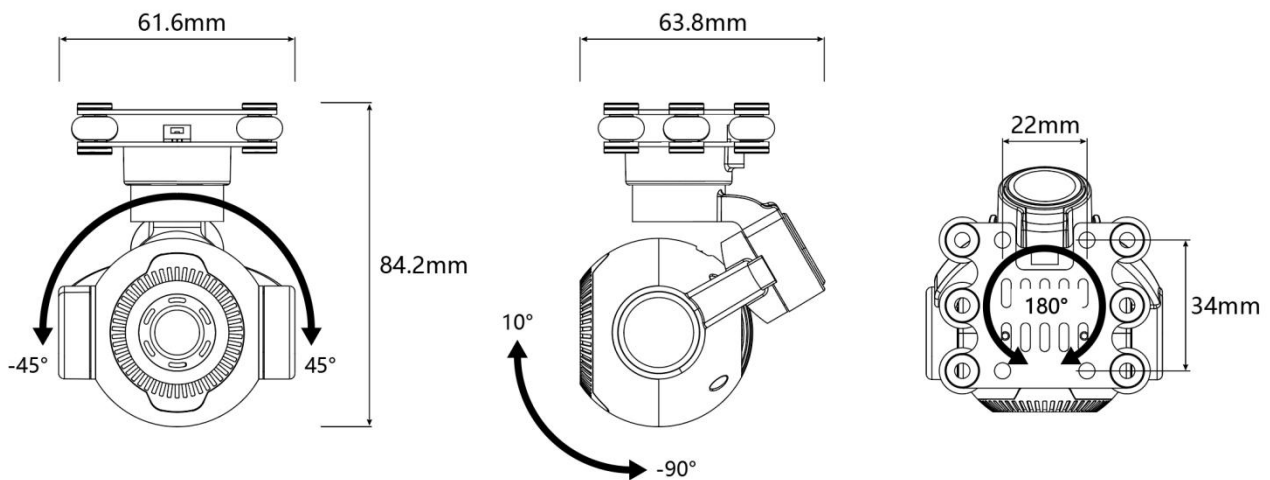
Gimbal firmware:



Camera firmware:



VI. C11 size, angle annotation



VII. Precautions

To prevent you and others from harm or damage or protect your device, please read all the following information before using your device.

1. Do not put the components directly at high-intensity radiation sources such as the sun;
2. The ideal operating environment temperature is -10 °C~55 °C;
3. Do not touch the device and cables with wet hands;
4. Do not bend or damage the connecting cables;
5. Do not use diluents to scrub your equipment;
6. Do not plug or unplug cables without disconnecting the power supply;
7. Do not connect the attached cables incorrectly to avoid damaging the equipment;
8. Please pay attention to preventing static electricity;
9. Please do not disassemble the equipment. If there is a malfunction, please contact our company for professional repair.

Due to version evolution and changes in customer requirements, corresponding commands and controls may change. Please contact Skydroid Co., Ltd. for the latest information and technical support. Due to product updates and upgrades, parameters such as size and weight may change. We apologize for any inconvenience caused by this.

This manual may not be the latest version. For the latest version, please go to the Official Website's Resource Download Center - Resource Documents to download it:
<https://skydroidglobal.com>

Instruction are subject to change without notice for further improvement, follow the official website for further improvement: <https://skydroidglobal.com>