

RDD-5 Release and Drop Device

User Manual



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—、Brief Introduction

This product is a five-hook UAV release and drop device developed based on DJI OSDK. Its advantage is that OSDK communication control does not occupy the gimbal interface, so customers can use it without purchasing a dual gimbal kit.

With the quick-detach mounting kit, a variety of devices can be quickly disassembled and replaced. The quick-detach kit is under the center of the drone gravity that maximizes the safety and stability of the drone. Carrying the H20 series camera with this drop device, which can not only observe the target in high definition and convenience, but also drop items in multiple times to achieve accurate drop, safe and stable.



The main body of the device is made of carbon fiber and aerospace aluminum materials, adopting CNC process, anodized and laser engraved surface treatment, waterproof and rust-proof. The device is connected with UAV OSDK through TYPE-C. There is a manual button on the device to control the hook on and off, can quickly complete payload mounting.

二、 Installation and Setting Operation

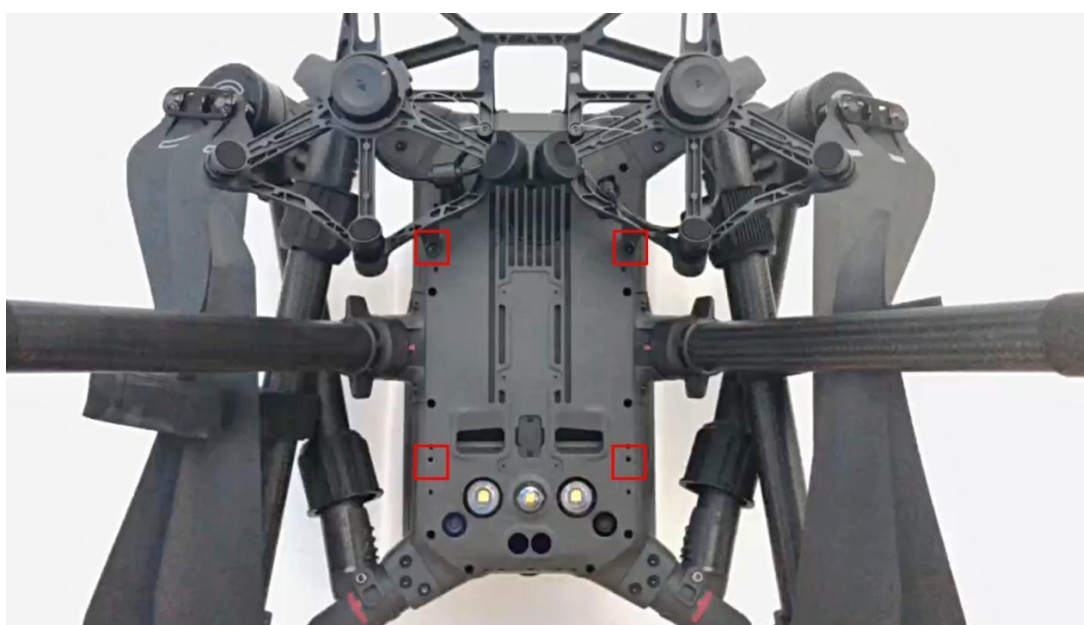
2.1 Hardware Installation

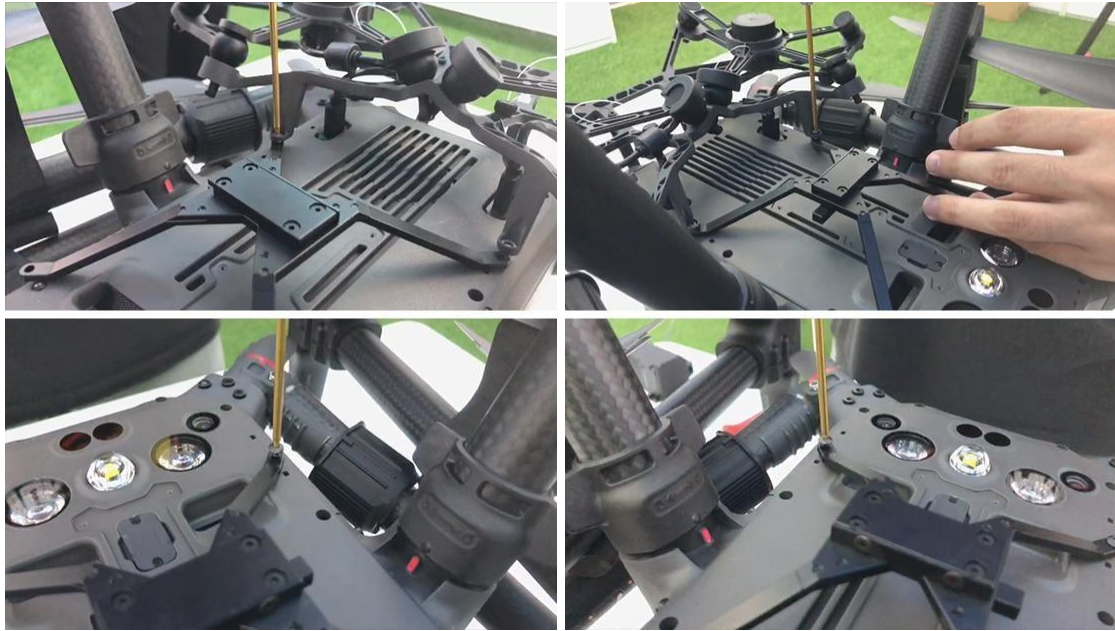
The following items need to be prepared before installing and setting.

M300RTK drone, remote controller, computer, type-c data cable, quick release mounting kit, five-hook release and drop device, dedicated OSDK connection cable, TF card with APP installation package.



After the preparation, first install the quick release mounting plate to the drone below, first remove the two fixing screws of the gimbal mounting plate, install the quick release plate to the same hole, use the included screws and tools, install the four fixing screws.





Install the five-hook release and drop device into the quick release plate, push it in after alignment, hear a click to indicate locking, and then shake the drop device to confirm if the installation is secure. (Refer to Figure 4)

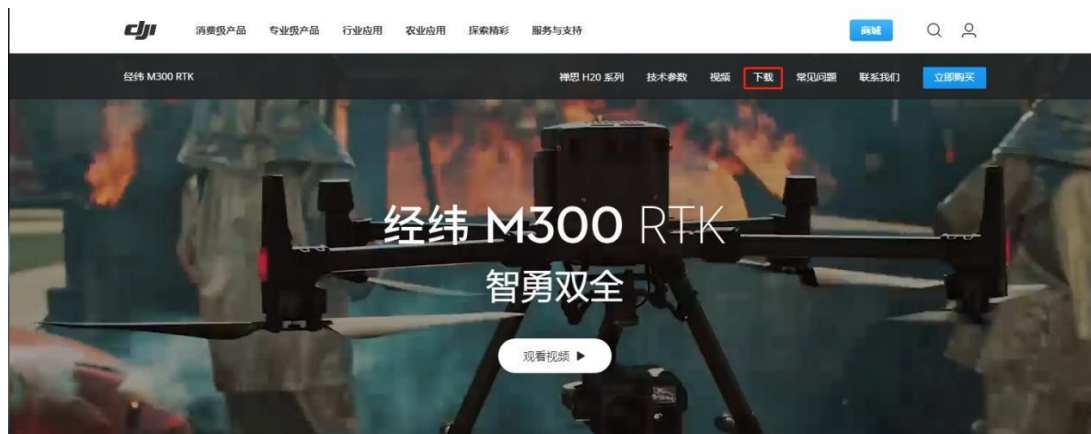


2.2 Configure the drone parameter through computer

Plug the USB end of the type-c cable into the USB port of your computer and the type-c connector end into the tuning connector on the top right side of the drone. (Opposite direction is left)



Need to go to DJI' s official website, Industry Applications,matrice300RTK, download page, and download the DJI Assistant 2 (Enterprise Series) tuning software.



经纬 M300 RTK

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App应用程序

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仅支持经纬M300 RTK
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软件与驱动

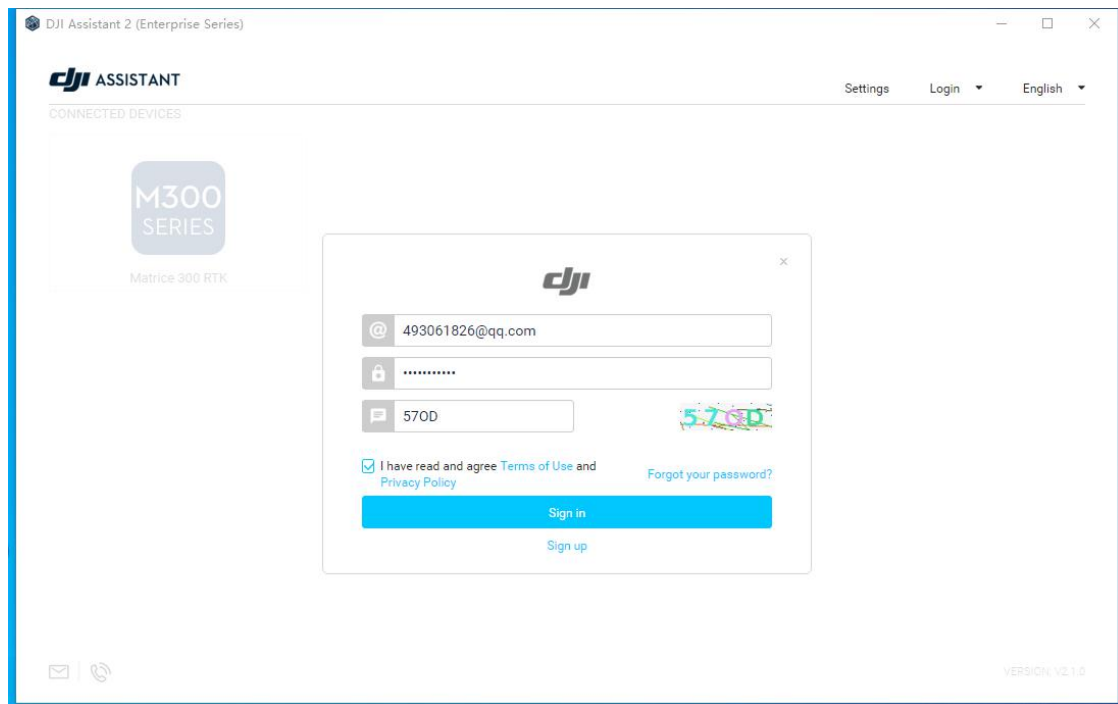
 **DJI Assistant 2 (Enterprise Series) 调参软件**

 **Mac 版本 V2.1.0**
2021-03-18
[pkg](#)

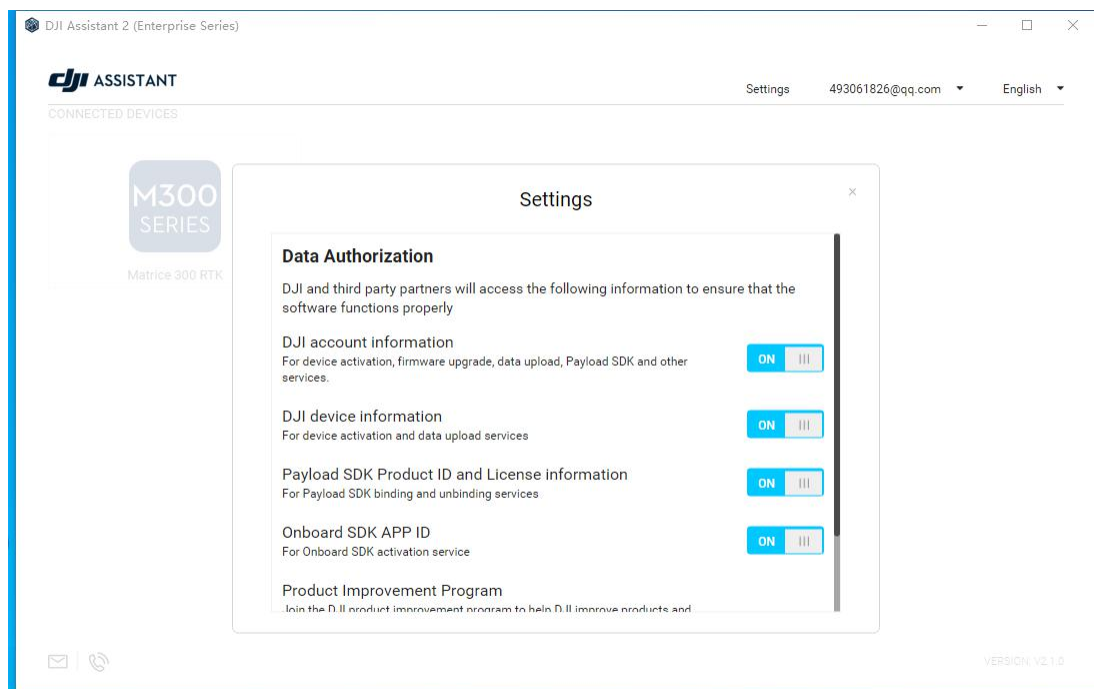
 **Windows 版本 V2.1.0**
2021-03-18
[exe](#) [zip](#)

Double click on the installation package,click OK, I accept the agreement, Next, Next, Install, click End.

Click User Login, make sure your computer is connected to the Internet, enter your DJI account number, password and verification code, click I have read and agree. and click Login.



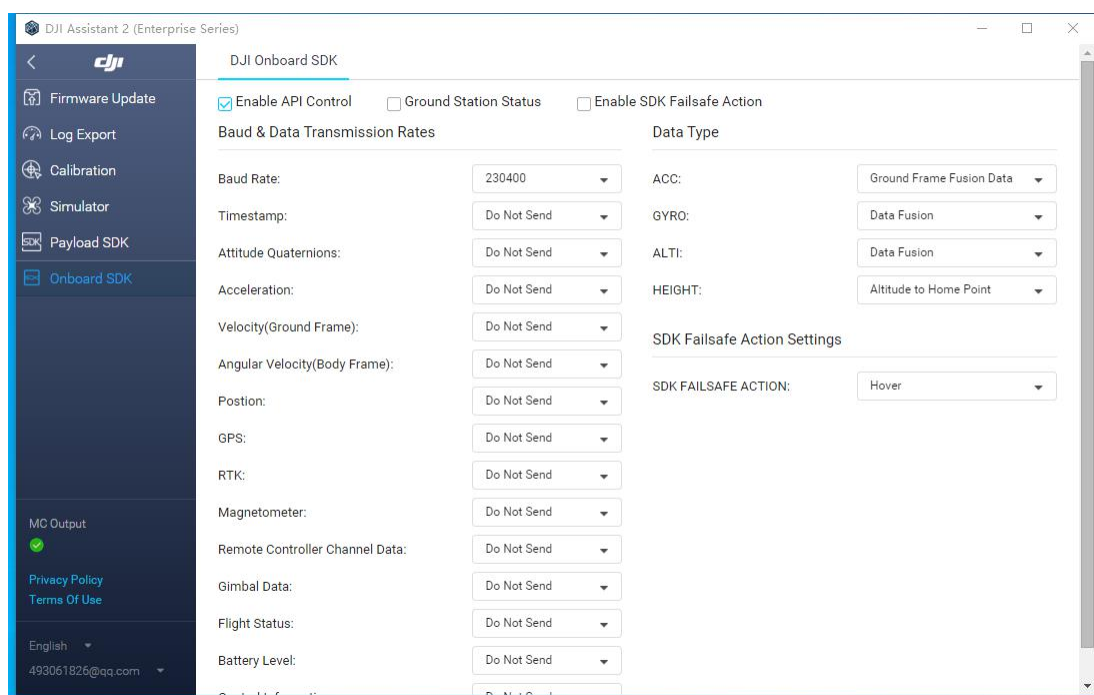
Click Settings next to the login account and turn all switches on.



Power on the drone, start it and observe the software interface, click on the M300 icon, enter and wait for the firmware version to refresh, if the firmware version is not the latest, please upgrade to the latest version.



Click Onboard SDK again, check the API checkbox, and change the baud rate to 230400. Then close the parameter configuration software, complete the drone parameter settings, unplug the type-c cable and power off the drone.



2.3 Data Cable Connection

Insert the body end of the special connection cable into the OSDK interface at the top of the drone, note that there are directional requirements, the plug single slot, facing the outside of the drone, make sure it is inserted firmly, and then insert the type-c end of the connection cable into the OSDK interface of the five-hook drop device, regardless of the positive or negative direction.

Note: The cable to the OSDK interface should not be detached when the drone is powered on to prevent damage to the interface!

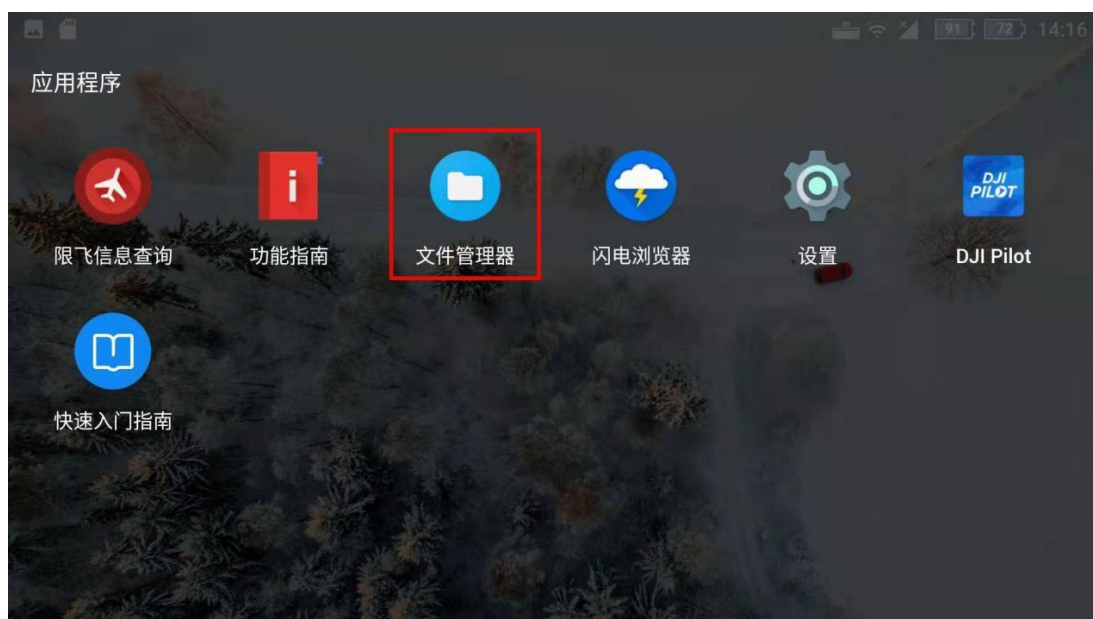
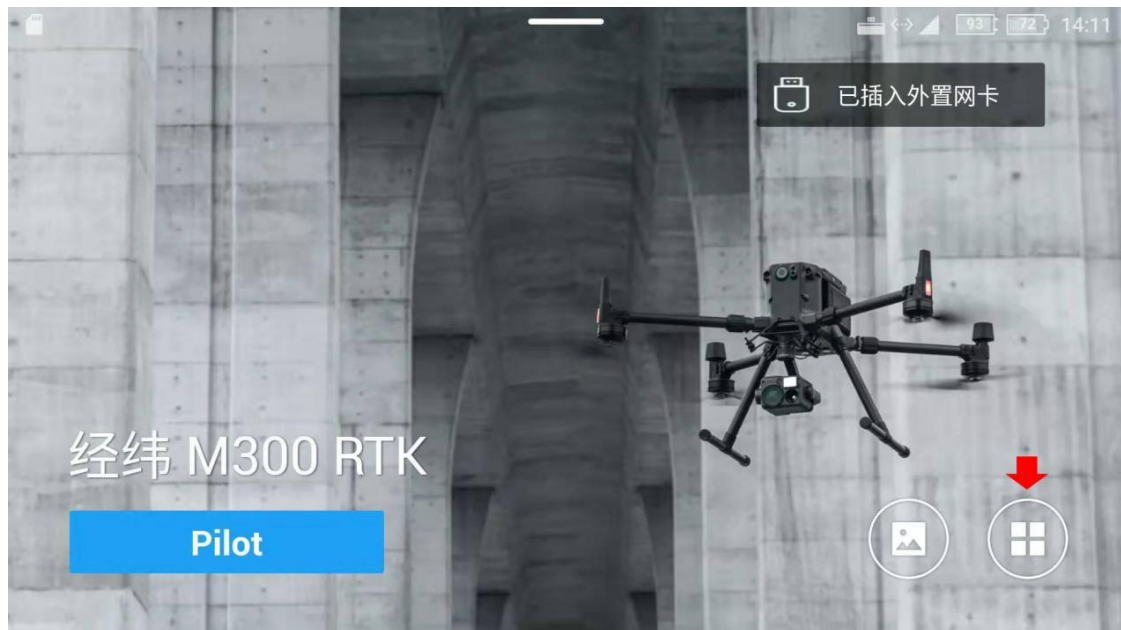


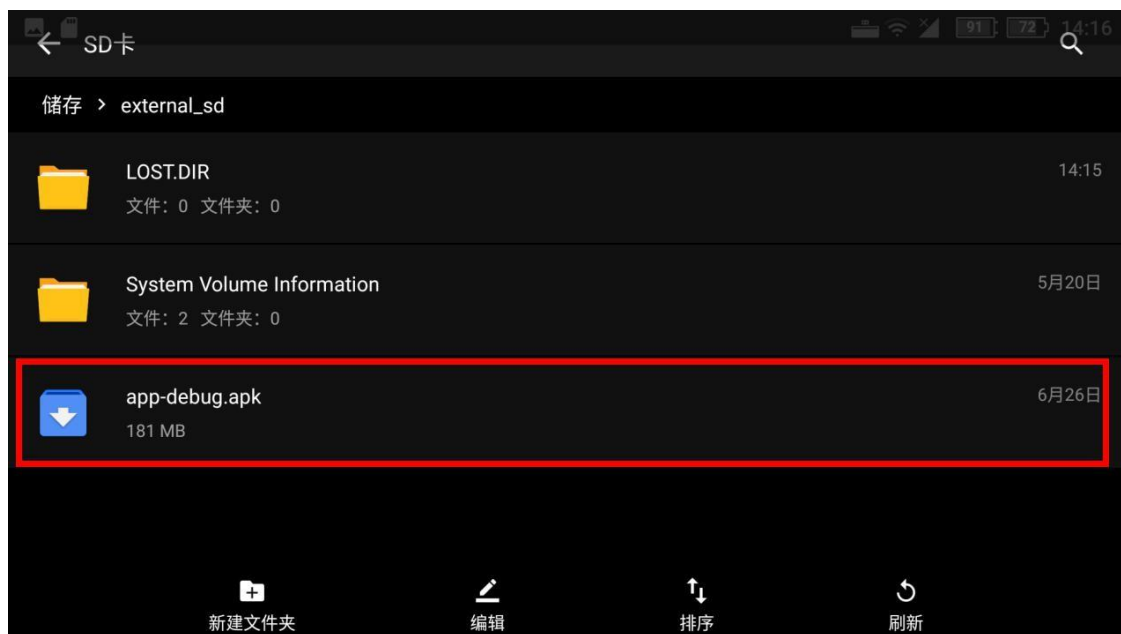
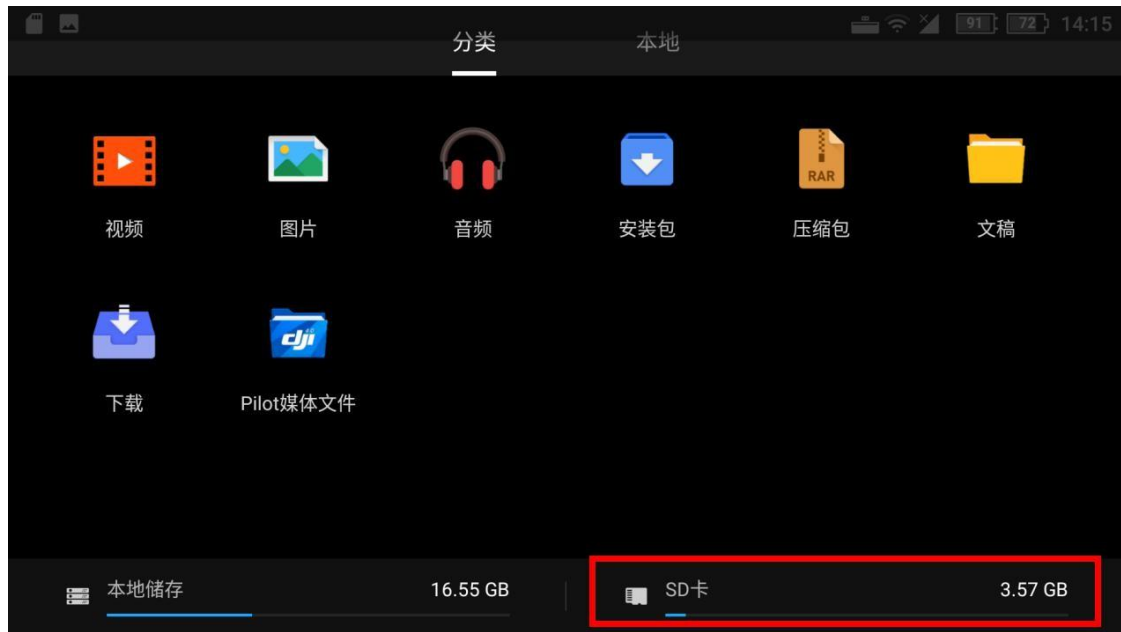
2.4 RC Software Installation

Insert the TF card with the APP installation package into the TF card slot of the remote control, pay attention to the installation direction.

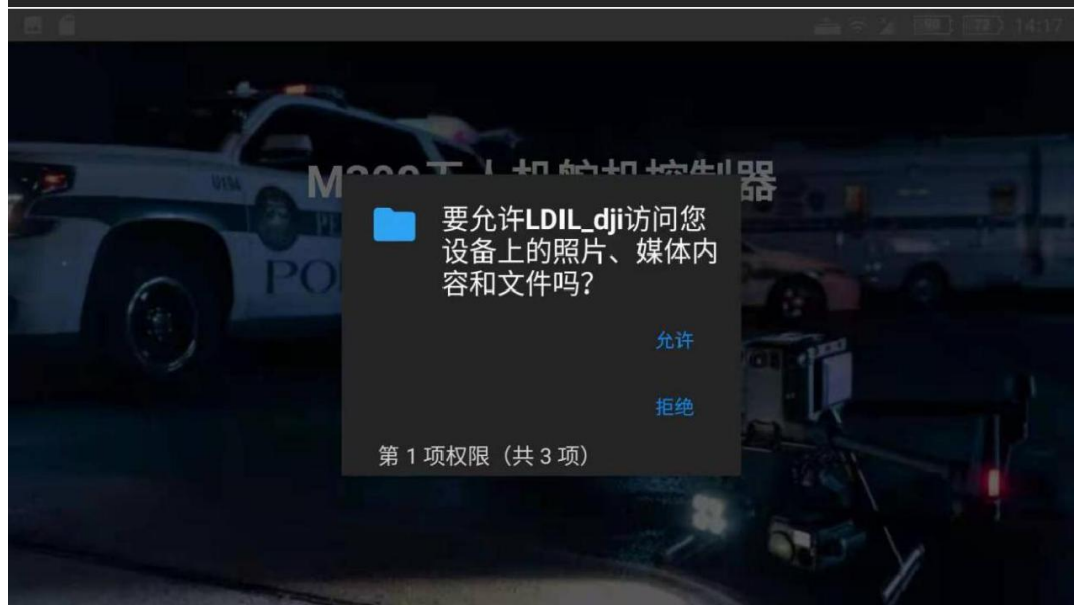
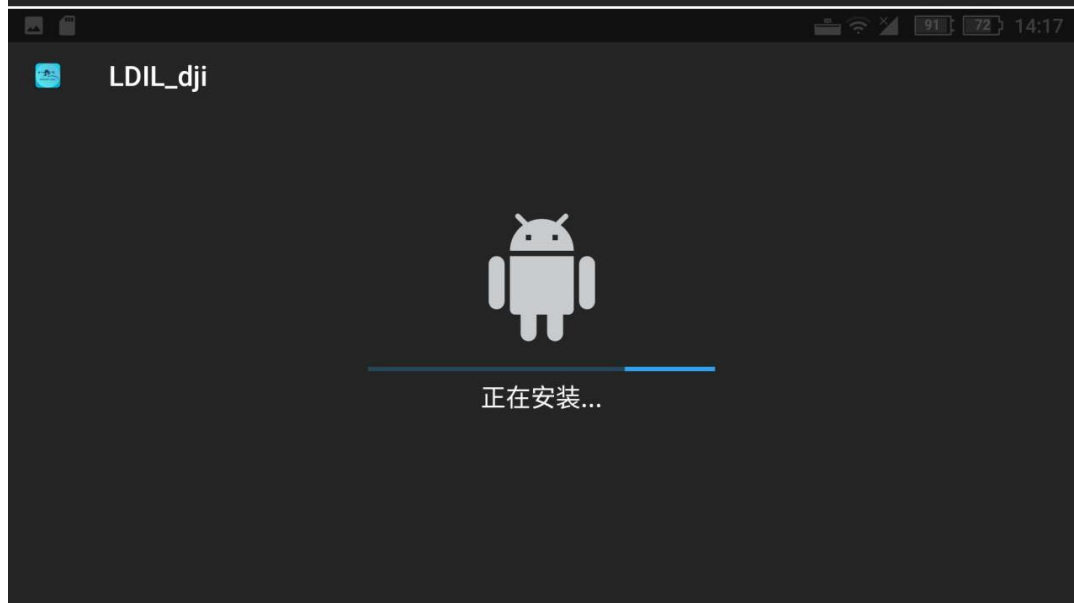


Power on the remote controller, start it and connect it to a reliable WIFI or mobile hotspot. Then click the menu icon at the bottom right corner, click File Management, click SD card, find and click app-debug.apk





Click Install, wait for the installation to complete, the Get Permissions screen will pop up, click Allow All to complete the installation process.



Then turn on the power of the drone, wait for the drone and the remote control to connect normally, after the login button changes color, click the login button, enter the APP, the installation and setup is complete.



三、How to use

After the APP is installed and the device is connected to the drone and powered on, the five-hook drop device will automatically enter the initial position.

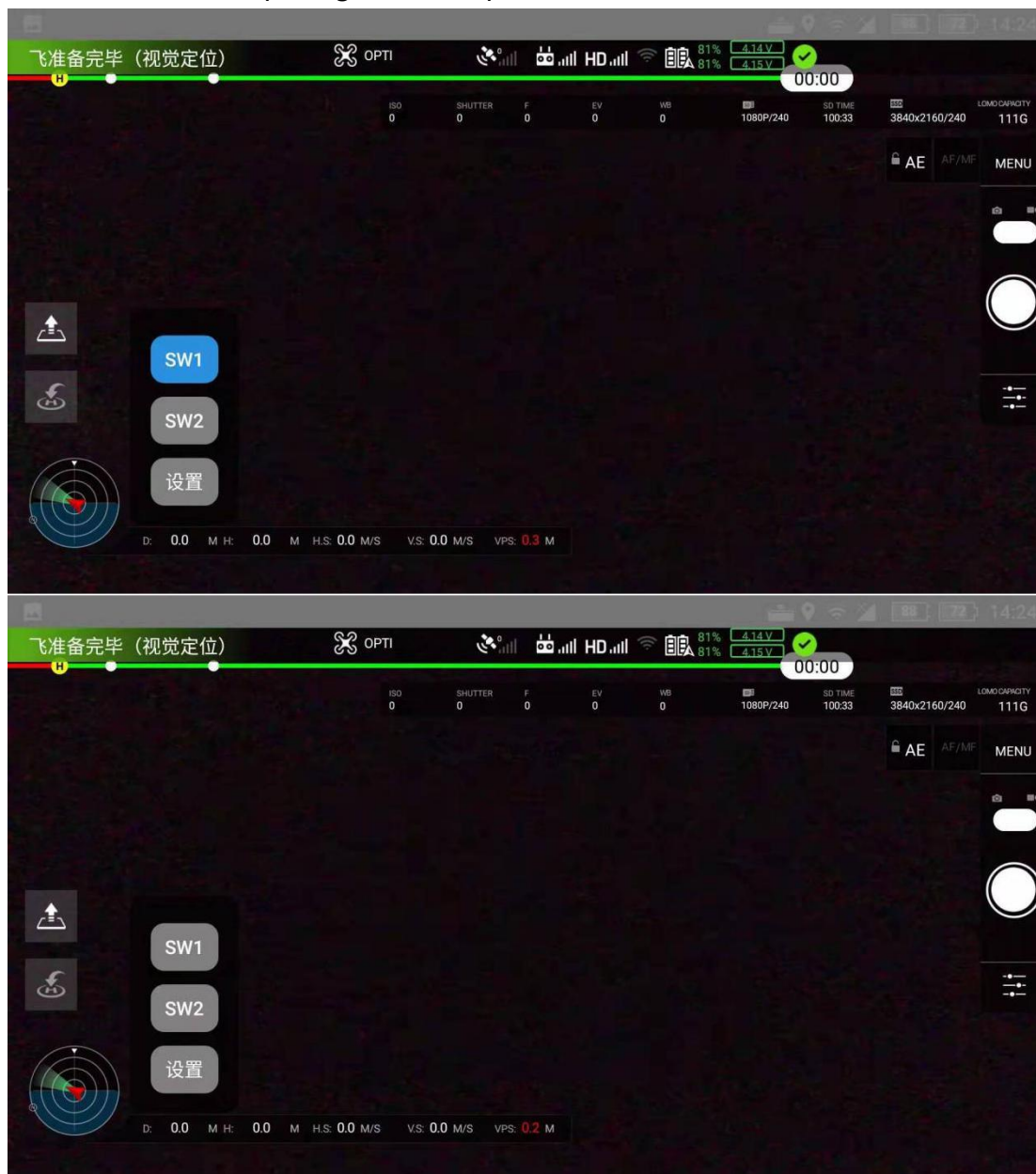
Then click the physical button on the five-hook drop device, each time you press the physical button, open a drop hook, put the rope of the object to be dropped to the drop hook locking range, press five times in turn, after loading five drop items, you can take off.



When the camera is vertical to the ground, click the SW1 icon on the left side of the APP to start the drop.

When the click button is blue, it is the drop state, and when it is gray, it is the lock state.

Open the 5 drop hook in sequence by clicking multiple times to drop items. After returning to the take-off point, you can load a new item using the physical button, or use the SW1 icon in the APP interface to control the opening of the drop hook.



Caution:

Try not to detach the osdk connection cable when the device is powered on, otherwise it may lead to damage to the OSDK interface, the damage phenomenon for the five-hook drop device can not be controlled (under the premise of normal use before); once damaged, you need to return to the factory to repair the OSDK interface of the drone, please pay attention to the order of the customer operation, should be plugged into both ends of the OSDK connection cable before the drone is powered on and started.

四、Technical Parameter

Technical Parameter

Size	62mm*62mm*92mm
Packing Case	252mm*217mm*121mm
Weight	295g
Interface	OSDK/PWM
Power	18w
Voltage	type-c interface 5~24V
Control Mode	OSDK+APP/PWM
Control Range	Same communication distance with the drone (DJI M300 RTK) If using a third-party drone, the control distance depends on the remote controller
Mounting Method	Quick-detach
Loading Hook Quantity	5
Payload Weight/Hook	5kg
Total Payload Weight	25kg
Load Order	in order
Drop Order	in order
Drop Function	Single point
Working Temperature	-20℃—45℃
Extension Function	Support third party drone (PWM signal control)
Supported Drone	DJI M300 RTK/Third Party Drone

五、Warranty Service

In order to get better repair and warranty service, when you need warranty service, the buyer need to return the restored product or damaged parts, pack carefully and provide proof of the time and place of purchase of the product.

Shipping costs will be paid by the buyer first, and the company will give after-sales service after inspection. If the return shipping costs are not due to product quality issues, the purchaser is responsible for the return shipping costs. The company does not accept unauthorized freight collect express item. Thank you for your cooperation.

Warranty service is not available in the presence of:

1. Any private modification, alteration or repair not made by our company or its authorized agencies.
2. Man-made damage, such as: drop, crash, crush, etc. caused by the failure.
3. Damage caused by overload voltage, not operating according to product instructions.
4. Damage to the device caused by the reversal of the power supply.
5. Destroyed by force majeure factors.
6. Destroyed by corrosive liquids.
7. Warranty expiration date.
8. Can not provide valid proof of purchase (invoice or transaction information)

Note: After purchasing the product, please read the above information carefully, if you have any questions, please contact the sales staff or the company's technical staff