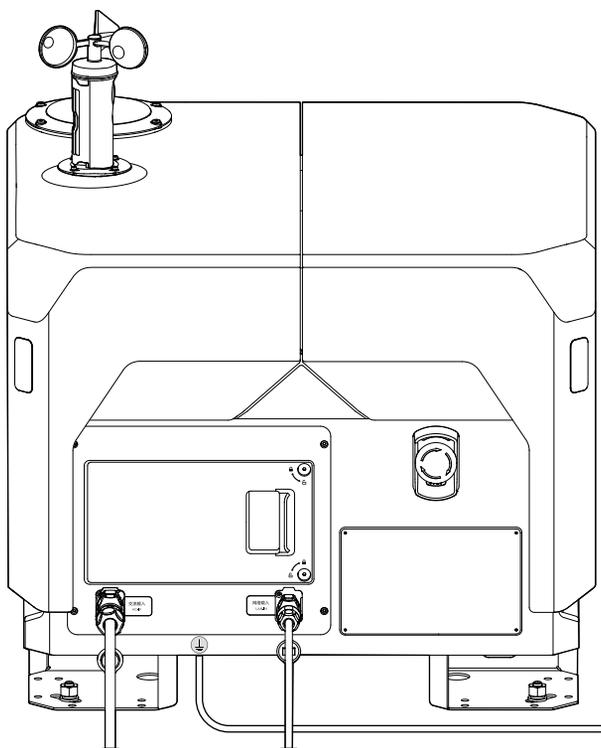


DJI DOCK 2

User Manual

v1.0 2023.11





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Searching for Keywords

Search for keywords such as Battery or Install to find a topic. If you are using Adobe Acrobat Reader to read this document, press Ctrl+F on Windows or Command+F on Mac to begin a search.

Navigating to a Topic

View a complete list of topics in the table of contents. Click on a topic to navigate to that section.

Printing this Document

This document supports high resolution printing.

Using this Manual

Legends

 Important

 Hints and Tips

Read Before Use

DJI™ provides users with tutorial videos and the following documents.

- 1.Safety Guidelines
- 2.Quick Installation Guide
- 3.Installation and Setup Manual
- 4.User Manual

It is recommended to watch all tutorial videos and read the Safety Guidelines before using for the first time. Prepare for dock installation and first flight by reviewing the Quick Installation Guide. Refer to the Installation and Setup Manual and this user manual for more information.

-
- ⚠ • DJI Dock must be installed and set up by an authorized service provider. Unauthorized installation and set up may lead to safety risks. Contact DJI Support for information on authorized service providers.
-

Download DJI Assistant 2

Download and install DJI ASSISTANT™ 2 (Enterprise Series) using the link below:

<https://enterprise.dji.com/dock-2/downloads>

Video Tutorials

Go to the address below or scan the QR code to watch the DJI Dock tutorial videos, which demonstrate how to use the Matrice 30 Dock Bundle safely.



<https://enterprise.dji.com/dock-2/video>

-
- ⚠ • The operating temperature of DJI Dock is -13 ° C (-31 ° to 113 ° F),^[2] and the operating temperature of the aircraft is -20° to 45° C (-4° to 113° F). It does not meet the standard operating temperature for military-grade application (-55 ° to 125 ° C/-67 ° to 257 ° F), which is required to endure greater environmental variability. Appropriately use the product for applications that meet the operating temperature range requirements of that grade.
-

[1] When the temperature is below -20° C (-4° F), the aircraft cannot perform flight tasks.

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Product Profile

Introduction

DJI™ Dock 2 is a compact and high-performance unattended operation platform. The dock adopts a lightweight design and can be carried by two people, the highly integrated body design allows quick installation and configuration. Dock site evaluation can be completed within 12 minutes with the help of vision evaluation technology. The dock can achieve a protection level of IP55 (refer to IEC 60529 standard). The longest maintenance interval is six months.^[1] The dock comes with a quick-charging module and an air conditioning system, allowing it to cool down and charge the battery in a short time. It takes approximately 32 minutes to charge the battery from 20 to 90%.^[2] And the maximum effective operating radius can reach up to 10

km.^[3]

The aircraft is equipped with a six-directional vision system and a infrared sensing system^[4], and supports RTH and obstacle sensing. The internal RTK facilitates accurate high-precision positioning, meeting the need of high-precision operation and improved flight safety. The aircraft can achieve a protection level of IP54 (refer to IEC 60529 standard), and a maximum flight time of approximately 50 minutes.^[5]

DJI FlightHub 2 is a cloud-based aircraft task management platform, and can work with DJI Dock 2 and Matrice 3D Series aircraft to perform unattended operations, achieving efficient flight task and device management.

- [1] Actual maintenance intervals should be determined based on the deployment environment and operating frequency. It is recommended to conduct maintenance every six months or less.
- [2] This data is tested at a room temperature of 25° C (77 ° F) to charge the battery from 20% to 90% when the aircraft is powered off, and should be used for reference only.
- [3] Tested in a controlled environment. Actual results may vary due to different environments, usage, and firmware version.
- [4] The Vision and Infrared Sensing Systems are affected by surrounding conditions. Refer to the Vision System and Infrared Sensing System section for more information.
- [5] The maximum flight time was tested in a lab environment and is for reference only.

Feature Highlights

Gimbal and Camera: DJI Matrice 3D aircraft has a tele camera and a wide camera with a mechanical shutter, meeting the needs for high-precision mapping tasks. DJI Matrice 3TD aircraft, equipped with a wide camera, a tele camera, and an infrared camera, can depict both visible light and thermal images, making it suitable for security and inspection operations.

Cloud-Based Modeling: DJI FlightHub 2 can generate high-precision 3D models based on the collected flight data, restoring the operating environment authentically. Utilizing high-precision 3D models, users can conduct visual flight route editing from a first-person perspective and preview simulated imaging results, enhancing flight route planning accuracy.

Cloud-Based Operation: DJI FlightHub 2 supports flight task planning, live flight controls, and device management of the dock. Users can set flight task plans based on actual needs. The aircraft will automatically takeoff according to the preset task plans, and the media files will be automatically uploaded to DJI FlightHub 2. Users can also gain aircraft control and payload control and control the aircraft, gimbal and payload remotely. During operation, livestreams and real-time device information can be viewed remotely to monitor the operation site. Users can conduct remote debugging, making device management more convenient.



- For more information, refer to the DJI FlightHub 2 User Guide which is available to download from the official DJI website <https://www.dji.com/flighthub-2/downloads>.
-

Flight Safety

Compliance with Regulations

- DO NOT operate in the vicinity of manned aircraft. DO NOT interfere with the operations of manned aircraft. Be alert and make sure there is no other aircraft in the operation area.
- DO NOT fly the aircraft in venues of major events, including but not limited to sporting events and concerts.
- DO NOT fly the aircraft without authorization in areas prohibited by local laws. Prohibited areas include airports, national borders, major cities and densely populated areas, venues of major events, areas where emergencies have occurred (such as forest fires), and locations with sensitive structures (such as nuclear power plants, power stations, hydropower plants, correctional facilities, heavily traveled roads, government facilities, and military zones).
- DO NOT fly the aircraft above the authorized altitude. DO NOT use the aircraft to carry illegal or dangerous goods or payloads.
- Make sure you understand the nature of your flight operation (such as for recreation, for public use, or for commercial use) and have obtained corresponding approval and clearance from the related government agencies before flight. Consult with your local regulators for comprehensive definitions and specific requirements. Note that remote-controlled aircraft may be banned from conducting commercial activities in certain countries and regions. Check and follow all local laws and ordinances before flying, as those rules may differ from those stated here.
- Respect the privacy of others when using the camera. DO NOT conduct surveillance operations, such as image capture or video recording on any person, entity, event, performance, exhibition, or property without authorization or where there is an expectation of privacy, even if the image or video is captured for personal use.
- Be advised that in certain areas, the recording of images and videos from events, performances, exhibitions, or commercial properties by means of a camera may contravene copyright or other legal rights, even if the image or video was shot for personal use.
- DO NOT use this product for any illegal or inappropriate purpose, such as spying, military operations, or unauthorized investigations. DO NOT trespass onto the private property of others. DO NOT use this product to defame, abuse, harass, stalk, threaten, or otherwise violate the legal rights of others, such as privacy and publicity rights.

Environment and Wireless Communications Requirements

- DO NOT operate the aircraft in severe weather conditions, including wind speeds exceeding 12 m/s⁽¹⁾, snow, rain heavier than 24.9 mm in 24 hours, and fog.

- Avoid obstacles, crowds, trees, and bodies of water (recommended height is at least 3 m above water).
- Be extremely alert when flying near areas with magnetic or radio interference. It is recommended to set the remote controller as controller B during flight tests. Pay close attention to the video transmission quality and signal strength on DJI Pilot 2. Sources of electromagnetic interference include but are not limited to: high voltage lines, large-scale power transmission stations or mobile base stations, and broadcasting towers. The aircraft may behave abnormally or lose control when flying in areas with too much interference. Return to the dock and land the aircraft, and make future task plans until the flight test is stable.
- Fly in wide open areas. Tall buildings, steel structures, mountains, rocks, or tall trees may affect the accuracy of the GNSS and block the video transmission signal.
- Avoid interference between the dock and other wireless equipment. It is recommended to power off nearby Wi-Fi and Bluetooth devices.
- The maximum flight altitude is 5000 m. The performance of the aircraft and its battery is limited when flying at high altitudes. Fly with caution.
- DO NOT use the aircraft or the dock in an environment at risk of a fire or explosion.
- Only operate the dock and the aircraft for applications in the operating temperature range. The operating temperature of DJI Dock is -13° to 45° C (-31° to 113° F), and the operating temperature of the aircraft is -20° to 45° C (-4° to 113° F). [2] In low-temperature environments, it is necessary to check whether the dock cover and the aircraft is covered with snow and ice, and whether the propellers are frozen using dock camera livestreams.
- Make sure to set an alternate landing site before flight. The aircraft will fly to the alternate landing site when the dock is not suitable for landing. Follow the instructions in DJI Pilot 2 app to set an alternate landing site when deploying the dock. An obvious sign should be set up near the alternate landing site. Make sure that the area within the five-meter radius of the alternate landing site is clear of obstacles.

[1] The aircraft can withstand a wind speed of up to 8 m/s during takeoff and landing.

[2] When the temperature is below -20° C (-4° F), the aircraft cannot perform flight tasks.

Flight Restrictions and Unlocking

GEO (Geospatial Environment Online) System

The DJI Geospatial Environment Online (GEO) system is a global information system that provides real-time information on flight safety and restriction updates and prevents UAVs from flying in restricted airspace. Under exceptional circumstances, restricted areas can be unlocked to allow flight. Prior to that, the user must submit an unlocking request based on the current restriction level in the intended flight area. The GEO system may not fully comply with local laws and regulations. Users shall be responsible for their own flight

safety and must consult with the local authorities on the relevant legal and regulatory requirements before requesting to unlock a flight in a restricted area.

GEO Zones

DJI's GEO system designates safe flight locations, provides risk levels and safety notices for individual flights and offers information on restricted airspace. All restricted flight areas are referred to as GEO Zones, which are further divided into Restricted Zones, Authorization Zones, Warning Zones, Enhanced Warning Zones, and Altitude Zones. GEO Zones include but are not limited to airports, venues of major events, areas where emergencies have occurred (such as forest fires), nuclear power plants, correctional facilities, government facilities, and military zones. Users can view real-time GEO information in DJI FlightHub 2.

By default, the GEO system limits takeoffs and flights in zones that may cause safety or security concerns. A GEO Zone map that contains comprehensive information on GEO Zones around the globe is available on the official DJI website: <https://fly-safe.dji.com/nfz/nfz-query>.

The settings and alerts provided by DJI on operations within GEO Zones are only to assist the user in ensuring flight safety and DO NOT guarantee full compliance with all local laws and regulations. Before each flight task, the user is responsible for seeking advice on the relevant local laws, regulations, and requirements for the safety of their own aircraft.

Flight Restrictions in GEO Zones

The following section describes in detail the flight restrictions for the above mentioned GEO Zones.

GEO Zone	Flight Restriction	Scenario
Restricted Zones (Red)	UAVs are prohibited from flying in Restricted Zones. If you have obtained permission to fly in a Restricted Zone, please visit https://fly-safe.dji.com/unlock or contact flysafe@dji.com to unlock the zone.	The dock aircraft cannot take off.
Authorization Zones (Blue)	The aircraft will not be able to take off in an Authorization Zone unless it obtains a permission to fly in the area.	To fly in an Authorization Zone, the user is required to submit an unlocking license request and synchronize the license to the dock in DJI Pilot 2 app.

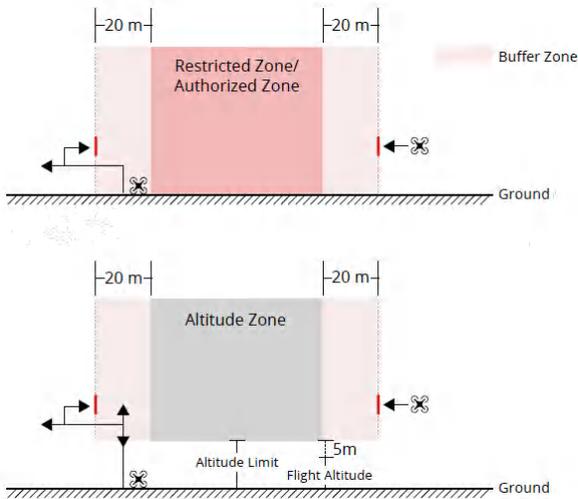
Warning Zones (Yellow)	The aircraft can fly in the zone.	The aircraft can fly in the zone. Please view GEO information in DJI FlightHub 2 and stay alert.
Enhanced Warning Zones (Orange)		
Altitude Zones (Gray)	The aircraft's altitude is limited when flying inside an Altitude Zone.	The dock aircraft cannot take off, and a prompt will appear in DJI FlightHub 2 when the planned flight altitude exceeds the maximum altitude of the aircraft.

Buffer Zone

Buffer Zones for Restricted Zones/Authorization Zones: To prevent the aircraft from accidentally flying into a Restricted or Authorization Zone, the GEO system creates a buffer zone of about 20 meters wide outside each Restricted and Authorization Zone. As shown in the illustration below, the aircraft can only take off and land away from the Restricted or Authorization Zone when inside the buffer zone. The aircraft cannot fly toward the Restricted or Authorization Zone unless an unlocking request has been approved. The aircraft cannot fly back into the buffer zone after leaving the buffer zone.

Buffer Zones for Altitude Zones: A buffer zone of about 20 meters wide is established outside each Altitude Zone. As shown in the illustration below, when approaching the buffer zone of an Altitude Zone in a horizontal direction, the aircraft will gradually reduce its flight speed and hover outside the buffer zone. When approaching the buffer zone from underneath in a vertical direction, the aircraft can ascend and descend in altitude or fly away from the Altitude Zone. The aircraft cannot fly toward the Altitude Zone. The aircraft cannot fly back into the buffer zone in a horizontal direction after leaving the buffer zone.

- ⚠ • When creating a flight task in Task Plan Library, make sure that the selected flight route does not pass through any GEO zones, and that the RTH altitude and flight route altitude is at least 5 meters below the altitude limit. It is recommended that the flight route keeps a horizontal distance of at least 20 meters from the GEO zone.



Unlocking GEO Zones

To satisfy the needs of different users, DJI provides two unlocking modes: Self-Unlocking and Custom Unlocking. Users may request on the DJI Fly Safe website.

Self-Unlocking is intended for unlocking Authorization Zones. To complete Self-Unlocking, the user is required to submit an unlocking request via the DJI Fly Safe website at <https://fly-safe.dji.com/unlock>. Once the unlocking request is approved, the user may synchronize the unlocking license to the dock using the DJI Pilot 2 app to unlock the zone. The user can designate an unlocked period during which multiple flights can be operated.

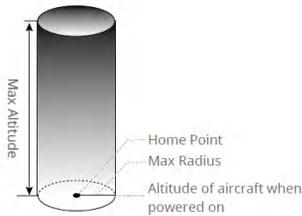
Custom Unlocking is tailored for users with special requirements. It designates user-defined custom flight areas and provides flight permission documents specific to the needs of different users. This unlocking option is available in all countries and regions and can be requested via the DJI Fly Safe website at <https://fly-safe.dji.com/unlock>.

For more information about unlocking, please visit <https://fly-safe.dji.com> or contact flysafe@dji.com.

Maximum Altitude & Distance Restrictions

Maximum flight altitude restricts the aircraft flight altitude, while maximum flight distance restricts the aircraft flight radius around the dock. These limits can be set using the DJI FlightHub 2 for improved flight safety. The maximum flight altitude is 120 m (393.7 ft) by default. Fly at altitudes lower than the maximum altitude in accordance with all local laws and regulations.^[1]

[1] Flight altitude restrictions vary in different regions. DO NOT fly above the maximum altitude set forth in your local laws and regulations.



Home Point not manually updated during flight

	Flight Restrictions	FlightHub 2 Prompt
Max Altitude	Altitude of the aircraft cannot exceed the value set in DJI FlightHub 2.	Flight route altitude exceeds maximum altitude, the dock is unable to perform flight task.
Max Radius	The straight-line distance from the aircraft to the Home Point cannot exceed the max flight distance set in DJI FlightHub 2.	Flight route distance exceeds maximum distance, the dock is unable to perform flight task.

- ⚠ • The aircraft cannot take off when the GNSS signal is weak.
- For safety reasons, DO NOT fly the aircraft close to airports, highways, railway stations, railway lines, city centers, or other sensitive areas.

- ☀ • Open DJI FlightHub 2 Project page, click > to manage the custom task areas and GEO Zones, or import obstacle data. The aircraft can bypass GEO Zones and the imported obstacles during RTH or when performing FlyTo tasks.

DJI AirSense

Manned airplanes or helicopters with Automatic Dependent Surveillance–Broadcast (ADS-B) transmitters can broadcast flight information. The DJI aircraft equipped with DJI AirSense can receive the flight information broadcast from ADS-B transmitters that comply with the 1090ES (RTCA DO-260) or UAT (RTCA DO-282) standard and within a radius range of 10 km. DJI AirSense only issues warning messages under certain circumstances when specific manned airplanes or helicopters are approaching and is not able to actively control or take over the DJI aircraft to avoid collisions. Users should always fly the aircraft within the visual line of sight and be cautious at all times to ensure flight safety. DJI AirSense has the following limitations:

DJI AirSense can only receive messages broadcast by manned airplanes or helicopters installed with an ADS-B Out device that is in compliance with the 1090ES or UAT standard. DJI AirSense cannot receive messages from manned airplanes or helicopters that are not equipped with ADS-B Out devices or equipped with devices that are not functioning properly.

DJI AirSense uses satellite and radio signals to receive ADS-B messages. If there is an obstacle between a manned airplane or helicopter and a DJI aircraft, DJI AirSense may not be able to receive broadcast and issue warning messages.

- 3 Warning prompts may be delayed if DJI AirSense experiences any interference from the surrounding environment. Keenly observe your surroundings and fly with caution.
- 4 Warning messages may not be accurate when the DJI aircraft is unable to obtain its location information.
- 5 DJI AirSense cannot receive broadcast from manned airplanes or helicopters, nor send warning messages to FlightHub 2 users when DJI AirSense is disabled or not properly functioning.

DJI FlightHub 2 collects all the DJI AirSense data reported by the dock aircraft in the project and displays the location of an approaching manned airplane or helicopter, as well as a warning message on the web page when there is a potential risk of collision. DJI AirSense can analyze and obtain the location, altitude, orientation, and velocity of the surrounding manned airplanes or helicopters, and compare such figures with the current position, altitude, orientation, and velocity of the DJI aircraft to calculate in real time the potential risk of collision with the surrounding manned airplanes or helicopters.

- Warning (high collision risk): A red airplane icon will appear on the map, and the web page will display the message stating, "Manned aircraft nearby. Take over aircraft promptly to avoid". FlightHub 2 users can click the dock name to open the device status window and obtain the aircraft control to avoid collisions.

- Caution (medium collision risk): A yellow airplane icon will appear on the map when a manned airplane or helicopter is relatively near the dock aircraft.
- Normal (low collision risk): A blue airplane icon will appear on the map when the manned airplane or helicopter is relatively far away from the dock aircraft.



- Users can click  in the lower right corner of the map to decide whether to display the low and medium collision risk warnings on the map.

Flight Test Checklist

After adding new flight route or changing flight route settings, it is recommended to perform on-site flight test to ensure normal dock operation.

On-site Checklist

- Make sure there is no foreign object in the battery ports of the aircraft.
- Make sure the batteries are installed firmly, and the battery locks are firmly secured.
- Make sure the propellers are securely mounted and not damaged or deformed and that there are no foreign objects in or on the motors or propellers.
- Make sure the lenses of the vision systems, gimbal cameras, the glass of the infrared sensors, and the auxiliary lights are clean and not blocked in any way.
- Make sure the covers of the microSD card slot, the USB-C assistant port (E-Port Lite), and the E-Port are firmly closed.
- Make sure the Wind Speed Gauge rotates properly and that the rainfall gauge surface is clear of dirt or foreign objects.
- Make sure the landing pad surface is clear of dirt or foreign objects.
- Make sure the temperature and humidity sensor inside the dock cover is not blocked in any way.
- Make sure the aircraft is correctly placed on the landing pad and the aircraft heading is aligned with the arrow mark. To ensure flight safety, make sure that there is no obstacle within 5 m of the dock.
- Make sure the Emergency Stop Button is released.
- Modify the aircraft settings using the remote controller (sold separately) based on actual needs. Check the settings of the obstacle braking distance, warning distance, and gimbal camera settings in the DJI Pilot 2 app.

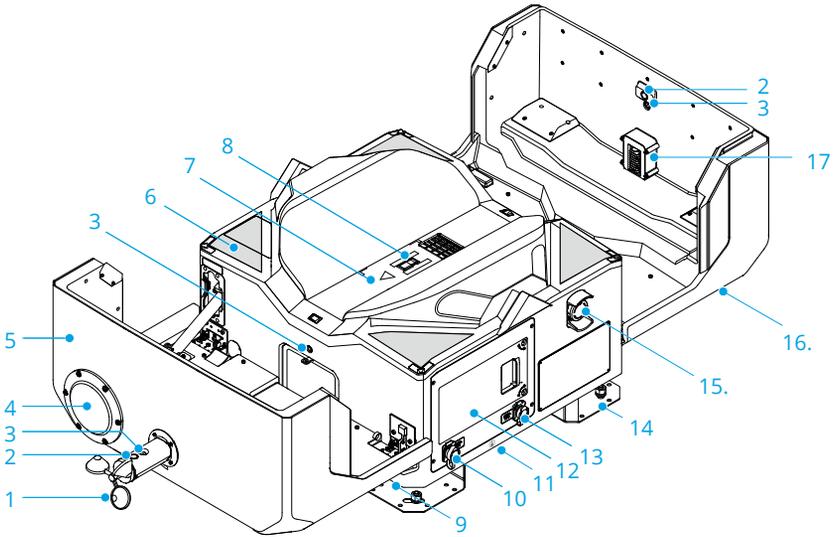
DJI FlightHub 2 Checklist

- Open DJI FlightHub 2 Project page, click  >  and check the following:
 - a. Make sure the dock status is Idle, and the aircraft status is in Standby or Powering Off.
 - b. Make sure the wind speed, external temperature, and rainfall are within the reasonable range, and that the dock network connection is stable.
 - c. Click Live to open the dock livestream. Make sure the dock cover surface is clear of obstacles and snow or ice.
 - d. Click Action to check the device status. Make sure the dock RTK is calibrated and converged, the satellite signal is good, and that the device storage has enough free space.
 - e. Make sure to enable the obstacle sensing of the aircraft. Make sure to turn on the beacons of the aircraft at night. Make sure to set maximum altitude and distance, and alternate route altitude based on actual flight conditions.
 - Make sure the dock and aircraft firmware have been updated to the latest version in the Devices page.
 - Make sure that an alternate landing site is set.
 - Check the following flight route settings:
 - a. Make sure that the flight route does not pass through any GEO zones, and that the flight route keep a horizontal distance of at least 20 meters from the GEO zone.
 - b. Check the takeoff point, altitude mode, and flight altitude. When flying near a GEO zone, it is recommended to set the flight altitude at least 5 meters below the altitude limit of the GEO zone.
 - When creating a task plan, make sure to set the RTH altitude at least 5 meters below the altitude limit.
 - Pay attention to the flight altitude, flight speed, battery level, and other flight parameters during the flight test.
 - Divide the airspace for flight when multiple aircraft are operating simultaneously in order to avoid collision mid-air.
-
-  • It is recommended to link the remote controller as controller B before flight tests for safety reasons.
- To ensure flight precision, when importing flight routes to DJI FlightHub 2, make sure the RTK signal source of the flight route is the same as the signal source used to calibrate the dock RTK. Otherwise, the actual flight trajectory of the aircraft differs from the preset flight route, and may even cause the aircraft to crash.
-

-
- ☀️ • After a task plan is launched, the dock will automatically check whether the environment (such as wind speed, rainfall and external temperature) is suitable for flight tasks. To ensure flight safety, the aircraft cannot take off in the following conditions:
 - a. Wind speed is above 8 m/s.
 - b. When the rainfall exceeds 24.9 mm in 24 hours.
 - c. Environment temperature is below -20° C (-4° F).
 - d. The Emergency Stop Buttons is pressed.
 - e. The dock power supply is disabled.
 - f. The Intelligent Flight Battery level is below 30%.
 - g. The aircraft satellite signal is weak (the aircraft satellite icon in DJI FlightHub 2 is red).
 - h. Battery lifespan reached.
 - If a warning message appears in DJI FlightHub 2, click the message to view warning details, and follow the instructions to conduct remote debugging.
 - Try lowering the flight altitude and the RTH altitude to reduce the effect of the strong wind. Meanwhile, check the flight altitude and the RTH altitude to ensure the flight path and the RTH path is free of any obstacles.
-

Dock

Overview



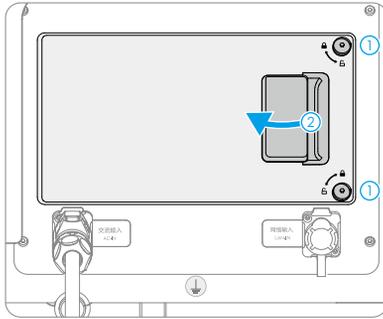
- | | | |
|----------------------------|---|----------------------------|
| 1. Wind Speed Gauge | 7. Landing Pad | 12. Electrical Cabinet |
| 2. Wide Camera | 8. Aircraft Orientation Mark ^[1] | 13. LAN-IN Port |
| 3. Camera Auxiliary Lights | 9. Carrying Handle | 14. Mounting Base Brackets |
| 4. Rainfall Gauge | 10. AC-IN Port | 15. Emergency Stop Button |
| 5. Dock Cover | 11. Earth Wire (connected to the dock bottom) | 16. Status Indicators |
| 6. Positioning Marks | | 17. Dongle Compartment |

[1] Built in charging module, make sure the surface is not covered with any metal object.

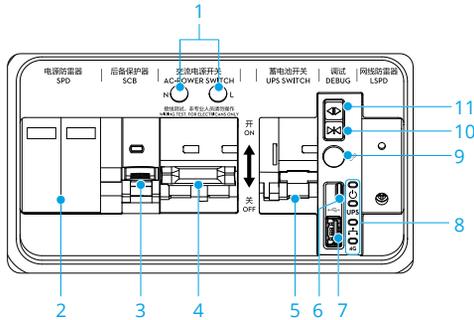
Electrical Cabinet

The Electrical Cabinet has an AC Power Switch, Backup Battery Switch, Surge Protective Devices (SPD), and operation ports. The Electrical Cabinet can be connected to external cables for dock grounding, power supply, and wired network connection. The dock can be connected to the remote controller via the USB-C port on the electrical cabinet or to a computer via the USB-A port for on-site operations.

Loose the screw of the electrical cabinet door using a 2.5 mm Hex Key. Pull to open the electrical cabinet door and view the operation panel.



Panel Description



Overview	Description
1. Wiring Test Terminals	Connect to the multimeter to test the voltage when configuring the dock.
2. SPD for AC Power	Protect electrical devices of the dock from lightning, overvoltage, and surge damage.
3. Surge Protector Circuit Breaker (SCB)	Protect the SPD for AC Power and conduct leakage protection to avoid risk of fire.
4. AC Power Switch	Power on/off the dock.
5. Backup Battery Switch	Enable/Disable backup battery of the dock.
6. USB-C Port	Connect to a computer to access DJI Assistant 2.
7. USB-A Port	Connect the remote controller to the dock for dock deployment and set up.

8. Electrical Cabinet Indicators	Indicate the working status of the power supply, the backup battery, the wired network and the wireless network.
9. Link Button	Press and hold the link button to link the dock and the aircraft. Press and hold the open button to open the dock cover.
10. Close Button	Press and hold the close button to close the dock cover.
11. Open Button	Press and hold the open button to open the dock cover.

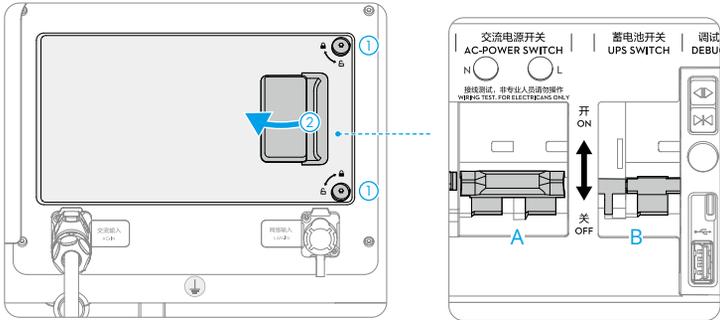
Electrical Cabinet Indicators

	Status Indicator	Status	Description
	Power Indicator	 — Solid Red	AC power supply is normal.
		Off	No AC power supply.
UPS	Backup Battery Indicator	 — Solid blue	Backup battery is full or is supplying power.
		 Blinks blue slowly	Backup battery is charging.
		 Blinks blue quickly	Backup battery is low battery power.
		Off	The backup battery is not installed or the backup battery switch is turned off.
	Ethernet Indicator	 Blinks green quickly	Ethernet is connected and has data transfer with the dock.
		Off	Ethernet is disconnected.
4G	4G Network Indicator	 Blinks green quickly	4G network is connected and has data transfer with the dock.
		Off	4G network is disconnected or does not have data transfer with the dock.

Backup Battery

The dock features a backup battery with a capacity of 12 Ah and maximum runtime of approximately 5 hours. If the dock is powered off due to an emergency power outage, the backup battery can provide power to the dock so that the aircraft can safely return to the dock and land.

- ⚠️ • After a power outage, DJI Dock 2 does not support functions like aircraft charging, air conditioning, dock cover heating, and wind speed gauge heating. Always check malfunctions in time.
- Check and fix the error as soon as possible to restore power to the dock. Make sure to push the backup battery switch downward into the off position if the power supply cannot be restored and the dock is not used for an extended period. Otherwise, the backup battery will over-discharge when powered on for more than 20 days. Replace the backup battery if over-discharged.



Charging the Backup Battery

If the dock is stored for an extended period, make sure to charge the backup battery before use:

1. Loosen the screw of the electrical cabinet door using a 2.5 mm Hex Key. Pull to open the electrical cabinet door.
2. Turn on the AC power switch (A) to power on the dock. Turn on the backup battery switch (B) to charge the backup battery.

When the dock is not in use for an extended period, make sure to maintain the backup battery by charging it for at least six hours. Refer to the following table for the backup battery maintenance intervals under different storage temperatures.

Storage Temperature	Backup Battery Maintenance Interval
Below 20° C (68° F)	Every nine months
20° to 30° C (68° to 86° F)	Every six months
30° to 40° C (86° to 104° F)	Every three months
40° to 60° C (104° to 113° F)	Every month

- ⚠ • If the dock has no AC power supply, refer to the Installation and Setup Manual to connect the power cable and power on the dock before charging the backup battery. Only those who hold the certificates issued by the local department can carry out above-safety-voltage operation. Pay attention to safety during operation in order to avoid an electric shock. Make sure the cables are correctly connected to the PE, N, and L terminals.
- The backup battery cannot be charged when the temperature is higher than 40° C (104° F) or lower than -25° C (-13° F).

Dock Cover

The internal video transmission antennas and status indicators are located on the dock cover. The Dock Cover Propeller Bumpers on the side edges of the dock cover are used for folding the aircraft propellers when closing the dock cover. The heating strips at the dock cover seam can automatically heat the dock cover to prevent the seam from freezing.

- ⚠ • Make sure the internal video transmission antennas are not blocked by snow, ice, or any foreign objects.
- The dock cover heating strips can only prevent the dock cover seam from freezing. Make sure to clean the snow or ice covered on the surface.
- Regularly check if the propeller bumpers are in good condition. Replace any worn or damaged parts when necessary.

Opening and Closing the Dock Cover

When conducting remote debugging, the dock cover can be opened or closed using DJI FlightHub 2 or the DJI Pilot 2 app to check the aircraft status and the component status inside the dock. The dock cover can also be controlled using the open/close button on the electrical cabinet. Make sure the emergency stop button is released before opening the dock cover. If not, pull out or rotate clockwise to release the emergency stop button.

-
-  • Keep a safe distance from the dock cover to avoid injury when opening or closing the dock cover. Press the Emergency Stop Button if necessary.
 - DO NOT press or place heavy objects on the dock cover after it is opened.
 - The dock cover will be automatically closed when the aircraft battery is too low to avoid over-discharge. The dock cover cannot be closed remotely if the aircraft battery is over-discharged.
-

Using DJI FlightHub 2

Open DJI FlightHub 2 Project page, click  >  > Action, and enable Remote Debugging; or open Devices page, click Dock >  > Device Maintenance, and enable Remote Debugging to open or close the dock cover.

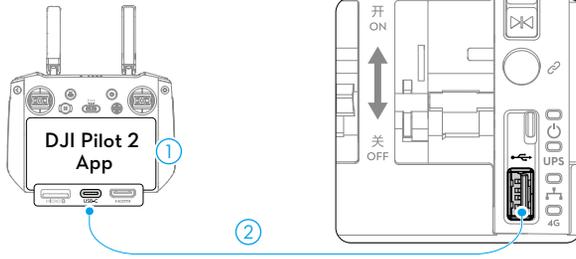
If the dock cannot detect the aircraft, check whether the aircraft is on the landing pad using the dock livestream, and follow the instructions prompted in DJI FlightHub 2. Click Force Close Dock Cover if the aircraft is not on the landing pad. Click Close Dock Cover if the aircraft is on the landing pad.

-
-  • DO NOT click Force Close Dock Cover if the aircraft is on the landing pad. Otherwise, the propellers and the dock cover may be damaged.
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-  • When closing the dock cover, the aircraft will automatically power on, and the propellers will slowly rotate to avoid damage to the propellers.
-

Using DJI Pilot 2

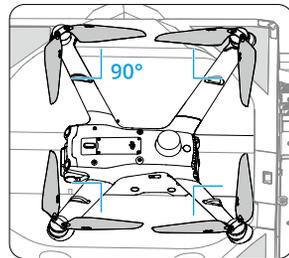
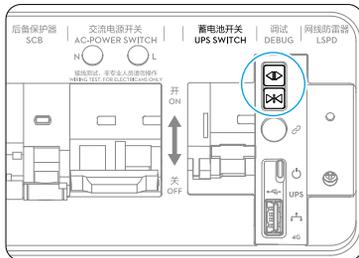
Connect the remote controller to the dock. Run DJI Pilot 2 and tap Open Dock Cover.



Using the Open/Close Button

1. Make sure the dock is powered on, and the dock cover status indicators are blinking.
2. Loosen the screw of the electrical cabinet door using a 2.5 mm Hex Key. Pull to open the electrical cabinet door.
3. Press and hold the open/close button, the dock cover will automatically open/close.

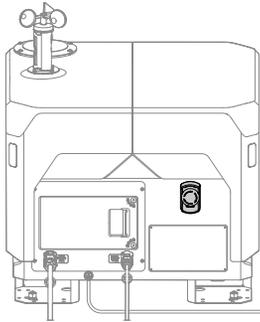
- ⚠ • Make sure there are no obstacles blocking the dock covers. Keep your hands away from the dock cover to avoid injury.
- Before closing the dock covers, make sure to adjust the propeller position as shown in the figure in order to avoid breaking the propellers when closing the dock cover.



Dock Cover Status Indicator and Buzzer Alerts

Normal States		
	Blinks white	The dock functions properly, and the aircraft is standby.
	Blinks blue Short beeps	The dock is linking to the aircraft.
	Blinks green	The aircraft has taken off, and flight task in progress.
 —	Solid blue	Dock firmware updating or debugging (either remote debugging and on-site debugging).
Warning States		
	Blinks red Long beeps	The dock cover is opening/closing; or the aircraft is taking off/landing. ⚠ Keep a safe distance from the dock to avoid injury.
	Blinks red and yellow alternately	Emergency stop button on the dock is pressed.

Emergency Stop Button



The dock features one emergency stop button. In an emergency situation, press the emergency stop button to stop all dock movements when operating or maintaining the dock. The Status Indicators blink red and yellow alternately after pressing the Emergency Stop Button.

If the aircraft is powered on but the motors are not running, the aircraft cannot take off after pressing the Emergency Stop Button. If the Emergency Stop Button is pressed when the aircraft is performing a flight task, the aircraft will fly to the alternate landing site after completing the flight task.

-  • Pull out or rotate the button clockwise to release the Emergency Stop Button before conducting other operations (e.g. dock cover control).

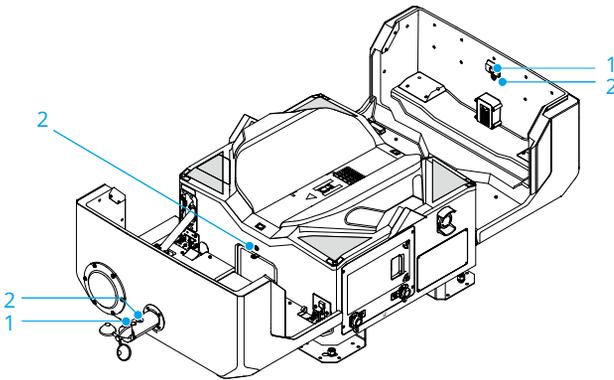
Environmental Monitoring System

DJI Dock integrates multiple environment sensors to provide information on wind speed, rainfall, temperature, and humidity, allowing users to monitor real-time environment condition and ensure safe flight.

Monitoring Camera and Auxiliary Lights

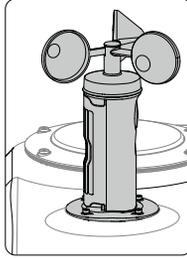
The dock is equipped with two wide cameras and three camera auxiliary lights for monitoring.

1. Wide camera: the integrated security camera is used to monitor the real-time dock environment. Users can remotely view the weather conditions, environmental circumstances, and the aircraft's takeoff and landing situations in the device status window in DJI FlightHub 2.
2. Camera Auxiliary Lights: The auxiliary lights automatically enable at night or in low-light conditions to help the aircraft to identify the positioning marks.



Wind Speed Gauge

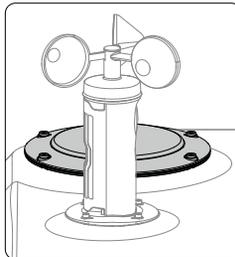
The wind speed gauge is used to measure wind speed near the dock. The wind speed gauge features self-heating and is able to work in low-temperature environments. Users can view real-time wind speed in DJI FlightHub 2. To ensure flight safety, the aircraft cannot take off or land when the wind speed is above 8 m/s.



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- ⚠ • The wind speed gauge can only measure the wind speed near the dock, which is different from the wind speed provided by local meteorological department. If the aircraft ascends to high altitude, the wind speed and direction may change significantly. Fly with caution when the measured wind speed is close to 8 m/s.
-

Rainfall Gauge

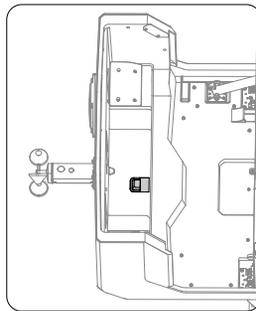
The rainfall gauge is used to measure rainfall information near the dock. The rainfall gauge features self-heating and is able to work in low-temperature environments. Users can view the rainfall information in DJI FlightHub 2. To ensure flight safety, the aircraft cannot take off in heavy rain.



- ⚠ • There is a pressure sensing module in the rainfall gauge. DO NOT press hard on the surface of the rainfall gauge. Otherwise, the pressure sensing module may be damaged.
 - Clean the rainfall gauge surface on a regular basis. Replace the rainfall gauge immediately if it is dented, deformed, or damaged.
 - False detection of rainfall may be triggered if the dock is installed near a vibration source (such as near the railways). Try to keep the dock away from areas with strong vibration sources and strong noise.
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Temperature and Humidity Sensor

The dock features temperature and humidity sensors, which are used to measure external temperature and the temperature and humidity inside the dock. The temperature and humidity sensor is shown in the figure below.



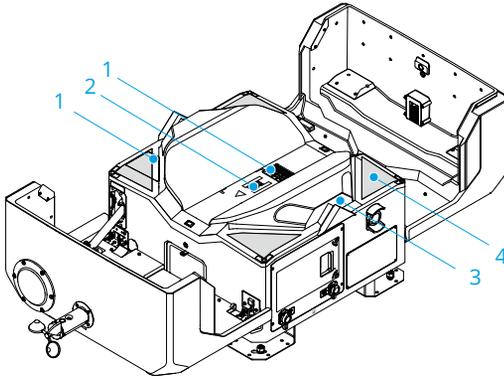
Open the Devices page, click Dock >  and enable Remote Debugging to view the temperature and humidity information.

To ensure flight safety, the aircraft cannot take off when the external temperature is below -20°C (-4°F). Flight tasks will be resumed after the external temperature is higher than -20°C (-4°F).

Water Immersion Sensor

The dock features water immersion sensors, which can be used to detect whether the dock is immersed in water. If DJI FlightHub 2 prompts dock flooding, remove the water immediately and check whether the dock works properly. If the dock fails to work properly, make sure to push the AC power switch and backup battery switch into the off position, and contact DJI Support.

Landing Pad



1. Return Vent and Supply Vent Clean the supply vent and the return vent regularly to remove the dust.
2. Aircraft Orientation Mark: When placing the aircraft on the landing pad, make sure to align the aircraft heading with the aircraft orientation mark. Otherwise, the aircraft may be damaged.
3. RTK module: Make sure the landing pad is clear of obstacles and the internal RTK antennas are not covered. Otherwise, the signals will be obstructed and the positioning performance will be affected.
4. Positioning Marks: There are four positioning marks on the landing pad for the aircraft to identify dock position.

⚠ • DO NOT place any metal objects or electronic devices on the landing pad after the dock is powered on to avoid burns. DO NOT place any metal objects such as rings near the landing pad or touch the landing pad surface when placing the aircraft on the landing pad in order to avoid burns. The dock cannot charge the aircraft battery if metal foreign objects are detected on the landing pad.

Dock RTK

The dock integrates dual RTK modules, provide high-precision data for centimeter-level positioning when used with the DJI Matrice 3D Series aircraft.

Make sure the dock RTK is calibrated before a flight task to ensure accurate flight along the flight route. The dock RTK values are already calibrated using the remote controller during dock deployment, and are not required to be recalibrated if the dock position remains the same. If the dock is moved, the position needs to be recalibrated in DJI Pilot 2 using the remote controller. Refer to the Installation and Setup Manual for details.

The dock supports quick takeoff. The aircraft can directly takeoff and perform flight tasks without waiting for the RTK data to converge. To achieve quick takeoff, users can obtain aircraft control and click Takeoff in the device status, or launch a GPS task in the task plan library.

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-  Quick Takeoff is only available when the dock is connected to the internet, and the network connection is stable.
 - Make sure the landing pad is clear of obstacles or metal objects, and the internal RTK antennas are not covered. Otherwise, the signals will be obstructed and the positioning performance will be affected.
 - When setting the alternate landing site or performing RTK tasks, DO NOT move the dock position, restart the dock, or calibrate the dock position using network RTK.
 - Increased ionospheric activity or scintillation may affect the accuracy of RTK positioning. In this case, it is not recommended to calibrate the dock position.

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-  Users can open DJI FlightHub 2 Project page, click  >  > Action to view the dock RTK status.

Air Conditioning System

The air conditioning system facilitates temperature inside the dock. When the dock is in Idle state, the air conditioning system will automatically adjust the temperature inside the dock, providing a suitable environment for the aircraft and the Intelligent Flight Battery.

When opening the dock cover, the air conditioning system will lower the speed of the inner circulating fan to prevent dust or catkins from entering the return vent.

Users can open the DJI FlightHub 2 Devices page, click Dock >  , and enable Remote Debugging to start heating or cooling.

-
-  To ensure the service life of the TEC air conditioning system, a five-minute interval is required when switching between cooling and heating operations. A countdown will appear in the App. Wait for the countdown to end before switching operations.

Dock Network Connection

The dock can be connected to a wired network or 4G network^[1] for internet access. Users can choose different internet access based on actual needs. When the dock is connected to both a wired network and a 4G network, the 4G network works as a backup to the wired network. The dock will automatically switch to the 4G network if the wired network fails.

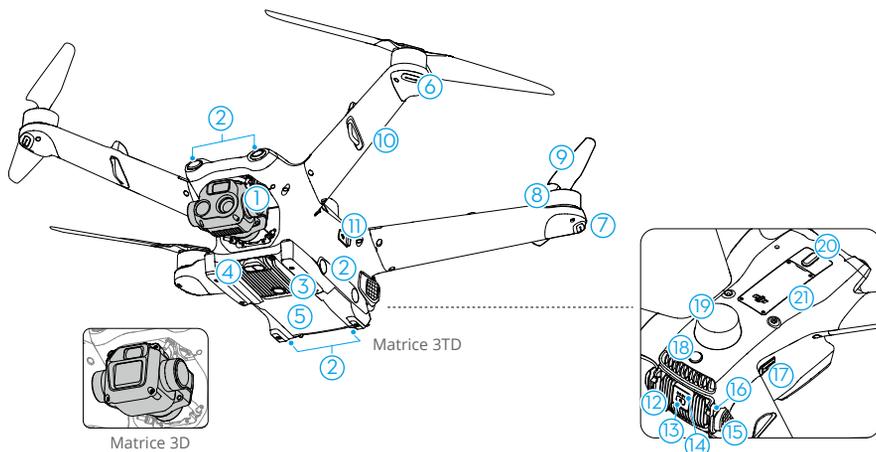
[1] 4G network service is not available in some countries or regions. Please consult your local DJI authorized dealer or DJI Support for more information.

IP Rating of the Dock

1. Under stable laboratory conditions, DJI Dock 2 achieves an IP55 protection rating by IEC 60529 standards when used with DJI Matrice 3D Series aircrafts. The protection rating is not permanent and may lower over an extended period. Maintain the device on a regular basis.
2. The aircraft does not achieve an IP55 protection rating in the following circumstances:
 - The electrical cabinet door is not firmly closed.
 - The mounting screws of the wind speed gauge are not firmly tightened.
 - The dock cover is not firmly closed. (It is abnormal if dock cover has a gap larger than 20 mm)
 - The dock shell is cracked or the waterproof adhesive is aged or damaged.
3. The body surface may become discolored after long-term use. However, such color change does not affect the performance and IP rating of the dock.

Aircraft

Overview



1. Gimbal and Camera
2. Vision System
3. Auxiliary Light
4. Infrared Sensing System
5. Internal Charging Modules
6. Front LEDs
7. Aircraft Status Indicator
8. Motors
9. Propellers
10. Frame Arms (Built-in antennas)
11. USB-C Assistant Port (E-Port Lite)
12. Intelligent Flight Battery
13. Battery Level LEDs
14. Power Button
15. Battery Buckles
16. Battery Locks
17. microSD Card Slot
18. Beacons
19. GNSS Antennas
20. E-Port

[1] Matrice 3D and Matrice 3TD are equipped with different cameras. Refer to the actual product purchased.

- ⚠️ • Contact DJI or a DJI authorized dealer to replace the components of the product if damaged. DO NOT disassemble the product without the assistance of a DJI authorized dealer (except for components allowed to be disassembled by users in this guide), otherwise it will not be covered under warranty.
- The aircraft adopts particle dampers inside the LED covers on the aircraft arm to reduce vibration during flight, ensuring long-time flight safety in different environments. It is normal to hear rustle sound from the particle damper.