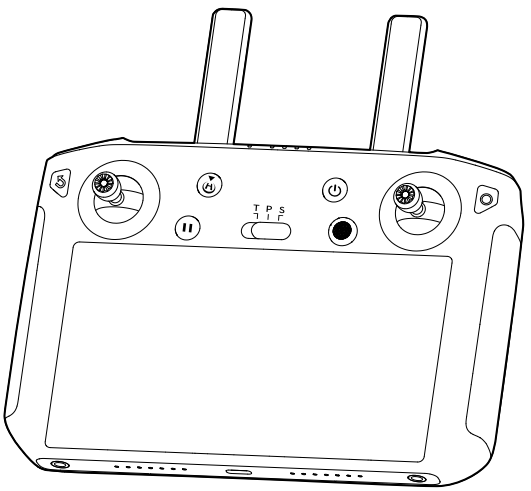
DJI Smart Controller

Quick Start Guide
快速入门指南
快速入門指南
クイックスタートガイド
퀵 스타트 가이드
Kurzanleitung
Guía de inicio rápido
Guide de démarrage rapide
Guida di avvio rapido
Snelstartgids
Guia de início rápido
Guia de Início Rápido
Краткое руководство пользователя

v1.0



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Disclaimer

Congratulations on purchasing your new DJI™ product. The information in this document affects your safety and your legal rights and responsibilities. Read this entire document carefully to ensure proper configuration before use. Failure to read and follow instructions and warnings in this document may result in serious injury to yourself or others, damage to your DJI product, or damage to other objects in the vicinity. This document and all other collateral documents are subject to change at the sole discretion of DJI. Visit www.dji.com for the latest information for this product.

By using this product, you hereby signify that you have read this disclaimer and warning carefully and that you understand and agree to abide by the terms and conditions herein. You agree that you are solely responsible for your own conduct while using this product, and for any consequences thereof. You agree to use this product only for purposes that are proper and in accordance with all applicable laws, rules, and regulations, and all terms, precautions, practices, policies and guidelines DJI has made and may make available. DJI accepts no liability for damage, injury or any legal responsibility incurred directly or indirectly from the use of this product. The user shall observe safe and lawful practices including, but not limited to, those set forth in this document.

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Warning

Always stay alert when using the DJI Smart Controller (hereinafter referred as “Smart Controller”) to control an Unmanned Aerial Vehicle (UAV). Carelessness may result in serious harm to yourself and others. Always download and read the Disclaimer and Safety Guidelines of the aircraft and the Smart Controller’s User Manual before use.

1. Fully charge the Smart Controller before each flight.

2. If the Smart Controller is powered on and has not been used for five minutes, it will sound an alert. After six minutes, it will automatically power off. Move the sticks or perform some other action to cancel the alert.
3. Ensure the antennas are unfolded and adjusted to the proper position to achieve the optimal transmission quality.
4. Contact DJI support to repair or replace the antennas if they are damaged. Damaged antennas will greatly decrease performance.
5. Link the Smart Controller and the aircraft again if you change the aircraft.
6. Ensure to power off the aircraft before the Smart Controller.
7. Fully charge the Smart Controller every three months.
8. Immediately charge the Smart Controller when its power level decreases to 0% to prevent the Smart Controller from damage due to over discharge for an extended period. Discharge the Smart Controller to a power level between 40% and 60% if stored for an extended period.
9. DO NOT cover the air vent or the air intake on the Smart Controller. Otherwise, the Smart Controller may become too hot, which could affect its performance.
10. DO NOT disassemble the Smart Controller without the assistance of a DJI authorized dealer. Always contact DJI or a DJI authorized dealer to replace the Smart Controller's components.

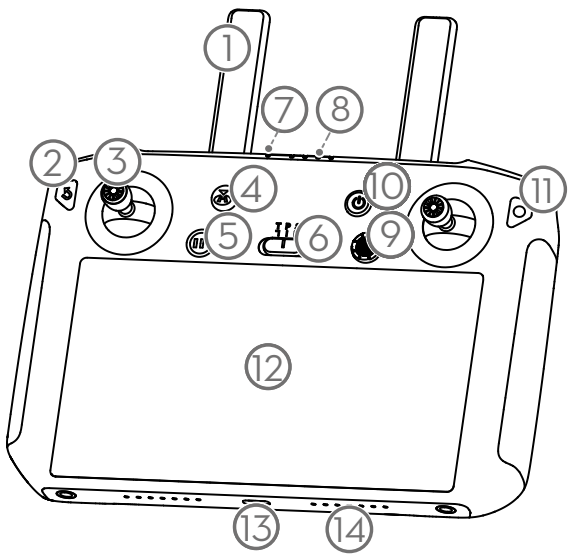
Introduction

The DJI Smart Controller features OCUSYNC™ 2.0 technology, capable of controlling aircraft① that support the technology, and providing a live HD view from the aircraft's camera. It can transmit image data at distances of up to 8 km② and comes with a number of aircraft and gimbal controls as well as some customizable buttons.

The built-in 5.5-inch high brightness 1000 cd/m² screen has a resolution of 1920×1080 pixels, featuring an Android system with multiple functions such as Bluetooth and GNSS. It supports to connect to the Internet via Wi-Fi.

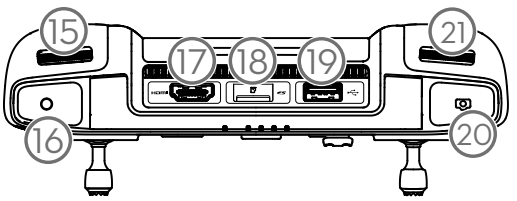
The Smart Controller has a maximum working time of 2.5 hours③.

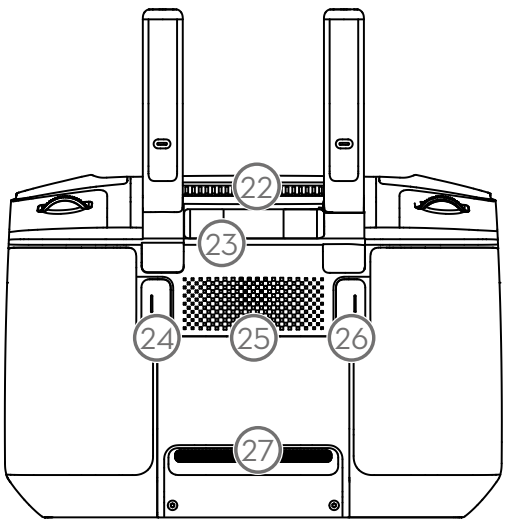
Overview



1. Antennas
2. Back Button / Function Button
3. Sticks
4. RTH Button
5. Flight Pause Button
6. Flight Mode Switch
7. Status LED
8. Battery Level LEDs
9. 5D Button
10. Power Button
11. Confirm Button / Customizable Button C3
12. Touch Screen
13. USB-C Port
14. Microphone

15. Gimbal Dial
16. Record Button
17. HDMI Port
18. MicroSD Card Slot
19. USB-A Port
20. Focus / Shutter Button
21. Camera Setting Dial

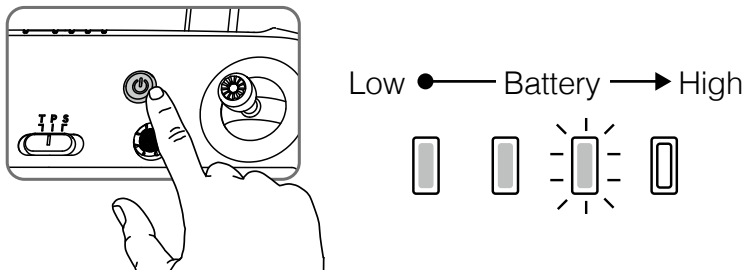




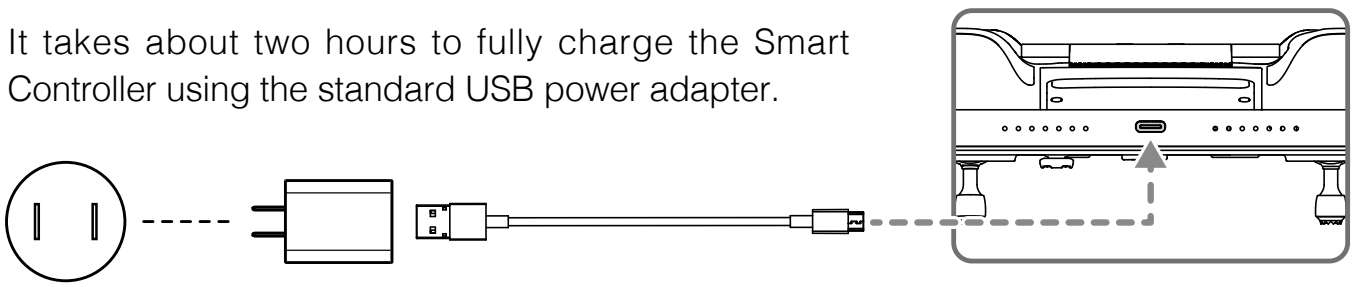
22. Air Vent
23. Sticks Storage Slot④
24. Customizable Button C2
25. Speaker
26. Customizable Button C1
27. Air Intake

1. Battery Level and Charging

Press the power button once to check the battery level.
Press and hold for two seconds or press for a few seconds to power on the Smart Controller.



It takes about two hours to fully charge the Smart Controller using the standard USB power adapter.



Power Outlet
100~240 V

USB
Power Adapter

USB-C Cable

- Please use the official USB power adapter to charge the Smart Controller. When a standard USB power adapter is not available, it is recommended to use an FCC/ CE certified USB power adapter rated 12V/2A.
- Please recharge the battery at least every three months to prevent over discharging - the battery will deplete when stored for an extended period.

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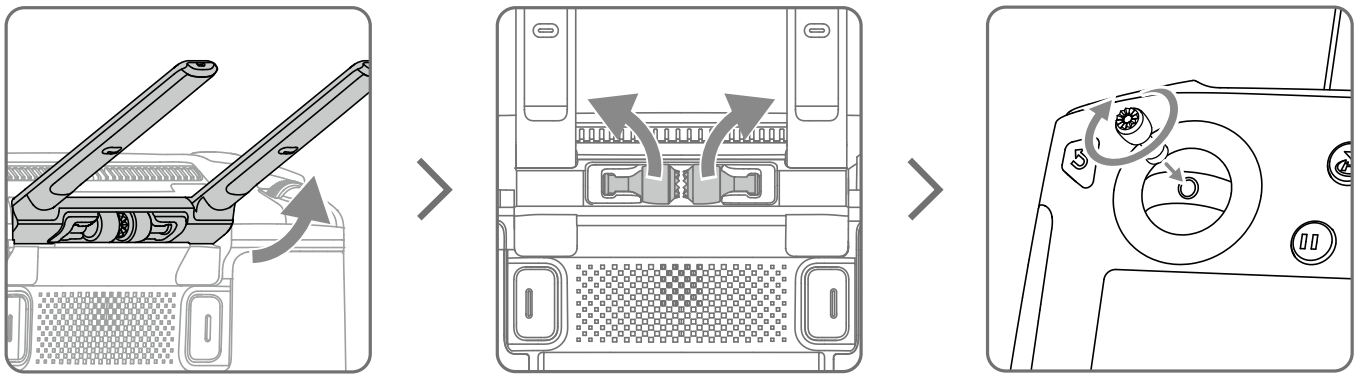
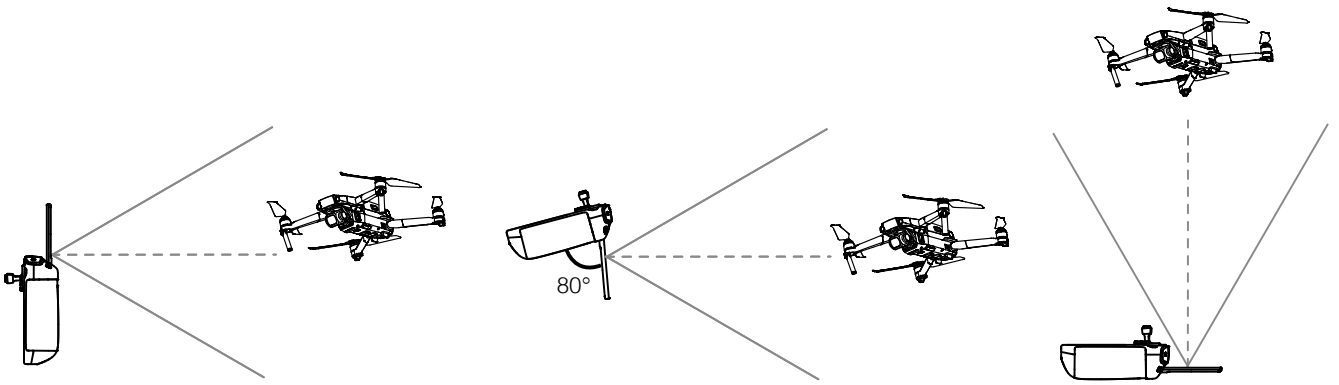
① Please refer to the Specifications for details on supported aircraft.
② The Smart Controller can reach its maximum transmission distance (FCC) in a wide open area with no electromagnetic interference using a MAVIC™ 2 at an altitude of about 100 meters.
③ The maximum working time was tested in a lab environment and is for reference only.
④ A pair of sticks are stocked in the Sticks Storage Slot before delivery. In the illustrations used in the overview section, the sticks have already been mounted on the Smart Controller.

2. Preparing the Smart Controller



Lift the antennas | Remove the sticks | Rotate to attach the sticks



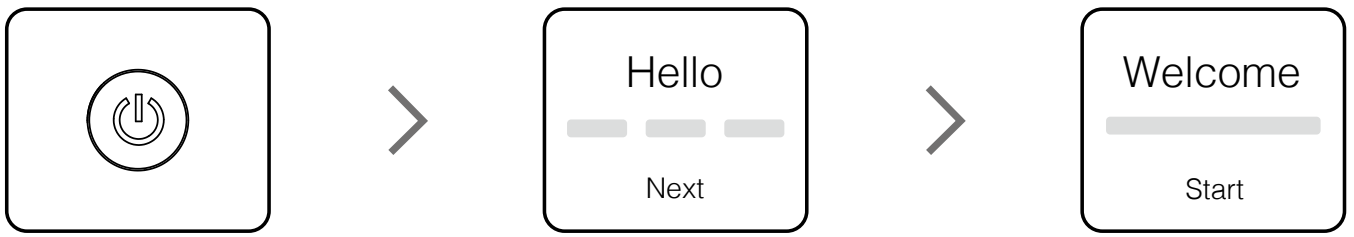
The optimal transmission range is shown above. Ensure the antennas are facing towards the aircraft. When the angle between the antennas and the back of the Smart Controller is 80° or 180°, the connection between the Smart Controller and the aircraft can reach its optimal performance.
The illustrations above show situations where the operator and aircraft are far away.

- Ensure the control sticks are firmly mounted.
- In real operation, the DJI GO™ 4 app will prompt to warn that the transmission signal is weak, and please adjust the antennas to ensure that the aircraft is back to the optimal transmission range.

3. Activating your Smart Controller

Internet

A brand new Smart Controller needs to be activated first. Activation requires an Internet connection.



Power on the Smart Controller

Select a Preferable Language

Follow the Prompts to Activate

Please check the internet connection if activation fails. If the internet connection is normal, please retry to activate the Smart Controller. Contact DJI if activation fails several times over.

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4. Linking

When the Smart Controller is purchased together with an aircraft as a combo, it is already linked to the aircraft. If not, please follow the steps below to link the Smart Controller and the aircraft after successful activation.

1. Power on the Smart Controller and the aircraft.
2. Press down the customizable buttons C1, C2, and the record button simultaneously. The status LED will blink blue and the Smart Controller will sound a double beep to indicate that linking starts.
3. Press the aircraft's linking button and then release. The Smart Controller's status LED will be solid green if linking is successful.

Please refer to the DJI Smart Controller User Manual for more linking methods. To download the manual, please visit http://www.dji.com/dji-smart-controller.

5. Flight

Before taking off, make sure the Aircraft Status Bar in the DJI GO 4 app displays “Ready to Go (GPS)”.

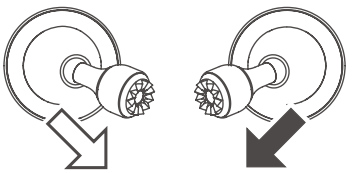
EN

- Auto Takeoff/Landing
  Tap “Auto Takeoff”/ “Auto Landing” in DJI GO 4 to start/stop the motors.

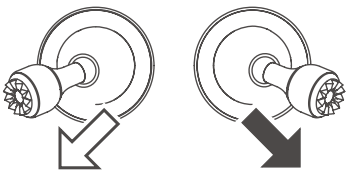
Auto Takeoff

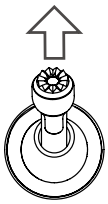
Auto Landing

- Manual Takeoff/Landing
  Combination stick command to start/stop the motors.

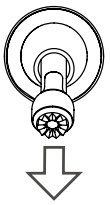


OR



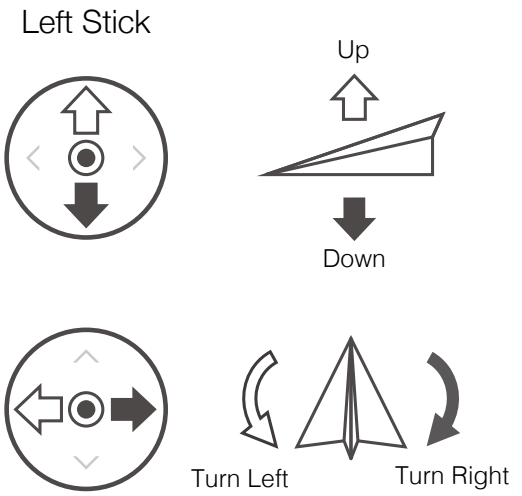


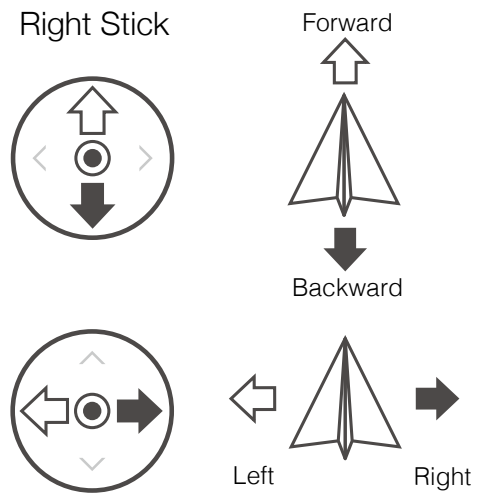
Slowly push the left stick up to take off.



Slowly push the left stick down until the aircraft lands. Hold for a few seconds to stop the motors.

The default flight control is known as Mode 2. The left stick controls the aircraft’s altitude and heading, while the right stick controls its forward, backward, and left and right movements. The gimbal dial controls the camera’s tilt.





- The motors can only be stopped mid-flight when the flight controller detects a critical error.
- Be sure the Smart Controller is linked to the aircraft.

Specifications

Ocusync 2.0	
Operation Frequency Range	2.400-2.4835 GHz; 5.725-5.850 GHz*
Max Transmission Distance (Unobstructed, free of interference)	2.400-2.4835 GHz: 8 km (FCC); 4 km (CE); 4 km (SRRC); 4 km (MIC) 5.725-5.850 GHz: 8 km (FCC); 2 km (CE); 5 km (SRRC)
Transmitter Power (EIRP)	2.400-2.4835 GHz: 25.5 dBm (FCC); 18.5 dBm (CE) 19 dBm (SRRC); 18.5 dBm (MIC) 5.725-5.850 GHz: 25.5 dBm (FCC); 12.5 dBm (CE); 18.5 dBm (SRRC)
Wi-Fi	
Protocol	WiFi Direct, Wi-Fi Display, 802.11a/g/n/ac, WiFi with 2×2 MIMO is supported
Operation Frequency Range	2.400-2.4835 GHz; 5.150-5.250 GHz* 5.725-5.850 GHz*
Transmitter Power (EIRP)	2.400-2.4835 GHz: 21.5 dBm (FCC); 18.5 dBm (CE) 18.5 dBm (SRRC); 20.5 dBm (MIC) 5.150-5.250 GHz: 19 dBm (FCC); 19 dBm (CE) 19 dBm (SRRC); 19 dBm (MIC) 5.725-5.850 GHz: 21 dBm (FCC); 13 dBm (CE); 21 dBm (SRRC)

Bluetooth	
Protocol	Bluetooth 4.2
Operation Frequency Range	2.400-2.4835 GHz
Transmitter Power (EIRP)	4 dBm (FCC); 4 dBm (CE); 4 dBm (SRRC); 4 dBm (MIC)
General	
Battery	18650 Li-ion (5000 mAh @ 7.2 V)
Charge Type	Supports USB power adapters rated 12V/2A
Rated Power	15 W
Storage Capacity	ROM 16 GB + Scalable (MicroSD)
Charge Time	2 hours (Using a USB power adapter rated 12V/2V)
Working Time	2.5 hours
Video Output Port	HDMI Port
Power Supply Current / Voltage (USB-A port)	5 V/ 900 mA
Operation Temperature Range	-4° to 104° F (-20° to 40° C)
Storage Temperature Range	Less than one month: -22° to 140° F (-30° to 60° C) One month to three months: -22° to 113° F (-30° to 45° C) Three months to six months: -22° to 95° F (-30° to 35° C) More than six months: -22° to 77° F (-30° to 25° C)
Charging Temperature Range	41° to 104° F (5°~40° C)
Supported Aircraft Models**	Mavic 2 Pro; Mavic 2 Zoom
GNSS	GPS+GLONASS
Weight	Approx. 630 g
Model	RM500

* Local regulations in some countries prohibit the use of the 5.8 GHz and 5.2 GHz frequencies and in some regions the 5.2 GHz frequency band is only allowed for indoor use.

** The Smart Controller will support more DJI aircrafts in future. Please visit the official website for the latest information.