

INSPIRE 2

Quick Start Guide

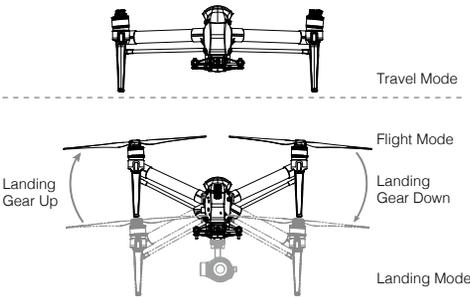
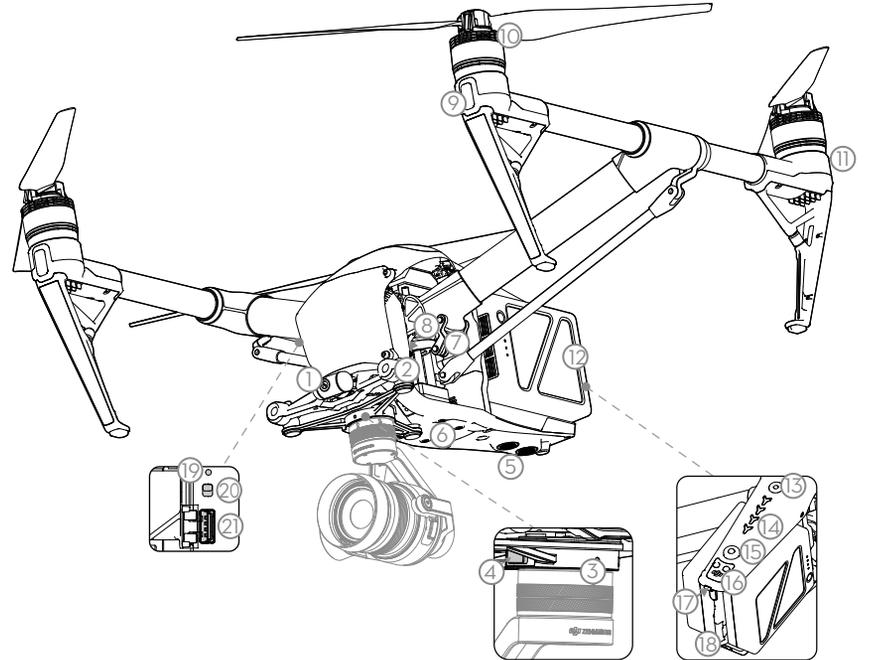
V1.0



Inspire 2

The INSPIRE™ 2 is a powerful aerial film making system with class leading agility and speed, redundancy features for maximum reliability, and new, smart features that make capturing complex shots easy. A new airframe design together with dual batteries boost flight time to 25* minutes.

The camera unit is now independent from image processor so that you have the flexibility to choose the perfect gimbal and camera** system for each of your scenes. This means that regardless of which camera you choose, you have the same powerful processing backing it, and when using the Zenmuse X5S, the ability to capture RAW videos.



- | | |
|--|---|
| 1. FPV Camera | 10. Propulsion System (with Motors, Propellers, etc.) |
| 2. Forward Vision System | 11. Rear LEDs |
| 3. DJI™ Gimbal Connector V2.0 (DGC2.0) | 12. Intelligent Flight Batteries |
| 4. Gimbal and Camera Detach Button | 13. Power Button |
| 5. Downward Vision System | 14. Battery Level Indicators |
| 6. Extended Device Mounting Position | 15. Battery Remove Button |
| 7. Transformation Mechanism | 16. Upward Infrared Sensor |
| 8. Control and Processing Center (with Micro SD Card Slot) | 17. Aircraft Status Indicator |
| 9. Front LEDs | 18. DJI CINESSD™ Slot*** |
| | 19. Linking Button |
| | 20. USB Mode Switch |
| | 21. USB Port |

* Maximum run time is tested in a lab environment. Performance may vary depending on local conditions.

** Gimbal and camera can be purchased separately on the official DJI Online Store.

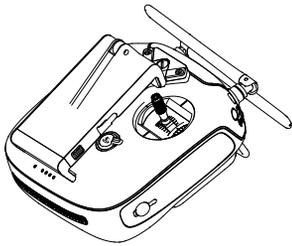
*** Lossless video (in CinemaDNG and ProRes format), and DNG RAW photo burst shooting will be available when DJI CINESSD used. Purchase the DJI CINESSD and DJI CINESSD STATION separately on the official DJI Online Store.

Remote Controller

The Inspire 2 remote controller features DJI's LIGHTBRIDGE™ technology for a maximum transmission distance of up to 4.3 mi (7km)*. While flying the aircraft, you have a live HD view directly within the DJI GO™ 4 app on your paired device for a precise and responsive flying experience. When in dual remote controller mode, each of the two remote controllers separately control aircraft and camera and can be up to 328 feet (100m) apart.

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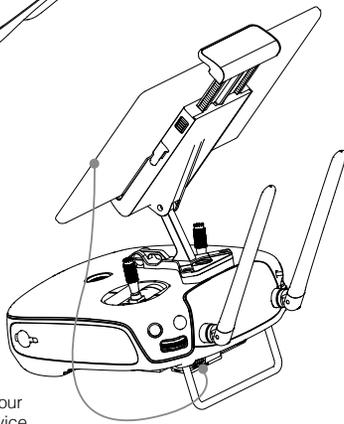
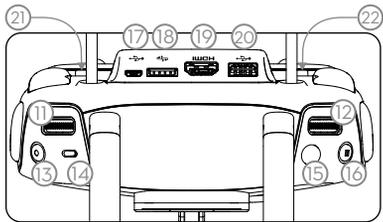
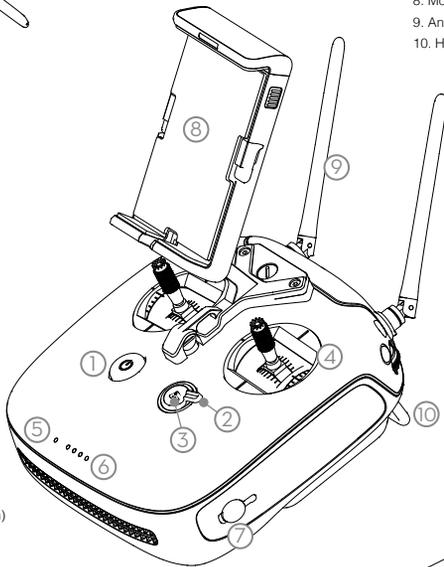
The maximum run-time of the remote controller's LiPo battery is approx. four hours**.



Folded

- 11. Control Dial (Gimbal/FPV/Zoom)
- 12. Camera Settings Dial
- 13. Record Button
- 14. Flight Mode Switch
- 15. Shutter Button
- 16. Pause Button
- 17. Micro USB Port
- 18. CAN Bus (Extended Port)
- 19. HDMI A Port (for Video Output)
- 20. USB Port (for Mobile Device Connection)
- 21. C1 Button
- 22. C2 Button

- 1. Power Button
- 2. Transformation Switch
- 3. Return-to-Home (RTH) Button
- 4. Control Sticks
- 5. Status LED
- 6. Battery Level LEDs
- 7. Power Port
- 8. Mobile Device Holder
- 9. Antennas
- 10. Handle Bar



Connect your mobile device

* The remote controller is able to reach its maximum transmission distance (FCC) in a wide open area with no Electro-Magnetic interference, and at an altitude of about 400 feet (120 meters).

** The maximum run-time is tested without supplying power to a smart device.

Basic Knowledge

• Fly Safe

DJI encourages you to enjoy flying in a safe, responsible and smart way.



DO NOT FLY near or above people, near trees, power lines or buildings.



DO MONITOR YOUR ALTITUDE and fly under 400 feet (120 meters).



It is important to understand basic flight guidelines for the safety of both you and those around you. Refer to the Disclaimer and Safety Guidelines for more information.



DO NOT FLY in rain, snow, fog, and wind speeds exceeding 22 mph or 10 m/s.



DO MAINTAIN LINE OF SIGHT and avoid flying behind buildings or obstacles that block your view.



No Fly Zones

Learn more:
<http://www.dji.com/flysafe>



- Be very careful when flying at high altitude as aircraft performance may be reduced. It is recommended to use a specially-designed propeller when flying at high altitude.
- The compass and GPS will not work in Polar Regions. The aircraft will auto switch to A-mode and use the Vision System for positioning.

• Flight Mode

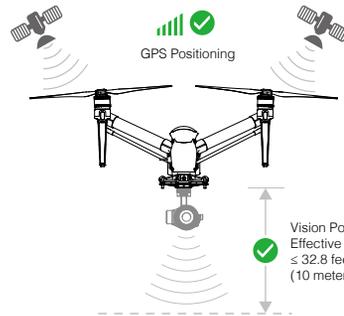
P-mode (Positioning): P-mode works best when the GPS signal is strong. The aircraft utilizes the GPS and Vision System to automatically stabilize itself, navigate between obstacles or track a moving object. Advanced features such as TapFly™ and ActiveTrack™ are enabled in this mode.

S-mode (Sport): The handling gain values of the aircraft are adjusted in order to enhance the maneuverability of the aircraft in S-mode. Note that the Vision System is disabled in this mode.

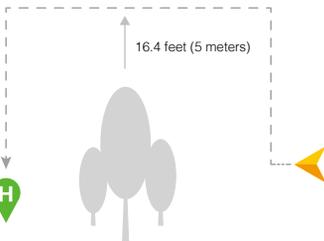
A-mode (Attitude): When neither the GPS nor the Vision System is available, the aircraft will only use its barometer for positioning to control the altitude.



Toggle the flight mode switch on the remote controller to 'P' and wait for a stable satellite count before takeoff.



- S-mode and A-mode should be enabled in the DJI GO 4 app.
- The Downward Vision System will not work properly over surfaces that do not have pattern variations, over water or in low light conditions (< 15 lux).



The Forward Vision System will work properly over surfaces with a clear pattern and adequate lighting (lux > 15).

• Return-to-Home

It is important to take off with a strong GPS signal (GPS icon is followed by at least four bars) to ensure that the Home Point is recorded by the aircraft. The aircraft will automatically return to the Home Point in the following cases.

Smart RTH: The pilot presses the RTH button.

Low Battery RTH: The battery level is low or critically low.

Failsafe RTH: Remote controller signal is lost.

The aircraft can sense obstacles at a distance up to 200 meters, then automatically avoid obstacle and fly to the Home Point.

Using Inspire 2

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1. Download the DJI GO 4 App

Search 'DJI GO 4' on the App Store or Google Play and download the app to your mobile device.



DJI GO 4 App

2. Watch the Tutorial Videos

Watch the tutorial videos at www.dji.com or in the DJI GO 4 app.



Tutorial Videos



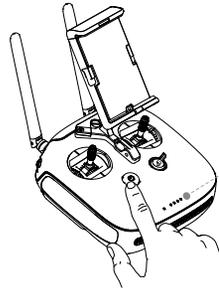
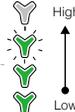
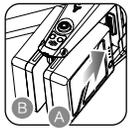
First-time activation requires your DJI account and internet connection.



DJI GO 4 app supports iOS 9 (or later) or Android 4.4 (or later).

3. Check the Battery Levels and Power on

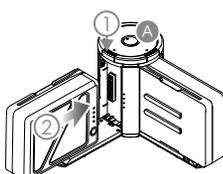
- Press once to check the battery level.
- Press once, again and hold to turn on/off.



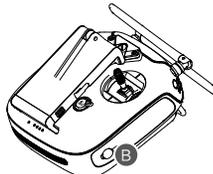
Only use battery slot A when using one battery to supply power.

4. Charge the Batteries

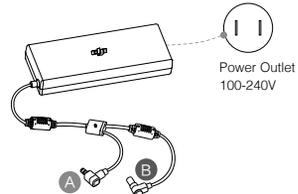
- Press the release button and open the corresponding charging port cover.
- Insert the Intelligent Flight Battery into the charging port to begin charging.



Charging Time: 1.5 hours*



Charging Time: 3 hours*



Power Outlet
100-240V

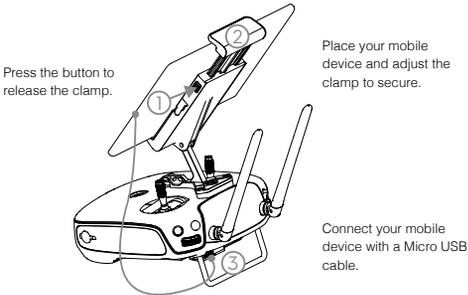
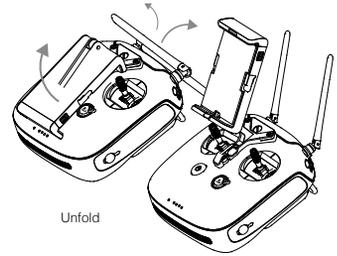
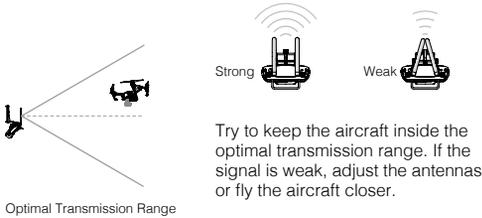


- The Intelligent Flight Battery must be fully charged before using it for the first time. Make sure to press the release button on the Charging Hub's top when removing the fully charged battery.
- Only use the official DJI charger and Charging Hub with your Intelligent Flight Battery and remote controller.
- When charging is complete, the LED lights on the Intelligent Flight Battery will turn off, and the LED on the Charging Hub will show green.
- Power off the remote controller before charging. When charging is complete, the LED lights on the remote controller will turn off.
- The Charging Hub will sound a signal when the battery has been fully charged. The sound can be turned on or off by toggling the switch under the hub.
- Press the button on the battery once to check the battery level.
- Install the battery to the aircraft and power on. Once the battery temperature is lower than 15°C, it will auto heat to maintain a temperature between 15-20°C.
- Pairing batteries is recommended. This can be done inside DJI GO 4 app. Ensure each battery pair is charged and discharged simultaneously to prolong their service life and for a better flight experience.

* Provided charger

5. Prepare the Remote Controller

Unfold the mobile device holder and the antennas.



Dual Remote Controllers

You are required to link the Master and Slave remote controllers.

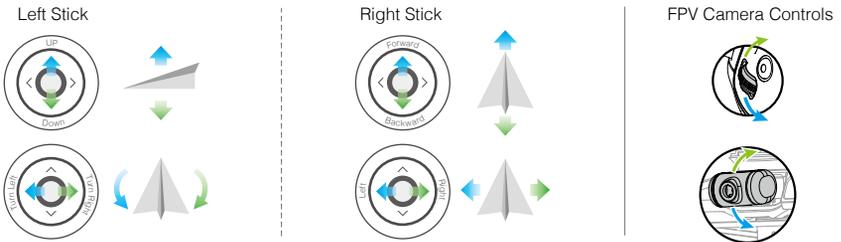
Regarding the Master RC, launch the DJI GO 4 app and enter GO FLY. Tap on the top of your screen to enter the RC Settings. Set the RC Status as 'Master', and then enter the desired connection password.

Repeat to set Slave RC Status to 'Slave'. Then tap Search for Master RC and connect to the Master RC with your preset password.

- Dual frequency support makes the HD video downlink more stable. Note that the Russian only have the 2.4G frequency.
- DO NOT operate more than 3 aircrafts within the same area (size equivalent to a soccer field) to prevent transmission interference.

6. Controls

The stick mode is set to Mode 2 by default (left hand throttle). The left stick controls the aircraft's elevation and heading. The right stick controls the aircraft's forward, backward and lateral movements. To adjust the FPV camera, press and hold the C2 Button and rotate the control dial.



- You can change the stick mode in the DJI GO 4 app.



Remote Controller Status Indicator

- RC normal but not connected to aircraft.
- RC normal and connected to aircraft.
- RC Slave Mode and not connected to aircraft.
- RC Slave Mode and connected to aircraft.
- (B...) Low battery warning / RC error.
- (B—...) RC idle for 5 minutes.

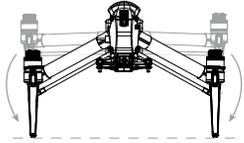
7. Prepare the Aircraft



Insert the battery pair



Press the power button a minimum of five times



Unfold the landing gear to Landing Mode and power on



- Keep your hands away from the transformation mechanism when unfolding the landing gear.
- Press the power button at least five times can transform the aircraft to Travel Mode again.
- Make sure to press the battery remove button when removing the battery.

8. Mount the Gimbal and Camera



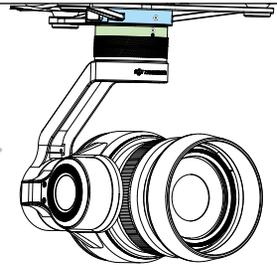
Press the gimbal detach button to remove the cover.



Align the white and red dots and insert the gimbal.



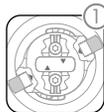
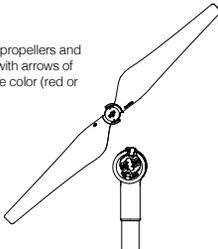
Rotate the gimbal lock to the locked position.



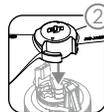
- Always power off the aircraft before mounting or removing the gimbal. Be sure to remove the gimbal before transforming the aircraft to Travel Mode.
- Make sure to press down the gimbal detach button when rotating the gimbal lock to remove the gimbal and camera. The gimbal lock should be fully rotated when removing the gimbal for the next installation.

9. Prepare for Takeoff

Pair the propellers and motors with arrows of the same color (red or white).



Press down the shrapnel and rotate the propeller lock until the arrows are aligned and you hear a click.



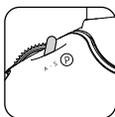
Attach the propeller onto the motor.



Again, rotate the propeller lock until you hear a click.



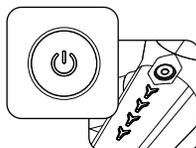
Make sure to press down the shrapnel before rotating the propeller lock.



Toggle the flight mode switch to the safest P-mode.



Connect your mobile device.



Power on the remote controller and the aircraft.



Launch the DJI GO 4 app and tap GO FLY.

10. Flight

Ready to Go (GPS)

Before taking off, ensure that the Aircraft Status Bar in the DJI GO 4 app indicates 'Ready to Go (GPS)' or 'Ready to Go (Vision)' in flying indoors.

In the DJI GO 4 App



Auto Takeoff

The aircraft will take off and hover at an altitude of 4 feet (1.2 meters).



Auto Landing

The aircraft will land vertically and stop its motors.



Return-to-Home (RTH)

Brings the aircraft back to the Home Point. Tap again to stop the procedure.



Gimbal Working Modes

Includes Tracking Mode, Free Mode and Reset Mode.



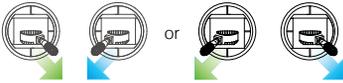
More Intelligent Flight Modes

Tap to use TapFly (P-mode), ActiveTrack (P-mode) and more.

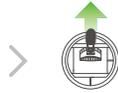


- Watch the tutorial in the DJI GO 4 app or on the official DJI website to learn more.
- Always set an appropriate RTH altitude before takeoff. Refer to the Disclaimer and Safety Guidelines for more details.

Manual Takeoff



Combination Stick Command to start/stop the motors



Left stick up (slowly) to take off

Return-to-Home (RC)



Same as the RTH button in the DJI GO 4 app. Brings the aircraft back to the Home Point. Press and hold to initiate the RTH procedure. Press again to cancel.

Determine RTH status by sound:

- **Single beep...** Request to return, but not receive the respond from the aircraft yet.
- **Double beep...** RTH in progress.



- Rotating propellers can be dangerous. DO NOT start the motors in narrow spaces or when there are people nearby.
- Always keep your hands on the remote controller so long as the motor is still spinning.
- After landing, power off the aircraft before turning off the remote controller.
- Take off from a flat surface in a wide open space, with the rear of the aircraft facing towards you.
- Intelligent landing gear will automatically raise after takeoff and lower when landing. They can also be controlled manually Using the Transformation Switch.
- The aircraft will not be able to land if the landing gear does not lower.

Manual Landing

1. Ensure the landing gear is lowered before landing.



Raise

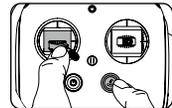


Lower

2. Pull left stick down (slowly) until you touch the ground. Hold a few seconds to stop the motors.



Stop motor mid-flight: Press the RTH button while simultaneously pulling the left stick to the bottom inside corner and hold for 3 seconds. Only stop motors mid-flight in emergency situations when doing so can reduce the risk of damage or injury.



Aircraft Status Indicator

... Ready to go (GPS working).

... Vision System on, GPS off or unavailable.

... P-ATTI or ATTI mode.

... Not connected to remote controller.

... Low battery warning.

... Critically low battery warning.

... Critical error.

... Compass calibration required.

Specifications

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● Aircraft (Model: T650)

Weight	7.25 lbs (3290 g, including two batteries, without gimbal and camera)
Diagonal Distance (propeller excluded)	18 inch (605 mm, Landing Mode)
Max Takeoff Weight	8.82 lbs (4000 g)
Max Takeoff Sea Level	1.55 mi (2500 m); 3.1 mi (5000 m with specially-designed propeller)
Max Flight Time	Approx. 25 min (with Zenmuse X5S)
Max Tilt Angle	P-mode: 35° (Forward Vision System enabled: 25°); A-mode: 35°; S-mode: 40°
Max Ascent Speed	P-mode/A-mode: 16.4 ft/s (5 m/s); S-mode: 19.7 ft/s (6 m/s)
Max Descent Speed	Vertical: 13.1 ft/s (4 m/s); Tilt: 13.1-29.5 ft/s (4-9 m/s) Default tilt is 13.1 ft/s (4 m/s), can be set in-app.
GPS Hovering Accuracy	Vertical: ±1.64 feet (0.5 m) or ±0.33 feet (0.1 m, Downward Vision System enabled) Horizontal: ±4.92 feet (1.5 m) or ±0.98 feet (0.3 m, Downward Vision System enabled)
Operating Temperature	-4° to 104° F (-20° to 40° C)

● Gimbal

Angular Vibration Range	±0.01°
Controllable Range	Pitch: -130° to +40°; Roll: ±20°; Pan: ±320°
Max Controllable Speed	Pitch: 90°/s; Roll: 90°/s; Pan: 90°/s
Interface Type	DGC2.0

● Downward Vision System

Velocity Range	<32.8 ft/s (10 m/s) at height of 6.56 feet (2 m)
Altitude Range	<32.8 feet (10 m)
Operating Range	<32.8 feet (10 m)
Operating Environment	Surfaces with clear patterns and adequate lighting (> 15 lux)
Ultrasonic Sensor Operating Range	0.33-16.4 feet (10-500 cm)
Ultrasonic Sensor Operating Environment	Non-absorbing material, rigid surface (thick indoor carpeting will reduce performance)

● Forward Vision System

Obstacle Sensing Range	2.3-98.4 feet (0.7-30 m)
FOV	Horizontal: 60°; Vertical: 54°
Operating Environment	Surfaces with clear patterns and adequate lighting (> 15 lux)

● Upward Infrared Sensing System

Obstacle Sensing Range	0-16.4 feet (0-5 m)
FOV	±5°
Operating Environment	Large, diffuse and reflective obstacles (reflectivity > 10%)

● Remote Controller

Operating Frequency	2.400-2.483 GHz; 5.725-5.825 GHz
Max Transmitting Distance	2.4 GHz: 4.3 miles (7 km, FCC); 2.2 miles (3.5 km, CE); 2.5 miles (4 km, SRRC)
(unobstructed, free of interference)	5.8 GHz: 4.3 miles (7 km, FCC); 1.2 miles (2 km, CE); 3.1 miles (5 km, SRRC)
EIRP	2.4 GHz: 26 dBm (FCC); 17 dBm (CE); 20 dBm (SRRC) 5.8 GHz: 28 dBm (FCC); 14 dBm (CE); 20 dBm (SRRC)
Battery	6000mAh 2S LiPo
Output Power	Output Power: 9W (Without supplying power to smart device)
USB Supply Power	iOS: 1 A @ 5.2 V (Max); Android: 1.5 A @ 5.2 V (Max)
Operating Temperature	-4° to 104° F (-20° to 40° C)

● Charger (Model: IN2C180)

Voltage	26.1 V
Rated Power	180 W

● Intelligent Flight Battery (Model: TB50-4280mAh-22.8V)

Capacity	4280 mAh
Voltage	22.8 V
Battery Type	LiPo 6S
Energy	97.58 Wh
Net Weight	515 g
Charging Temperature	41° to 104° F (5° to 40° C)
Operating Temperature	-4° to 104° F (-20° to 40° C)
Max Charging Power	180 W

● Charging Hub (Model: IN2CH)

Input Voltage	26.1 V
Input Current	6.9 A



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Download the detailed user manual at:

www.dji.com/inspire-2

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