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.

* 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.

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

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

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

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

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.

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).

● 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.

The Forward Vision System will work properly over surfaces with a clear pattern and adequate lighting (lux > 15).
Using Inspire 2

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.

2. Watch the Tutorial Videos

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

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*

• 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.

**Optimal Transmission Range**

Try to keep the aircraft inside the optimal transmission range. If the signal is weak, adjust the antennas or fly the aircraft closer.

**Connect your mobile device with a Micro USB cable.**

**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.

**Remote Controller Status Indicator**

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

You can change the stick mode in the DJI GO 4 app.
7. Prepare the Aircraft

- 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

- 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

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

DJI GO 4 App
10. Flight

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

Manual Landing
1. Ensure the landing gear is lowered before landing.

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.

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.

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.
## Specifications

### 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**: Approx. 25 min (with Zenmuse X5S)
- **Max Flight Time**: P-mode: 25°; A-mode: 16.4 ft/s (5 m/s); S-mode: 19.7 ft/s (6 m/s)
- **Max Ascent Speed**: Vertical: 13.1 ft/s (4 m/s); Tilt: 13.1-29.5 ft/s (4-9 m/s)
- **Max Descent Speed**: Vertical: ±1.64 feet (0.5 m) or ±0.33 feet (0.1 m, Downward Vision System enabled)
- **GPS Hovering Accuracy**: Vertical: ±1.64 feet (0.5 m) or ±0.33 feet (0.1 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

### 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)
- **EIRP**: 5.8 GHz: 4.3 miles (7 km, FCC); 1.2 miles (2 km, CE); 3.1 miles (5 km, SRRC)
- **Battery**: 2.4 GHz: 26 dBm (FCC); 17 dBm (CE); 20 dBm (SRRC)
- **Operation 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**: 97.55 Wh
- **Net Weight**: 515 g
- **Charging Temperature**: 41° to 104° F (5° to 40° C)
- **Max Charging Power**: 180 W

### Charging Hub (Model: IN2CH)

- **Input Voltage**: 26.1 V
- **Input Current**: 6.9 A

Download the detailed user manual at: [www.dji.com/inspire-2](http://www.dji.com/inspire-2)

※ This content is subject to change without prior notice.