



DJI Inspire 2

DJI Inspire 2 The Inspire 1 was a revelation. The first filmmaking drone in the world to integrate an HD video transmission system, 360° rotating gimbal and a 4K camera, as well as the simplicity of app control. The Inspire 2 takes everything that was good about the Inspire 1 and improves it.

Features:

- The image processing system CineCore2.0 has been upgraded to CineCore2.1, recording video at up to 6K in CinemaDNG/RAW and 5.2K in Apple ProRes when used with Zenmuse X7 camera.
- It goes from 0 to 50 mph (80 kph) in just 5 seconds and hits a maximum speed of 58 mph (94 kph) and has a max descent speed of 9m/s for unheard of speed and agility in an aircraft this size.
- A dual battery system prolongs the flight time to a maximum of 27 minutes (with an X4S), while self-heating technology allows it to fly even in low temperatures.
- Flight Autonomy has been revised and developed specifically for the Inspire 2, providing two directions of obstacle avoidance and sensor redundancy. Increased intelligence adds multiple intelligent flight modes, including Spotlight Pro, giving even single pilots the ability to create complex, dramatic shots.
- An upgraded video transmission system is now capable of dual signal frequency and dual channel, streaming video from an onboard FPV camera and the main camera simultaneously, for better pilot and camera operator collaboration.

DJI Inspire 2 Obstacle Detection

The Inspire 2 can detect obstacles up to 100 feet (30 meters) ahead using its vision system, while flying at or below 34 mph (54 km/h) and at a controllable attitude angle of 25°. The Inspire 2 also has upward facing infrared sensors scanning for obstacles 16 feet (5 meters) above, adding protection when flying in enclosed spaces or under bridges etc. These obstacle sensing systems are active during normal flight, Return-To-Home and all Intelligent Flight Modes. These sensors are core components of the DJI Flight autonomy system, which brings the below intelligent features to the Inspire 2.

DJI Inspire 2 Spotlight Pro Intelligent Modes

Spotlight Pro is a tracking mode, which allows single pilots to capture complex, dramatic images. It uses advanced visual tracking algorithms to lock onto a subject during flight, no matter which direction the Inspire 2 flies, creating shots, which require a dedicated camera operator without this intelligent flight mode. If the gimbal comes close to reaching its rotation limits, the Inspire 2 itself will rotate in the same direction without affecting flight control. The Inspire 2 Spotlight Pro has two shooting modes, which are *Quick Mode* and *Composition Mode*. In *Quick Mode*, select an object to begin tracking. In *Composition Mode*, select the subject and the tracking position. When the subject enters the preset tracking position, press the shortcut to begin tracking. The gimbal can be moved during shooting for composition adjustments. Spotlight Pro is available in Intelligent Flight Modes TapFly, Waypoint, and Point of Interest.

DJI Inspire 2 TapFly Intelligent Flight Mode

The 2 axis onboard FPV camera separates the flight view from the main camera view, giving the Inspire 2 a dedicated TapFly camera. Tap a point onscreen in the FPV view to set a flight route and the Inspire 2 will automatically fly along the route, leaving the pilot to focus on gimbal movement and filming.

DJI Inspire 2 ActiveTrack Intelligent Flight Mode

The Inspire 2 ActiveTrack Mode allows the Inspire 2 to recognize a range of objects, from people to bikes to cars and boats. Tracking profiles can be adjusted based on the subject being tracked meaning greater tracking precision.

DJI Inspire 2 Smart Return To Home Safety Mode

At takeoff, the Inspire 2 records its home point coordinates. Then if there is a loss of GPS signal, loss of transmission to the remote control, low battery or errors, the Inspire 2 will enter Return-To-Home mode. Forward and downward vision systems allow the Inspire 2 to create a real-time map of its flight route as it flies. If the video transmission system signal is lost and Smart Return Home is enabled, it is able to fly home along its original route, and change to a straight line when it regains a signal. As it returns, it will use the primary camera to identify obstacles as far as 656 feet (200 meters) in front, allowing it to plan a safe route home. It is also able to reconnect more quickly after losing connection.

DJI Inspire 2 Dual Systems For Superb Reliability

The Inspire 2 had added new redundancy for extra reliability. DJI have further enhanced the reliability of the Inspire 2 by adding dual IMU, dual barometer and dual batteries. The intelligent flight control system monitors the redundancy system, giving it accurate flight data. Dual batteries mean that if a problem occurs on one battery the other is able to continue flying long enough for a safe landing. At the same time, the Inspire 2 propulsion system is driven a [PWM signal](#) with serial port signal redundancy so that if PWM signals are lost, transmission will continue through the serial port. This propulsion system has been tested for thousands of hours to ensure reliability, when combined with key sensors and a dual-battery design, overall flight reliability is significantly enhanced.

DJI Inspire 2 Satellite Connectivity

DJI use both GPS and GLONASS for satellite navigation giving stronger signal. ●

DATASHEET

DJI INSPIRE 2



AIRCRAFT
Model T650A
Weight 7.58 lbs (3440 g, including propellers and two batteries, without gimbal and camera)
Max Takeoff Weight 9.37lbs (4250 g)
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)
Max Angular Velocity Pitch: $300^\circ/s$
Yaw: $150^\circ/s$
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)
Max Takeoff Sea Level 1.55 mi (2500 m)
3.1 mi (5000 m with specially-designed propeller)
Max Wind Speed Resistance 10 m/s
Max Flight Time Approx. 27min (with Zenmuse X4S)
Approx. 23min (with Zenmuse X7) (Hovering at sea level with no wind.)
Motor Model DJI 3512
Propeller Model DJI 1550T
Indoor Hovering Enabled by default
Operating Temperature -4° to 104° F (-20° to 40° C)
Diagonal Distance(propeller excluded) 23.8 inch (605 mm, Landing Mode)
Max Speed 58 mph or 94 kph(Sport mode)

GIMBAL
Model ZENMUSE X7, ZENMUSE X5S, ZENMUSE X4S(optional)
Angular Vibration Range $\pm 0.01^\circ$
Controllable Range Pitch: -130° to $+40^\circ$
Roll: $\pm 20^\circ$
Pan: $\pm 320^\circ$
Max Controllable Speed Pitch: $180^\circ/s$
Roll: $180^\circ/s$
Pan: $270^\circ/s$
Interface Type Detachable
Mechanical Range Pitch: -140° to $+50^\circ$
Roll: -50° to $+90^\circ$
Pan: $\pm 330^\circ$

CHARGER

Model IN2C180
Voltage 26.1 V
Rated Power 180 W
CHARGING HUB
Model IN2CH
Input Voltage 26.1 V
Input Current 6.9 A

REMOTE CONTROLLER

Model GL6D10A
Operating Frequency 2.400-2.483 GHz
5.725-5.850 GHz
Max Transmitting Distance(unobstructed, free of interference)
2.4 GHz:
FCC: 4.3 miles (7 km);
CE: 2.2 miles (3.5 km);
SRRC: 2.5 miles (4 km);
MIC: 2.5 miles (4 km);
5.8 GHz:
FCC: 4.3 miles (7 km);
CE: 1.2 miles (2 km);
SRRC: 3.1 miles (5 km);
MIC: - ;
EIRP 2.4 GHz:
FCC: 26 dBm;
CE: 17 dBm;
SRRC: 20 dBm;
MIC: 17dBm;
5.8 GHz:
FCC: 28 dBm;
CE: 14 dBm;
SRRC: 20 dBm;
MIC: - ;
Video Output Ports USB, HDMI
Power Supply Built-in battery
Charging DJI charger
Dual User Capability Host-and-Slave connection
Mobile Device Holder Tablet or Smart Phone
Max Mobile Device Width 170 mm
Output Power 9 W (Without supplying power to smart device)
Operating Temperature -4° to 104° F (-20° to 40° C)
Storage Temperature Less than 3 months: -4° to 113° F (-20° to 45° C)
More than 3 months: 72° to 82° F (22° to 28° C)
Charging Temperature 32° to 104° F (0° to 40° C)
Battery 6000mAh 2S LiPo
USB Supply Power iOS: 1 A @ 5.2 V (Max); Android: 1.5 A @ 5.2 V (Max)

BATTERY (STANDARD)

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)

APP

Name DJI GO 4



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