# PHANTOM 4 PRO V2.0

## Quick Start Guide

V1.0





## Phantom 4 Pro V2.0

The DJI PHANTOM<sup>™</sup> 4 Pro V2.0 is a smart prosumer flying camera capable of shooting 4K video at 60 fps and at up to 100 Mbps, and capturing 20 megapixel stills. 4 directions of obstacle avoidance allow it to intelligently avoid obstacles during flight. Using TapFly<sup>™</sup> and ActiveTrack<sup>™</sup> through the DJI GO<sup>™</sup> 4 app, you can fly anywhere visible on your screen or track a moving subject smoothly and easily with a simple tap. The camera uses a 1-inch CMOS sensor offering unprecedented clarity, lower noise, and better quality images.

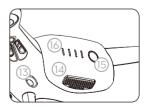
In addition to the above features, improved propulsion system efficiency means aircraft noise is 4dB (60%) lower than on the Phantom 4 Pro V2.0.



- 1. Gimbal and Camera
- 2. Downward Vision System\*
- 3. Micro USB Port
- Camera/Linking Status Indicator and Link Button
- 5. Camera Micro SD Card Slot
- 6. Forward Vision System
- 7. Infrared Sensing System\*
- 8. Front LEDs

#### 9. Motors

- 10. Propellers
- 11. Aircraft Status Indicators
- 12. Antennas
- 13. Rear Vision System
- 14. Intelligent Flight Battery
- 15. Power Button
- 16. Battery Level Indicators

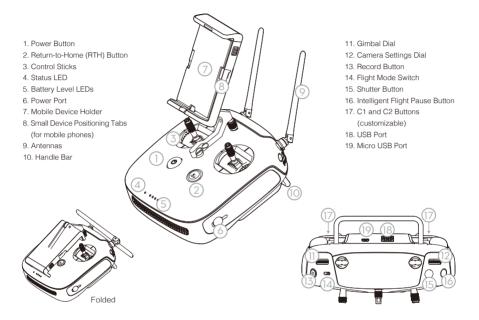


\* The Vision and Infrared Sensing Systems are affected by surrounding conditions. Read the Disclaimer and Safety Guidelines and watch the tutorials in the DJI GO 4 app or on the official DJI website to learn more. http://www.dji.com/phantom-4-pro-v2

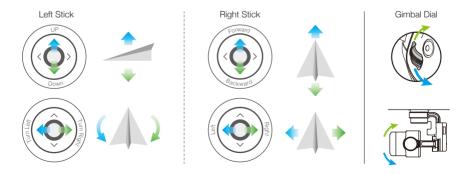
## **Remote Controller**

The powerful remote controller of the Phantom 4 Pro V2.0 has a transmission range extending up to 4.3 mi (7 km)\*. It features physical buttons and dials to control exposure, camera tilt, photo capture, and video recording.

Built into the remote controller is DJI's latest long-range transmission technology OCUSYNC™, which when paired with a compatible mobile device gives you a live HD view from the Phantom's carnera. Dual frequency support makes the HD video downlink more stable.



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, left and right movements. The gimbal dial controls the camera's tilt.



\* 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).

1. Download the DJI GO 4 App

Search for 'DJI GO 4' on the App Store or Google Play, and install the app on your mobile device.



DJI GO 4 App

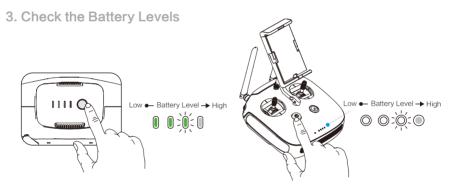


2. Watch the Tutorial Videos

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

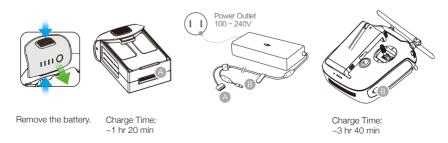


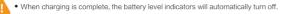
Tutorial Videos



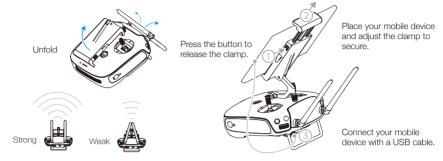
Press once to check the battery level. Press once, then again and hold to turn on/off.

### 4. Charge the Batteries

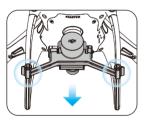




### 5. Prepare the Remote Controller



6. Prepare for Takeoff



Remove the gimbal clamp from the camera.



Power on the remote controller and the aircraft.



DJI GO 4 App

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



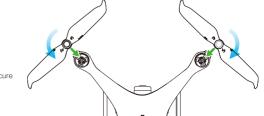
Black propeller rings go on motors with black dots.



Silver propeller rings go on motors without black dots.



Press the propeller down onto the mounting plate and rotate in the lock direction (\*) until secure.



• Check that the propellers are secure before each flight.

## 7. Flight

## Ready to Go (GPS)

Before taking off, make sure the Aircraft Status Bar in the DJI GO 4 app indicates 'Ready to Go (GPS)' or 'Ready to Go (Vision)' if 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)

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



#### Normal

You are in control of the Phantom, with satellite and Return-to-Home support.



#### TapFly

Tap on your screen to fly your Phantom in that direction, avoiding obstacles as it flies.

#### ActiveTrack

Mark an object on your screen to track it as it moves.

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. When the aircraft is returning to the Home Point, you should guide it with the control sticks. Refer to the Disclaimer and Safety Guidelines for more details.









Combination Stick Command to start/stop the motors



Left stick up (slowly) to take off

- Rotating propellers can be dangerous. Do not start the motors when there are people nearby.
  - Always keep your hands on the remote controller so long as the motor is still spinning.
  - Stop motor mid-flight: Pull the left stick to the bottom inside corner while simultaneously pressing the RTH button. Only stop motors mid-flight in emergency situations when doing so can reduce the risk of damage or injury. Refer to the user manual for details.

#### Manual Landing

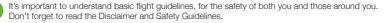


Left stick down (slowly) until you touch the ground

Hold a few seconds to stop the motors



Stop motor mid-flight



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## Specifications

#### Aircraft

| <ul> <li>Aircraft</li> </ul>                              |   |  |  |  |
|---|---|--|--|--|
| Weight (Battery & Propellers Included)                    |   |  |  |  |
| Max Ascent Speed  | S-mode: 6 m/s; P-mode: 5 m/s  |  |  |  |
| Max Descent Speed<br>Max Speed                            | S-mode: 4 m/s; P-mode: 3 m/s<br>45 mph (72 kph) (S-mode); 36mph (58 kph) (A-mode);  |  |  |  |
| Max opecu   | 31 mph (50 kph) (P-mode)  |  |  |  |
| Max Service Ceiling Above Sea Level                       |   |  |  |  |
| Max Flight Time   | Approx. 30 minutes  |  |  |  |
| Operating Temperature                                     | 32° to 104° F ( 0° to 40° C)  |  |  |  |
| GNSS  | 32° to 104° F (10° to 40° C)<br>GPS+GLONASS<br>2.400 - 2.483 GHz and 5.725 - 5.850 GHz  |  |  |  |
| Operating Frequency                                       | 2.400 - 2.483 GHz and 5.725 - 5.850 GHz   |  |  |  |
| Transmitter Power (EIRP)                                  | 2.4 GHz: ≤26 dBm (FCC); ≤20 dBm (CE); ≤20 d   |  |  |  |
|   | 5.8 GHz: ≤26 dBm (FCC); ≤14 dBm (CE); ≤26 dBm (SRRC)  |  |  |  |
| Hover Accuracy Range                                      | Vertical: ±0.1 m (With Vision Positioning); ±0.5 m (With GPS Positioning)<br>Horizontal: ±0.3 m (With Vision Positioning); ±1.5 m (With GPS Positioning)                        |  |  |  |
| Gimbal  | $\pm 0.5$ m (with vision Fositioning), $\pm 1.$   | 3 m (with GF3 Fositioning)   |  |  |
| Controllable Range  | Pitch: -90° to +30°   |  |  |  |
| Vision System   |   |  |  |  |
| Velocity Range  | ≤31 mph (50 kph) at 6.6 ft (2 m) above ground   |  |  |  |
| Altitude Range  | 0 - 33 ft (0 - 10 m)  |  |  |  |
| Operating Range   | 0 - 33 ft (0 - 10 m)  |  |  |  |
| Obstacle Sensory Range                                    | 2 - 98 ft (0.7 - 30 m)  |  |  |  |
| Operating Environment                                     | Surfaces with clear patterns and adequate lighting (> 15 lux)   |  |  |  |
| <ul> <li>Infrared Sensing System</li> </ul>               |   |  |  |  |
| Obstacle Sensory Range                                    | 0.6 - 23 ft (0.2 - 7 m)   |  |  |  |
| Operating Environment                                     | Surface with diffuse reflection material, and refle   | ectivity > 8% (such as wall, trees, humans, etc.)                        |  |  |
| Camera  | All OMOO Effective shade cold   |  |  |  |
| Sensor  | 1" CMOS; Effective pixels: 20M<br>FOV (Field of View) 84°, 8.8 mm (35 mm format equivalent: 24 mm), f/2.8 - f/11, auto focus at 1 m - ∞   |  |  |  |
| ISO Range   | Video: 100 - 3200 (Auto); 100 - 6400 (Manual); Photo: 100 - 3200 (Auto); 100 - 12800 (Manual)   |  |  |  |
| Mechanical Shutter  | 8 - 1/2000 s  |  |  |  |
| Electronic Shutter  | 8 - 1/8000 s  |  |  |  |
| Max Image Size  | 3:2 Aspect Ratio: 5472×3648; 4:3 Aspect Ratio: 4864×3648; 16:9 Aspect Ratio: 5472×3078  |  |  |  |
| Still Photography Modes                                   | Single Shot   |  |  |  |
|   | Burst Shooting: 3/5/7/10/14 frames  |  |  |  |
|   | Auto Exposure Bracketing (AEB): 3/5 bracketed   | frames at 0.7EV Bias   |  |  |
|   | Interval: 2/3/5/7/10/15/30/60 s   |  |  |  |
| Video Recording Modes                                     | H.265   | H.264  |  |  |
|   | •C4K: 4096×2160 24/25/30p   | •C4K: 4096×2160 24/25/30/48/50/60p<br>•4K: 3840×2160 24/25/30/48/50/60p  |  |  |
|   | <ul> <li>•4K: 3840×2160 24/25/30p</li> <li>•2.7K: 2720×1530 24/25/30/48/50/60p</li> </ul>   | •4K: 3840×2160 24/25/30/48/50/60p<br>•2.7K: 2720×1530 24/25/30/48/50/60p |  |  |
|   | •FHD: 1920×1080 24/25/30/48/50/60/120p  | •FHD: 1920×1080 24/25/30/48/50/60/120p                                   |  |  |
|   | •HD: 1280×720 24/25/30/48/50/60/120p  | •HD: 1280×720 24/25/30/48/50/60/120p                                     |  |  |
| Video Storage Bitrate                                     | 100 Mbps  |  |  |  |
| Supported File Systems                                    | FAT32 (≤ 32 GB); exFAT (> 32 GB)  |  |  |  |
| Photo   | JPEG, RAW (DNG), JPEG + RAW   |  |  |  |
| Video   | MP4/MOV (AVC/H.264; HEVC/H.265)   |  |  |  |
| Supported SD Cards  | Micro SD, Max Capacity: 128 GB. Class 10 or U   | IHS-1 rating required  |  |  |
| Operating Temperature                                     | 32° to 104° F (0° to 40° C)   |  |  |  |
| <ul> <li>Remote Controller</li> </ul>                     |   |  |  |  |
| Operating Frequency                                       | 2.400 - 2.483 GHz and 5.725 - 5.850 GHz   |  |  |  |
| Max Transmission Distance                                 | 2.4 GHz: 4.3 mi (7 km, FCC); 2.5 mi (4 km, CE); 2.5 mi (4 km, SRRC)<br>5.8 GHz: 4.3 mi (7 km, FCC); 1.2 mi (2 km, CE); 3.1 mi (5 km, SRRC) (Unobstructed, free of interference) |  |  |  |
| Operating Temperature                                     | 32° - 104° F (0° - 40° C)   | 3.1 mi (5 km, 5 km) (Unobstructed, free of interference)                 |  |  |
| Battery   | 6000 mAh LiPo 2S  |  |  |  |
| Transmitter Power (EIRP)                                  | 2.4 GHz: ≤26 dBm (FCC); ≤20 dBm (CE); ≤20 d   | Bm (SBBC)  |  |  |
|   | 5.8 GHz: ≤26 dBm (FCC); ≤14 dBm (CE); ≤20 d   |  |  |  |
| Operating Voltage   | 1.2 A @ 7.4 V   |  |  |  |
| Charger   |   |  |  |  |
| Voltage   | 17.4 V  |  |  |  |
| Rated Power   | 100 W   |  |  |  |
| <ul> <li>Intelligent Flight Battery (PH4-5870n</li> </ul> |   |  |  |  |
| Capacity  | 5870 mAh  | 136 mm   |  |  |
| Voltage   | 15.2 V  |  |  |  |
| Battery Type  | LiPo 4S<br>89.2 Wh  |  |  |  |
| Energy<br>Net Weight                                      |   |  |  |  |
| Charging Temperature Range                                | 400 g<br>41° to 104° F (5° to 40° C)  |  |  |  |
| Max Charging Power  | 100 W   | /  |  |  |
|   |   |  |  |  |

Download the user manual for more information: http://www.dji.com/phantom-4-pro-v2 \*\* This Quick Start Guide is subject to change without prior notice.



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