

DJI DJI Mavic 2 Zoom

DJI Mavic 2 Zoom Drone Quadcopter User Manual

Comprehensive instructions for setup, operation, and maintenance of your DJI Mavic 2 Zoom.

1. PRODUCT OVERVIEW

The DJI Mavic 2 Zoom is a high-performance drone quadcopter equipped with an optical zoom camera, a 3-axis gimbal for stable footage, and advanced flight features. Designed for dynamic perspectives, it offers exceptional image and video quality.



Figure 1: DJI Mavic 2 Zoom Drone (unfolded, front view). This image displays the drone in its ready-to-fly configuration, highlighting the camera and propeller arms.

Key Features:

- **Optical Zoom Camera:** Features a 1/2.3-inch 12MP sensor with up to 4x zoom, including a 2x optical zoom (24–48 mm).
- **3-Axis Gimbal:** Ensures steady and smooth shots during flight.

- **4K Video:** Records high-resolution video at 3840×2160 24/25/30p.
- **Flight Performance:** Up to 31 minutes flight time and 44 mph max speed.
- **Advanced Sensing:** Omnidirectional Obstacle Sensing for enhanced flight safety.
- **Intelligent Flight Modes:** Includes ActiveTrack 2.0, Hyperlapse, and Dolly Zoom.

2. SETUP AND PREPARATION

2.1 Unfolding the Aircraft

To prepare the Mavic 2 Zoom for flight, carefully unfold the propeller arms. The front arms unfold first, followed by the rear arms. Ensure all arms are securely locked into position.



Figure 2: DJI Mavic 2 Zoom Drone (unfolded, top view). This view shows the drone fully unfolded and ready for propeller attachment or flight.

2.2 Battery Installation and Charging

The Intelligent Flight Battery slides into the top compartment of the drone. Ensure it clicks securely into place. To charge, use the provided battery charger and power cable. The standard remote controller also has a built-in battery that offers up to 135 minutes of battery life on a full charge.

2.3 Remote Controller Setup

The standard remote controller connects to your smartphone via an RC cable (Lightning, Micro USB, or USB Type-C, all included). Download and install the DJI GO 4 App on your smartphone (requires iOS

10.0.2, Android 5.0 or above). Some versions of the Mavic 2 Zoom may come with a Smart Controller, which features an integrated screen, eliminating the need for a separate smartphone.

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Video 1: DJI Mavic 2 Overview. This video provides a general overview of the Mavic 2 drone, showcasing its design and some operational aspects.

3. OPERATING THE DRONE

3.1 Basic Flight Controls

Once the drone is unfolded, batteries are charged, and the controller is connected to the DJI GO 4 App, you are ready for flight. The app provides a live feed from the drone's camera and displays important flight information. Take-off and landing can be initiated via the app or specific controller commands.

3.2 Flight Modes

- **Normal Mode:** Standard flight mode with all safety features and obstacle sensing active.
- **Sport Mode:** Disables some obstacle sensing for increased speed and agility. Use with caution.
- **Tripod Mode:** Limits flight speed and control sensitivity for precise movements and stable shots.

3.3 Camera Operation

The Mavic 2 Zoom's camera features a 2x optical zoom (24-48mm equivalent) and can capture 12MP photos and 4K video. The 3-axis gimbal ensures stable footage. Zoom and gimbal tilt can be controlled via dedicated wheels/buttons on the remote controller.

3.4 Intelligent Flight Features

- **ActiveTrack 2.0:** Advanced subject tracking that can predict subject movement.
- **Hyperlapse:** Creates stunning time-lapse videos with various sub-modes (Free, Circle, Course Lock, Waypoint).
- **Dolly Zoom:** A cinematic effect where the camera zooms in while the drone flies backward, creating a disorienting visual.
- **Omnidirectional Obstacle Sensing:** Detects obstacles in all directions (forward, backward, downward, upward, and sideways) to enhance flight safety. Side sensing is available in ActiveTrack and Tripod modes.

4. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your DJI Mavic 2 Zoom.

- **Propellers:** Inspect propellers before each flight for any cracks, bends, or damage. Replace damaged propellers immediately using the spare propellers provided.
- **Battery Care:** Store batteries in a cool, dry place. Do not overcharge or fully discharge batteries. Follow charging guidelines in the DJI GO 4 App.
- **Gimbal and Camera:** Keep the gimbal and camera lens clean and free from dust or debris. Use a soft, dry cloth for cleaning.
- **Firmware Updates:** Regularly check for and install firmware updates via the DJI GO 4 App to ensure optimal performance and access to new features.

5. TROUBLESHOOTING

- **Loss of Signal:** If the drone loses connection with the remote controller, it will automatically initiate Return to Home (RTH) and fly back to its recorded home point.
- **Obstacle Detection Issues:** Obstacle sensing may be affected when flying low over water due to reflections. Exercise caution in such environments.
- **Low Battery Warning:** The remote controller will provide audible and visual warnings when the drone's battery is low, prompting an automatic RTH if not manually overridden.

6. SPECIFICATIONS

Feature	Specification
Brand	DJI
Model Name	DJI Mavic 2 Zoom
Optical Zoom	2x (24-48mm equivalent)
Sensor	1/2.3-inch 12MP CMOS
Video Capture Resolution	4K: 3840×2160 24/25/30p; 2.7K: 2688×1512 24/25/30/48/50/60p; FHD: 1920×1080 24/25/30/48/50/60/120p
Max Flight Time	Up to 31 minutes
Max Speed	44 mph (72 kph in Sport Mode)
Obstacle Sensing	Omnidirectional
Remote Control Technology	OcuSync 2.0
Max Range	5 Miles (8 km)
Item Weight	905 Grams (2 pounds)
Product Dimensions	8.43" L x 3.58" W x 1.3" H
Included Components	Mavic 2 Zoom, Intelligent Flight Battery, Gimbal Protector, Remote Controller, 3x Propellers (Pair), Battery Charger, Power Cable, Communication Cable (USB3.0 Type-C), USB Adapter, Spare Control Sticks (Pair), RC Cable (Lightning Connector), RC Cable (Standard Micro USB Connector), RC Cable (USB Type-C Connector).

7. WARRANTY AND SUPPORT

For detailed warranty information and technical support, please refer to the official DJI website or contact DJI customer service. Keep your proof of purchase for warranty claims.