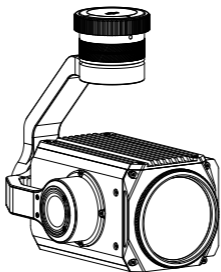# ZENMUSE Z30

User Manual

V1.0   2018.08

dji

Q Searching for Keywords

Search for keywords such as "battery" and "install" to find a topic. If you are using Adobe Acrobat Reader to read this document, press Ctrl+F on Windows or Command+F on Mac to begin a search.

Navigating to a Topic

View a complete list of topics in the table of contents. Click on a topic to navigate to that section.

Printing this Document

This document supports high resolution printing.

Using this manual

Legends

⊘ Warning   ⚠ Important

Before Use

Read the following documents before using the ZENMUSE™ Z30:
1. Zenmuse Z30 Quick Start Guide
2. Zenmuse Z30 User Manual

Check that all of the items are included in the package. Refer to the User Manual for more detailed information.

Contents

Product Profile

Overview

The Zenmuse Z30 gimbal and camera features an optical zoom lens. It provides a 30× optical zoom and 6× digital zoom. The Type 1/2.8 CMOS sensor supports approx. 2.13 million effective pixels. As with other DJI modular cameras, the Zenmuse Z30 can be mounted onto a DJI aircraft and stream live HD video to the DJI GO app.
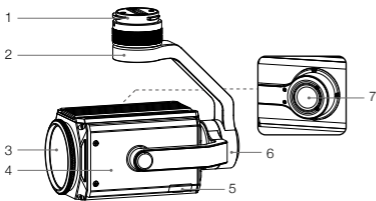
In the Box

Gimbal and Camera ×1

16GB Micro SD Card ×1

Components

1. Gimbal Connector
2. Pan Motor
3. Lens
4. Camera
5. Micro SD Card Slot
6. Roll Motor
7. Tilt Motor

Installation

Getting Started

The Zenmuse Z30 can be used with the following DJI aerial platforms:

Matrice 100 (M100)

Matrice 600 (M600)

⚠ M100 and M600 Gimbal Mounting Kits can be purchased separately on the official DJI Online Store.

Supported Micro SD Cards

The Zenmuse Z30 comes with a 16GB Micro SD card, but also supports Micro SD cards with a capacity of up to 64GB. We recommend using a UHS-1 Micro SD card to minimize the delay when reading and writing high resolution video data.
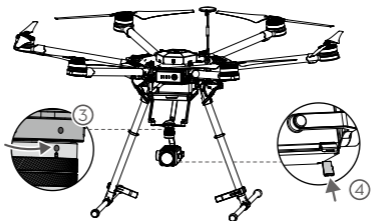
⊘ DO NOT remove the Micro SD card from the Zenmuse Z30 when it is powered on.

Installing the Zenmuse Z30

1. Remove the Gimbal Cap.
2. Align the white dot on gimbal connector and red dot on the aircraft, then insert the gimbal.
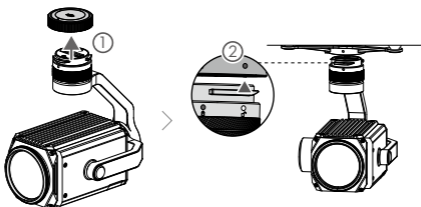
3. Rotate the gimbal lock to the locked position with red dots aligned.

4. Attach the Micro SD card. Default Micro SD card is recommended.

Remote Controller Controls

To adjust the zoom, press the C2 Button and rotate the Left Dial. Press the Shutter Button to capture photos or the Record Button to record video. Adjust the camera's tilt using the Left Dial.
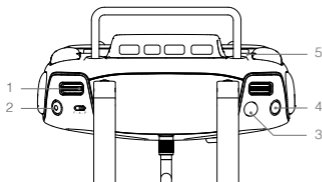
1. Left Dial
2. Record Button
3. Shutter Button
4. Playback Button
5. C2 Button

[1] Left Dial
     Turn to adjust the camera's tilt
     or pan.

[2] Record Button
   Press to start/stop recording video.

[3] Shutter Button
   Press to take photos.

[4] Playback Button
   Press to view photos and videos on your Micro SD card. Press again to exit.

[5] C2 Button
   To adjust zoom, press the C2 button and rotate the Left Dial.

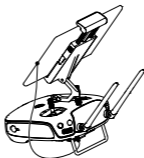# DJI GO App Controls

Downloading DJI GO

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

⚠️ DJI GO supports iOS 8.0 (or later) or Android 4.1.2 (or later).

Connecting to DJI GO

1. Turn on the aircraft and the remote controller.
2. Connect your mobile device to the remote controller using a USB cable.
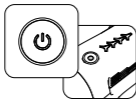
3. Launch DJI GO and enter Camera View. You will see real-time video from the camera when a connection is established.

Operating the Camera

Camera Panel

The touch interface can be used for capturing photos, recording videos and playback. Professional photography controls are also available.

1. Live HD Video
2. Photography Configurations Display
3. Spot Metering/TapZoom Switch
4. AF/MF Switch
5. Defog Button
6. AE Lock
7. Gimbal slider
8. Photo / Video Toggle
9. Shutter / Record Button
10. Parameter Settings
11. Playback
12. Manual Focus (in MF mode)
13. 1× Zoom Button
14. Zoom

Basic Shooting

Taking Photos

Tap the Photo/Video Switch to the ⊕ position. Tap the ○ button to take a single photo. Choose from one of the shooting modes by tapping "⚙" -> 🖸 -> Photo.

1. Burst Mode

    Take 3 or 5 shots in a row.

2. Interval

    Take photos in 2, 3, 4, 7 ,10, 15, 20 or 30 second intervals.

Recording Videos

Slide the Photo/Recording Switch to the ⟳ position. Tap the ● button to start or stop recording video.

Single photo can be taken during recording, as the Photo / Video Toggle will change to be the Photo Button .

Lens Zoom

Tap Buttons "T" and "W" for zoom.

Advanced Settings

Exposure Modes

Tap ⚎ to choose from the following exposure modes:

1. AUTO

    The shutter speed and aperture are set automatically to obtain the correct exposure.

2. A (Aperture Priority)

    Set your aperture. The selected aperture will then be used for photos. Shutter speed will be automatically adjusted accordingly.

3. S (Shutter Priority)

    Set your desired shutter speed, while the camera chooses the aperture automatically. This mode is ideal for freezing action, creating motion blur or low-light shots.

4. M (Manual Exposure)

    In general, increase the ISO for low light environments, and decrease the ISO if the surrounding is very bright.

White Balance

Tap ⚎ -> 📷 ->White Balance to choose from the following modes:

1. Auto

    The camera adjusts the white balance automatically.

2. Sunny / Cloudy / Incandescent

    Choose one of these modes if natural-looking colors cannot be achieved by setting Photo Style.

3. Custom (2000K - 10000K)

    Set a value between 2000K and 10000K to compensate for a specific light source.

List of Settings

Photo	
Shooting Modes	Single shot, Burst shooting: 3/5 frames, Interval (2/3/4/7/10/15/20/30 sec)
Image Format	JPEG
White Balance	Auto, Sunny, Cloudy, Incandescent, Custom (2000K - 10000K)
Video	
Video Size	FHD: 1920×1080 25/30p
Video Format	MOV, MP4
White Balance	Auto, Sunny, Cloudy, Incandescent, Custom (2000K - 10000K)
General	
Video Captions	Supported
Over Exposure Warning	Supported
Grid	Off, Grid Line, Grid + Diagonal
Center Point	None, Circle, Cross, Narrow Cross, Square (No Center Point), Square (w. Center Point), Bracket (No Center Point), Bracket (w. Center Point) Center Point Color: White, Yellow, Red, Blue, Green
Anti-Flicker	Auto, 60Hz, and 50Hz
Format SD Card	Supported
Reset Settings	Supported

Managing your Photos and Videos

Playback

Tap ▶ in the DJI GO app to review photos and videos that you have captured. Press the same button again to return to capturing images.
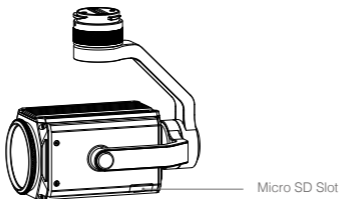
Downloading your Files

Download your photo and video files to your PC using a Micro SD card reader.

Micro SD Slot

Upgrading the Firmware

Mount the gimbal and camera to the aircraft and follow the steps below to upgrade the firmware using a Micro SD card. Using the Matrice 600 as an example.

⚠ • Keep the power supply switched on during the upgrade.
  • Ensure that there is only one version of update file in the Micro SD card, or else there will be an update error.
  • The Z30 firmware is only for upgrading the camera and gimbal, not for the aircraft.

Step 1- Check the Battery Level and Micro SD Card Storage

a. Ensure that the Intelligent Flight Batteries have at least 50% power level. Power on one of the batteries and ensure that other batteries are triggered automatically. If not, find solutions in the DJI GO app.

b. Ensure that there is at least 100MB of free space on the Micro SD card.

Step 2- Prepare the Firmware Update Package

a. Download the firmware update package from the Matrice 600 page on the DJI website.

(http://www.dji.com/matrice 600/info#downloads)

b. Insert the Micro SD card into your PC. Extract all the downloaded files into the root directory of the Micro SD card. While the Matrice 600 is powered off, remove the Micro SD card from your PC and insert it into the Micro SD card slot on the gimbal.

Step 3- Upgrade the Firmware

a. Ensure the remote controller is powered off and then power on one of the Intelligent Flight Batteries. The firmware upgrade will begin automatically once all the Intelligent Flight Batteries are triggered.

b. It will take approximately 5 minutes to complete the firmware upgrade. The gimbal will repeat a beeping pattern of four fast beeps to indicate that the upgrade is in progress, and emit one slow beep followed by two fast beeps to indicate that the upgrade has been completed successfully.

c. Check the upgrade status by opening the .txt file that is automatically generated after the upgrade. You should see the text "result: successful" in the .txt file if the upgrade is successful. Otherwise, try upgrading the firmware again if you see the text "result: failed" in the text file or the gimbal sounds a long beeping sound.

Specifications

General	
Name	Zenmuse Z30
Dimensions	152×137×61 mm
Weight	556 g

Gimbal	
Angular Vibration Range	±0.01°
Mount	Detachable
Controllable Range	Tilt: +40° to -90°, Pan: ±320°
Mechanical Range	Tilt: +50° to -140°, Pan: ±330°, Roll: +90° to -50°
Max Controllable Speed	Tilt: 180°/s, Pan: 180°/s

Camera	
Sensor	CMOS, 1/2.8" Effective Pixels: 2.13 M
Lens	30× Optical Zoom F = 4.3 mm – 129 mm (29 mm – 872 mm equivalent) F1.6 – F4.7 Zoom Movement Speed: Optical Wide – Optical Tele: 4.6 sec Optical Wide – Digital Tele: 6.4 sec Digital Wide – Digital Tele: 1.8 sec Focus Movement Time (∞ – near): 1.1 sec
FOV	63.7° – 2.3°
Digital Zoom	6×
Min. Focus Distance	10 mm – 1200 mm
Photo Formats	JPEG
Video Formats	MOV, MP4
Working Modes	Capture, Record, Playback

Still Photography Modes	Single shot, Burst shooting: 3/5 frames, Interval (2/3/4/7/10/15/20/30 sec)
Video Resolution	FHD: 1920×1080 25/30p
Exposure Mode	Auto, Manual, Shutter priority, Aperture priority
Exposure Compensation	±2.3 (1/3 increments)
Photo Resolution	16:9, 1920×1080
Metering Mode	Center-weighted metering, Spot metering (Area option 12×8)
AE Lock	Supported
Electronic Shutter Speed	1/30 – 1/6000 s
White Balance	Auto, Sunny, Cloudy, Incandescent, Custom (2000K – 10000K)
Video Captions	Supported
TapZoom	Supported
TapZoom Range	1– 5
Defog	Supported
One Key to 1× Image	Supported
Anti-flicker	Auto, 50 Hz, 60 Hz
PAL/NTSC	Supported
Supported SD Cards	Micro SD (SD / SDHC / SDXC) Max. Capacity: 64 GB, Class 10 or UHS-1
Supported File Systems	FAT32 (≤ 32 GB) exFAT (> 32 GB)
Environmental	
Operating Temperature	14° to 113° F (-10° to 45° C)
Storage Temperature	-4° to 140° F (-20° to 60° C)

DJI Support
www.dji.com/support

This content is subject to change.

Download the latest version from
http://www.dji.com/zenmuse-z30

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