Zenmuse XT

Quick Start Guide

V1.0

Zenmuse XT
Powerd by FLIR

Quick Start Guide

Zenmuse XT In the Box

The Zenmuse XT gimbal and camera features the FLIR Longwave Infrared Thermal Camera. It provides high-sensitivity (<50 mK@f/1.0) infrared scanning at 640/30 fps or 336/30 fps (depending on the camera model), and comes with 6.8 mm, 7.5 mm, 9 mm, 13 mm and 19 mm lens options.

As with other DJI 3-axis gimbal systems, the Zenmuse XT can be mounted onto the Inspire 1, Inspire 1 v2.0 or Matrice 100 aircraft and stream live HD video to the DJI GO app. This makes it excellent for aerial thermal applications such as inspection and maintenance, search and rescue, and precision agriculture.

Gimbal Connector

1

Pan Motor

2

Tilt Motor

3

Lens

4

Camera

5

Micro SD Slot

6

Roll Motor

7

Gimbal and Camera ×1 16GB Micro SD Card ×1

For more information, read the User Manual: http://www.dji.com/product/zenmuse-xt

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In the Box

- Gimbal and Camera ×1
- 16GB Micro SD Card ×1

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Installation

Remove the gimbal cap and lens cap.

Rotate the Gimbal Lock on the Inspire 1 to the unlocked position. Align the white lines and insert the gimbal.

Camera Controls

Remote Controller

To select a Palette or adjust digital zoom, press the right dial. Press the Shutter Button or Record Button to capture photos or record video. Adjust the camera’s tilt using the left dial.

DJI GO App

The touch interface can be used for capturing photos, recording videos and playback. The Palette, Scene, Digital Zoom, Spot Meter and Isotherm functions can all be configured in the app.

Specifications

- **General**
  - Name: Zenmuse XT
  - Dimensions: 103 mm × 74 mm × 102 mm
  - Weight: 270 g

- **Gimbal**
  - Angular Vibration Range: ±0.03°
  - Mount: Detachable
  - Controllable Range:
    - Tilt: +30° to -90°;
    - Pan: ±320°;
    - Roll: ±15°
  - Mechanical Range:
    - Tilt: +45° to -135°;
    - Pan: ±320°;
    - Roll: ±45°
  - Max Controllable Speed: 120°/s

- **Camera**
  - Thermal Imager: Uncooled VOx Microbolometer
  - FPA/Digital Video Display Formats: 640 × 512; 336 × 256
  - Analog Video Display Formats: 720 × 480 (NTSC); 720 × 576 (PAL)
  - Pixel Pitch: 17 μm
  - Spectral Band: 7.5 - 13.5 μm
  - Full Frame Rates: 30 Hz (NTSC); 25 Hz (PAL)
  - Exportable Frame Rates: 7.5 Hz (NTSC); 8.3 Hz (PAL)
  - Sensitivity (NEdT): <50 mK at f/1.0
  - Scene Range (High Gain):
    - 640 × 512: -13° to 275° F (-25° to 135° C)
    - 336 × 256: -13° to 212° F (-25° to 100° C)
  - Scene Range (Low Gain): -40° to 1022° F (-40° to 550° C)
  - Spot Meter Temperatures measured in central 4×4
  - File Storage: Micro SD Card
  - Photo Format: JPEG, TIFF
  - Video Format: MP4
  - Video Recording Bitrate: 2 Mbps
  - Support SD Cards: Micro SD, Max capacity: 32 GB

- **Image Processing & Display Controls**
  - NTSC/PAL (Field Switchable): Yes
  - Image Optimization: Yes
  - Digital Detail Enhancement: Yes
  - Polarity Control (Black Hot/White Hot): Yes
  - Color & Monochrome Palettes (LUTs): Yes
  - Digital Zoom:
    - 640 × 512: 2x, 4x, 8x
    - 336 × 256: 2x, 4x

- **Lens Models**
  - Lens Models: 6.8 mm, 7.5 mm, 9 mm, 13 mm, 19 mm
  - f/1.4, f/1.4, f/1.25, f/1.25
  - FoV:
    - 90°×69°, 69°×56°, 45°×37°, 32°×26°
  - iFoV:
    - 2.267 mr, 1.889 mr, 1.308 mr, 0.895 mr
  - Min Focus Distance:
    - 2.3 cm, 2.5 cm, 3.2 cm, 7.6 cm, 15.3 cm
  - Hyperfocal Distance:
    - 1.2 m, 1.2 m, 2.1 m, 4.4 m, 9.5 m
  - Hyperfocal Depth of Field:
    - 0.6 m, 0.6 m, 1.1 m, 2.2 m, 4.8 m

- **Environmental**
  - Operating Temperature: 14° to 104° F (-10° to 40° C)
  - Non-Operating Temperature: -22° to 158° F (-30° to 70° C)
  - Temperature Shock: 5°C/min
  - Humidity: 5% to 95%

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Rotate the Gimbal Lock to the locked position.

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### Camera Controls

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