



RedEdge-M™, RedEdge-MX™ & Altum™
DJI Matrice 100 Fixed Mount
INTEGRATION GUIDE



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Thank you for your purchase!

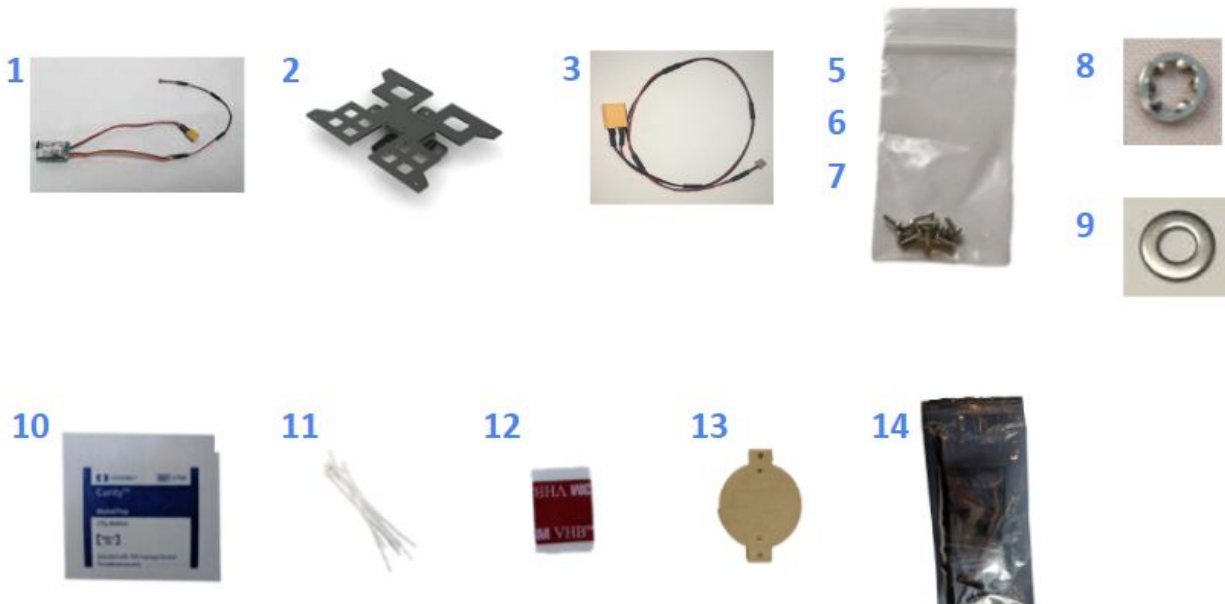
These instructions show how to integrate the MicaSense RedEdge-MX and/or Altum with a DJI Matrice 100. It covers attaching mounting brackets included in the kit, powering the camera from the host system, and placement of the Downwelling Light Sensor (DLS 2) unit.



Warning: This kit is not intended for any other RedEdge models other than the RedEdge-M/MX and Altum. Damage will occur if any other RedEdge model is connected.

What's inside?

1. Battery Eliminator Circuit (Qty 1)
2. Fixed Mount Plate (Qty 1)
3. XT30-DF13 Cable (for Altum) (Qty 1)
4. M 3 X 0.5, 6 mm Screws (Qty 4)
5. M 3 X 0.5, 5 mm Screws (Qty 4)
6. M 2 X 0.4, 6 mm Screws (Qty 2)
7. M 2.5 X 0.45, 4 mm Screws (Qty 2)
8. M3 internal tooth washer (Qty 4)
9. M3 Flat washer (Qty 8)
10. Alcohol Wipe (Qty 1)
11. Zip Ties (Qty 4)
12. Double Sided Tape (Qty 5)
13. DLS2 Mounting Disc (Qty 1)
14. DLS2 Mast kit (Qty 1)



NOTE: Images shown are not to scale.

What's Required?

- #1 Phillips Screwdriver
- Cutting tool - such as scissors or diagonal cutter
- 1.5 mm hex wrench
- 2 mm hex wrench

Let's get started!



Warning: Installation of this kit into a drone should be done by an experienced person, in adherence with all recommendations and guidelines of the Matrice manufacturer. Before assembling this kit, ensure the Matrice 100 is not powered, has the battery removed, and the rotor blades removed. Failure to follow these instructions can result in injury and/or damage to the Matrice, RedEdge, or Altum.

Attaching DLS 2 mast assembly

1. Locate and remove the DJI mast kit from its packaging.
2. There are three carbon rod sizes. Choose the longest and insert it into the base mount.
3. Secure the base mount with the included M2 screw.
4. Place the top cap on the other side of the carbon rod.
5. Secure the top cap on the rod by screwing the M2 screw.
6. Screw in the base of the mast assembly into the aircraft frame using the provided M2.5 screws and mating cap.
7. Secure the DLS2 mounting disc to the mast using the provided M2.5 x 4mm screws.
8. Mount the DLS2 to the DLS2 mounting disc using the provided M2 x 6mm screws.
9. Ensure the DLS 2 connector is oriented toward the front of the drone.
10. Use zip ties to secure any loose wires.



DLS2 Mounted on Matrice 100

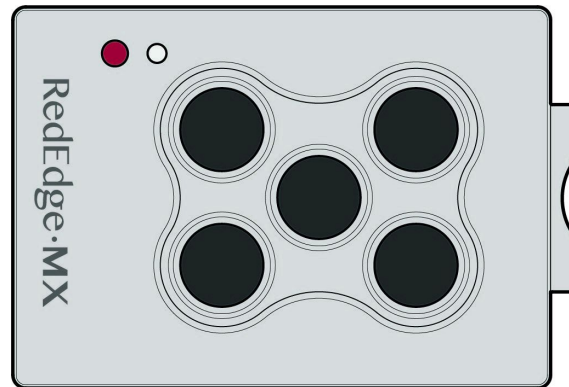


Assembled DLS2 Mast Mounting Plate



Warning: Failure to properly secure loose wires may lead to interference with the aircraft propellers. This may damage the Matrice, RedEdge/Altum, or both.

RedEdge-M & RedEdge-MX Instructions



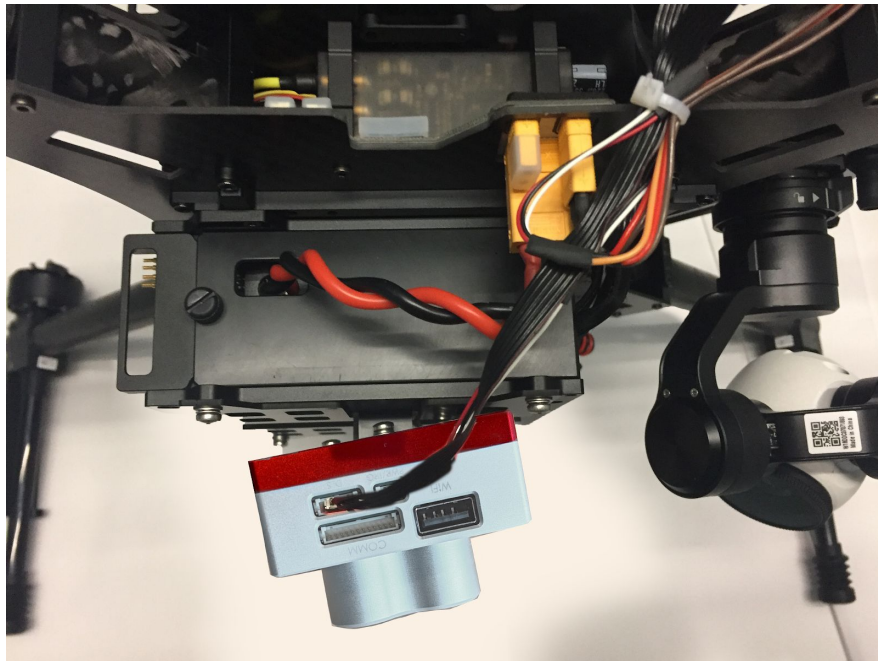
Attaching the RedEdge-M or RedEdge-MX and the Mount

NOTE: These instructions assume that the Matrice 100 has a battery bay installed on the bottom of the aircraft main body. The fixed mount plate attaches to the bottom of the battery bay.

1. Locate the M3 screws, M3 flat washers, M3 lock washers, and fixed mount plate.
2. Attach the mount to the back of the RedEdge-M or RedEdge-MX.
3. The order of washers is important. Starting from the camera, the assembly order should be camera > bracket > flat washer > lock washer > M3 x 5mm screw.
4. Next, attach the mount to the Matrice 100 battery cover using the M3 x 6mm screws and internal tooth washers. Hand tighten until snug, then using a tool turn an additional $\frac{1}{4}$ turn.
5. When attached, the camera will be tilted forward slightly to compensate for the tilt of the aircraft while flying.



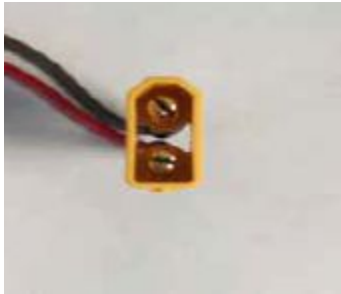
Example: Fixed Mounting Bracket attached to RedEdge-M



Fully connected Fixed Mount on RedEdge-MX

Powering the RedEdge-M or RedEdge-MX

1. Locate the BEC and attach the XT30 connector to the Matrice 100 distribution board as shown below.
2. Connect the RedEdge-MX (3 pin DF13) connector into the power port of the camera.
3. Using VHB tape, secure the BEC to the Matrice 100 frame and secure any loose wires with the provided zip ties.



XT30 connector, note gender keying

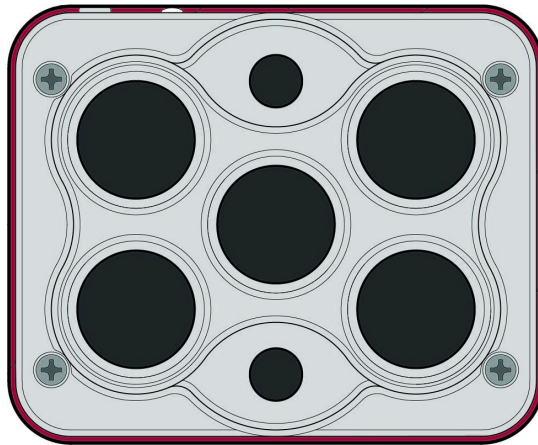


XT30connector plugged into distribution board



Warning: Failure to properly secure loose wires may lead to interference with the aircraft propellers. This may damage the Matrice, RedEdge/Altum, or both.

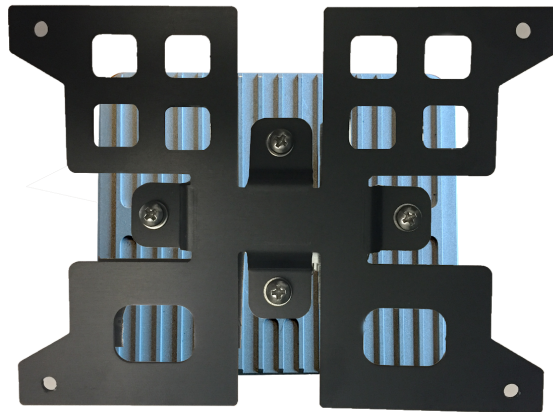
Altum Instructions



Attaching the Altum and the Mount

NOTE: These instructions assume that the Matrice 100 has a battery bay installed on the bottom of the aircraft main body. The fixed mount plate attaches to the bottom of the battery bay.

1. Locate the M3 screws, M3 flat washers, M3 lock washers, and fixed mount plate.
2. Attach the mount to the back of the Altum.
3. The order of washers is important. Starting from the camera, the assembly order should be camera > bracket > flat washer > lock washer > M3 x 5mm screw.
4. Next, attach the mount to the Matrice 100 battery cover using the M3 x 6mm screws and internal tooth washers. Hand tighten until snug, then using a tool turn an additional $\frac{1}{4}$ turn.
5. When attached, the camera will be tilted forward slightly to compensate for the tilt of the aircraft while flying



Fixed Mounting Bracket attached to Altum

Powering the Altum

1. Locate the XT30-DF13 cable to the Matrice 100 distribution board.
2. Connect the Altum wire harness (3 pin DF13) connector into the XT30 cable (No BEC is required for connecting Altum).
3. Secure any loose wires with the provided zip ties.



Warning: Failure to properly secure loose wires may lead to interference with the aircraft propellers. This may damage the Matrice, RedEdge/Altum, or both.

Support

For other RedEdge or Altum associated integration guides, please visit our Knowledge Base at support.micasense.com

For additional questions, please contact support@micasense.com

MicaSense RedEdge-M, RedEdge-MX & Altum Fixed Mount for DJI Matrice 100 Instructions.

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It's simple to plan a successful mission



FLY

The MicaSense sensors low weight, low power requirements, and ability to capture RGB and narrowband spectral bands simultaneously means you can gather the data you need in fewer flights. Have multiple UAVs? MicaSense sensors quickly integrate with many different drone platforms.



PROCESS

With MicaSense sensors, you own your data. You're not limited to a particular processing platform. You can choose whichever platform is best for you, your customer, or your project.



ANYWHERE

We know you need tools you can rely on. That's why we built the sensors we wanted in the field—predictable, tough, and reliable—so you can gather the data you need when you need it.



ANALYZE

RedEdge-MX and Altum have five bands—blue, green, red, red edge, and near-infrared—that our research showed were optimal for sensing crop health. It simply shows you more. And with MicaSense Atlas, you can see many different analytical layers in one easy to use interface, and compare these outputs across time.

To learn more about Atlas or to start a free trial, please visit micasense.com/atlas



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CONTACT

Support@micasense.com US based MicaSense support is here to help.



Located in Seattle, Washington, MicaSense delivers integrated solutions for data gathering, processing, and analytics across the global agriculture market. With decades of expertise in widely varied UAV applications, the MicaSense team is redefining remote sensing technology and pioneering new ways to collect and analyze information.

MicaSense RedEdge-M/RedEdge-MX/Altum DJI Matrice 100 Fixed Mount Integration Guide
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P/N: 805-00019

Revision History

Revision	Description	Date
01	Initial Release	12 Nov 2018
02	Kit content updated	29 July 2019