RedEdge-M™
by MicaSense®

RedEdge-M™ / DJI Inspire 1
Quick Mount
INTEGRATION GUIDE

Table of Contents

Thank you for your purchase!

These instructions show how to integrate the MicaSense RedEdge-M with a DJI Inspire 1. It covers attaching mounting brackets included in the kit, powering the camera from the host system, and placement of the Downwelling Light Sensor (DLS) and GPS unit.

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

What's inside?

1 Quick Mount Adapter
2 DLS/GPS Cable
3 RedEdge-M Mount
4 Go-Pro mount adapter
5 Top mount
6 Top-mount riser
7 GPS base plate

8 DLS base plate
9 DLS Quick Connect board
10 DLS Quick Connect cables (Qty 2)
11 VHB tape squares (Qty 5)
12 4" nylon zip tie (Qty 4)
13 Alcohol wipe

14 M2 x 6 mm screws (Qty 4)
M3 x 8 mm screws (Qty 4)
M2 x 6 mm (Qty 2)
M2.5 x 16 mm (Qty 2)
M3 x 25 mm (Qty 3)
M2 spring washers (Qty 2)
M2 nuts (Qty 2)

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NOTE: Images are not shown 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 Inspire 1 drone should be done by an experienced person, in adherence with all recommendations and guidelines of the Inspire 1 manufacturer. Before assembling this kit, ensure the Inspire 1 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 Inspire 1 or RedEdge-M.

Assembling and attaching the Quick Mount

1. Locate the four M3 x 8 mm flat-head screws and RedEdge-M mount.
2. Peel off the brown protective paper from the RedEdge-M mount
3. Using the countersink screw holes, attach the mount to the back of the RedEdge-M.
4. Locate the two M2 x 6 mm screws and the Go-Pro mount adapter
5. Attach the Go-Pro mount adapter to the RedEdge-M mount.
6. Locate the QuickConnect mount and remove the thumbscrew.
7. Attach the Go-Pro mount adapter of the assembled RedEdge-M mount to the Quick Mount and secure it with the thumbscrew.
8. Connect the RedEdge-M Quick Mount cable to the RedEdge-M "PWR/TRG" port.

Mounting bracket attached to RedEdge-M

RedEdge-M mount attached to Quick-Connect adapter

Fully connected QuickMount

Attaching the RedEdge-M to the Inspire 1

Once assembled, the Quick Mount can quickly and easily be installed or removed from the Inspire 1. Power is provided by the Inspire 1 via the Quick Mount.

1. Ensure that the Inspire 1 legs are in landing mode (not in travel mode).
2. Attach the assembled Quick Mount (with connected RedEdge-M) to the Inspire 1 using the DJI lock mechanism on the Inspire 1.
3. Angle the camera so that, while flying forward, it will point nadir (straight down). The forward-tilt angle can vary by aircraft, but it is typically 8° to 12°.
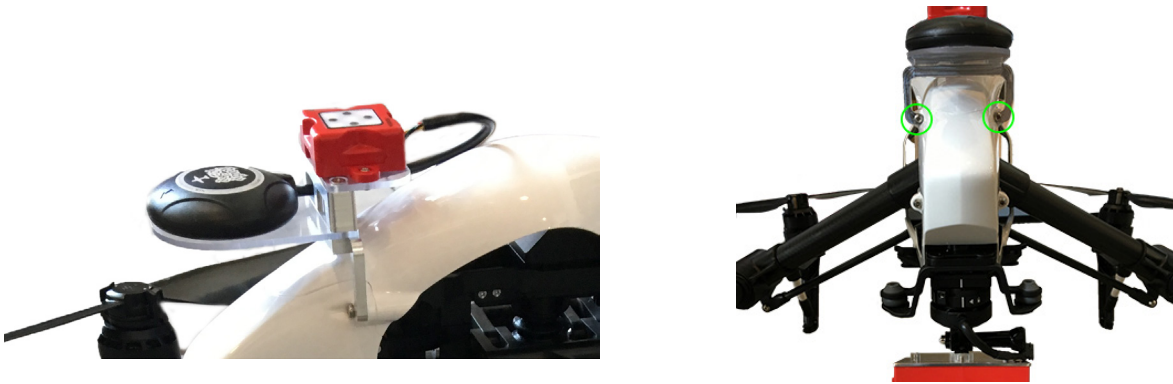
QuickMount on Inspire 1

Assembling and attaching the DLS/GPS top mount

1. Line up the three holes on the DLS base plate, the top mount riser, the GPS base plate, and the top mount as shown in the image below.
2. Place the provided M3 x 25 mm screws through all, and screw them into the top mount.

DLS base plate

Top mount riser

GPS base plate

Top mount

3. To promote adhesion, use the included alcohol wipe to clean all surfaces where VHB tape will be applied.
4. Apply the VHB tape to the GPS base plate.
5. Thread the GPS cable between two of the legs of the top mount riser. Center the GPS over the GPS base plate, and firmly press together.
6. Make sure the arrows on the DLS and GPS are both pointing forward (toward direction of travel). Secure the DLS to the mounting plate as shown using the two M2 x 6 mm screws, washers, and nuts.
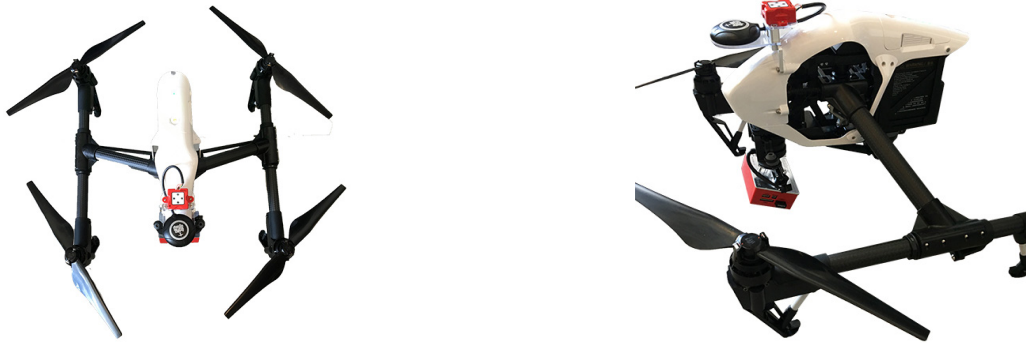
7. Plug the GPS wires into the back of the DLS.

8. Using a hex key, remove the two hex screws at the top-front of the Inspire 1

9. Attach the top mount to the drone using the M2.5 x 16 mm screws (do not reuse the hex screws).

10. Attach one of the DLS Quick Mount cables from the DLS Quick Connect board to the RedEdge-M and the other from the Quick Connect board to the DLS.

11. Using the included zip ties, secure the wire to the aircraft frame as necessary.

12. Use VHB tape to secure the DLS Quick Connect board to the aircraft.

13. Using scissors or similar, trim the zip ties.

⚠ Warning: Failure to properly secure loose wires may lead to interference with the aircraft propellers. This may damage the Inspire 1, RedEdge-M, or both.

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

For additional questions, please contact support@micasense.com

MicaSense RedEdge-M Quick Mount for DJI Inspire 1Instructions.

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DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY

It's simple to plan a successful mission

FLY

The RedEdge-M's low weight, low power requirement, and ability to capture RGB and narrowband spectral bands simultaneously means you can gather the data you need in fewer flights. Have multiple UAVs? RedEdge-M quickly integrates with many different drone platforms.

PROCESS

With RedEdge-M, 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.

ANALYZE

RedEdge-M has 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.

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.

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

SIGN UP

Visit atlas.micasense.com to create your free MicaSense ATLAS account.

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Download RedEdge-M user manuals, integration guides and support resources via your ATLAS account.

CONTACT

support@micasense.com

US based MicaSense support is here to help.

MicaSense®

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.