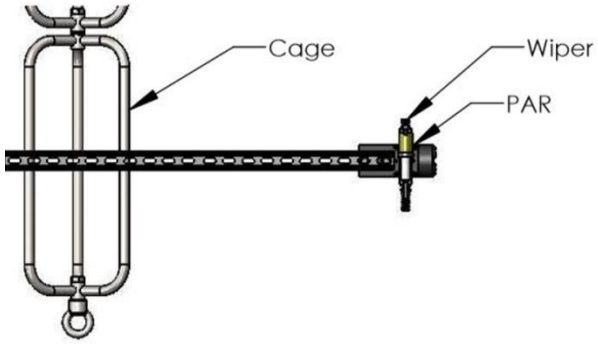
NexSens LI-COR Sensor Mounting Arm Quick Start Guide

The NexSens LI-COR Sensor Mounting Arm (M-ARM) is designed for mounting a Li-COR 192 photosynthetically active radiation (PAR) sensor to the instrument cage of a CB-Series buoy.



Installation

1. Use a 3/8" wrench and a Phillips-head screw driver to attach the Hydro-wiper battery pack to the mounting block with (3) 10-32 X 1-3/8" pan head screws, (3) #10 flat washers, and (3) 10-32" nylon insert locknuts.

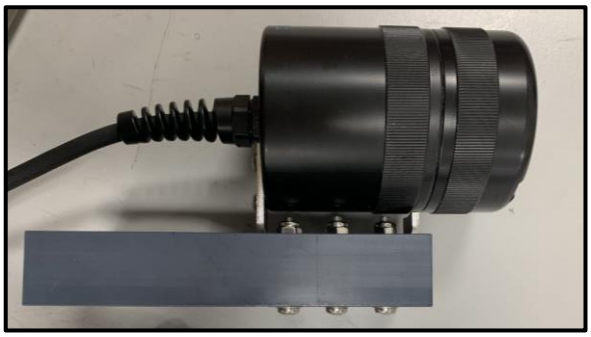


Figure 1: Side view of battery pack attached to the mounting block.

2. Use a 9/16" socket wrench and 9/16" combination wrench to attach the mounting block to the Unistrut arm using the (2) 3/8-16 X 1-5/8" hex cap bolts, (2) 3/8" flat washers, (2) 3/8" fender washers, and (2) 3/8-16" nylon insert locknuts.

    a. Slide the fender washers into the Unistrut arm and align them with the 2 large holes on the mounting block.

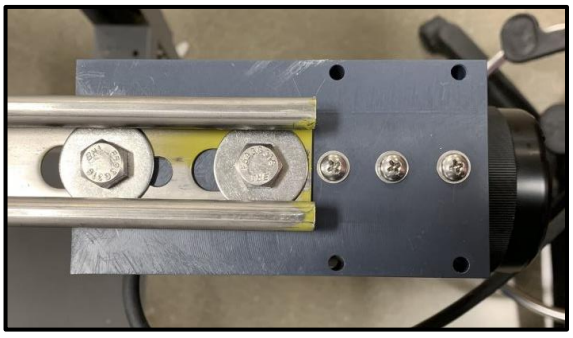


Figure 2: Bottom view of mounting block connected to the end of the Unistrut arm.

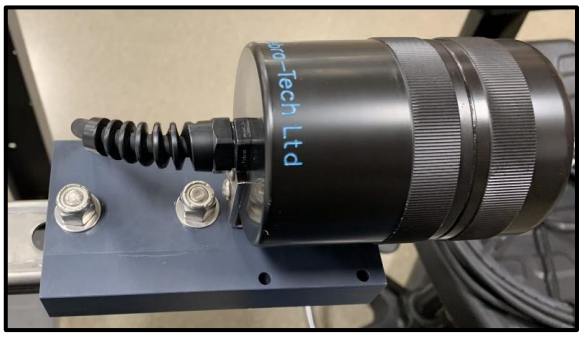


Figure 3: Top view of mounting block connected to the end of the Unistrut arm.

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3 Use a size 25 metric Allen wrench to remove the sensor holder from the Hydro-wiper.

Figure 4: Back view of hydro-wiper; remove the 4 small bolts in the middle.

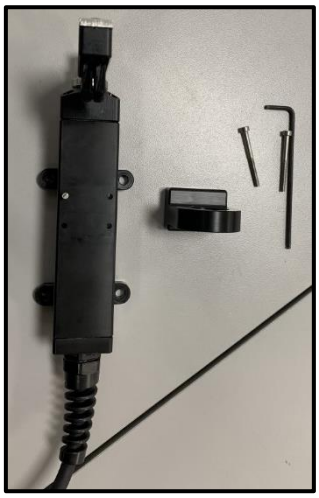

Figure 5: Removed sensor holder is on the right of the image.

4 Locate the yellow marking on one of the edges of the Li-192's black collar.

a. Note this location relative to the sensor label prior to placing it inside the sensor holder. This will be necessary for proper cable orientation later.

Figure 6: Document the location of the yellow marking.

5 Remove the protective red polymer cap from the face of the Li-COR 192, insert the sensor into the holder, and reattach the holder to the Hydro-wiper.

Figure 7: Side view of the Hydro-wiper with LI-COR 192 sensor inserted and sensor holder reattached.

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6 Use a flat head screwdriver to insert the (3) 6-32 X 3/4" mounting screws provided by LI-COR into the bottom of the sensor holder.

Figure 8: Side view of sensor holder with "shrink tube" screws partially inserted.

7 Use a 3/8" wrench and a Phillips-head screw driver to attach the Hydro-wiper to the mounting block with the remaining (4) 10-32 X 1-3/8" pan head screws and (4) 10-32" nylon insert locknuts.

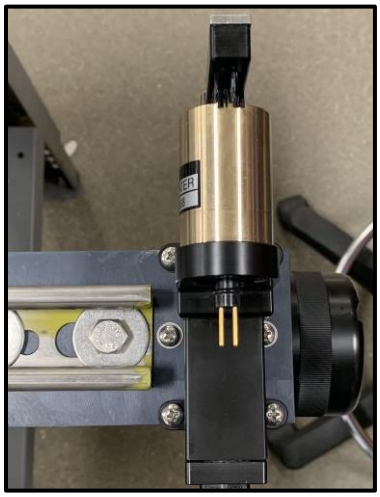

Figure 9: Top view of Hydro-wiper connected to the mounting block.

8 Connect the LI-COR 192 cable to the sensor by aligning the exterior dimple of the cable with the yellow mark identified earlier. Press together gently until it fully locks in place. Twist the white cap until hand tight.

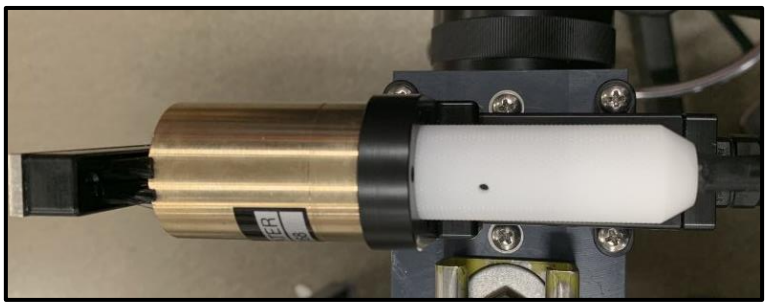

Figure 10: Top view of Hydro-wiper with LI-COR cable connected to the sensor.

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9 **For small cages,** place the U-bolts on the cage and align one of the U-bolt ends with a circular cutout on the interior of the Unistrut arm. Ensure that the cage orientation allows for the PAR sensor to face the desired direction.

Figure 11: Top view of U-bolt and brace alignment on instrument cage.

10 Use a 7/16" socket wrench to secure the arm to the cage using the (4) 1/4-20 nylon insert nuts. Evenly tighten each side of the U-bolts.

Figure 12: Complete Unistrut arm attachment to a small NexSens instrument cage.

11 **For large cages,** slide fender washers into the groove of the Unistrut arm and align them with the slots of the arm and the large cage.

Figure 13: Top view of alignment for hex cap bolt installation.

12 Use a 3/8" socket wrench to secure the arm to the cage using the remaining hex cap bolts, fender washers, and nylon insert locknuts.

Figure 14: Complete Unistrut arm attachment to a large NexSens instrument cage.

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