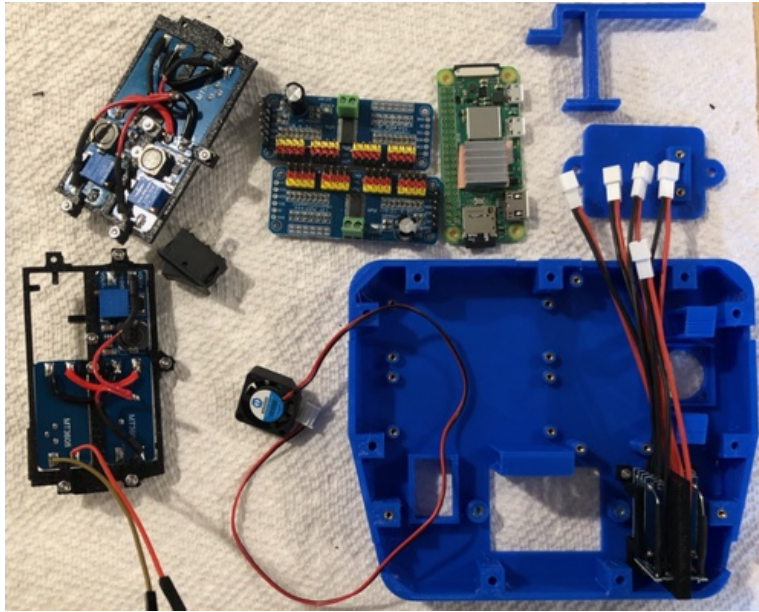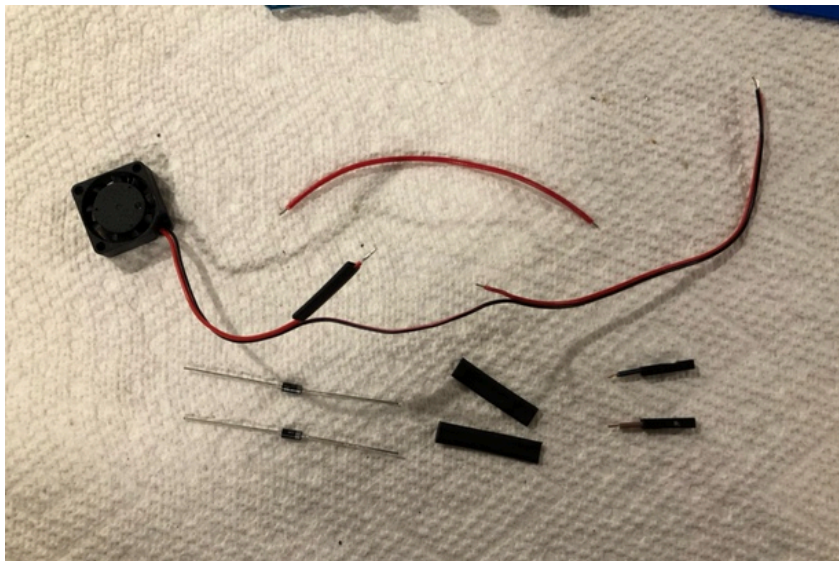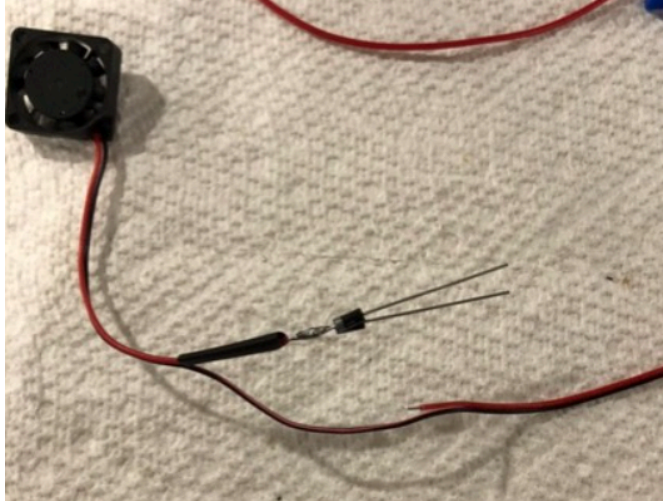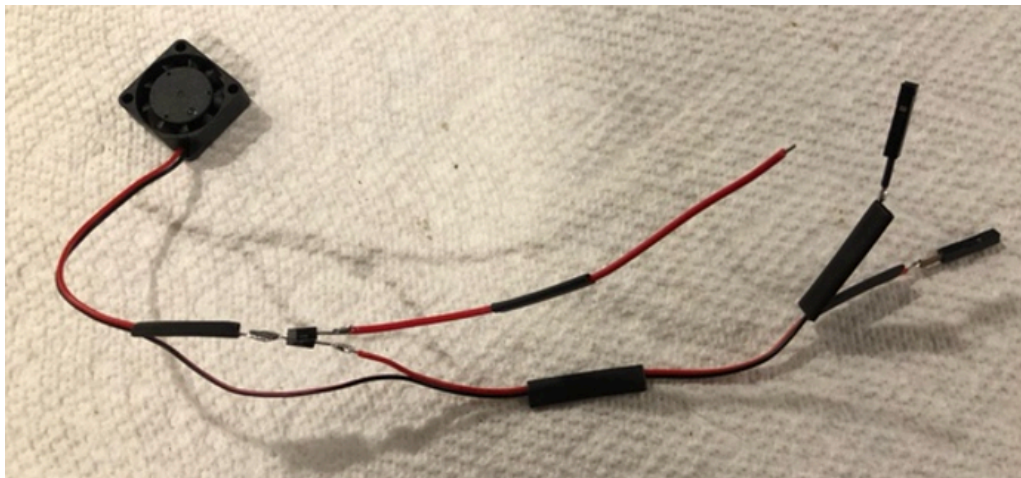# LWP Back Plate Build Instructions

Back plate, BMS module, two boost converter assemblies, two PCA boards, one raspberry pi zero 2W, small fan, and battery back plate.
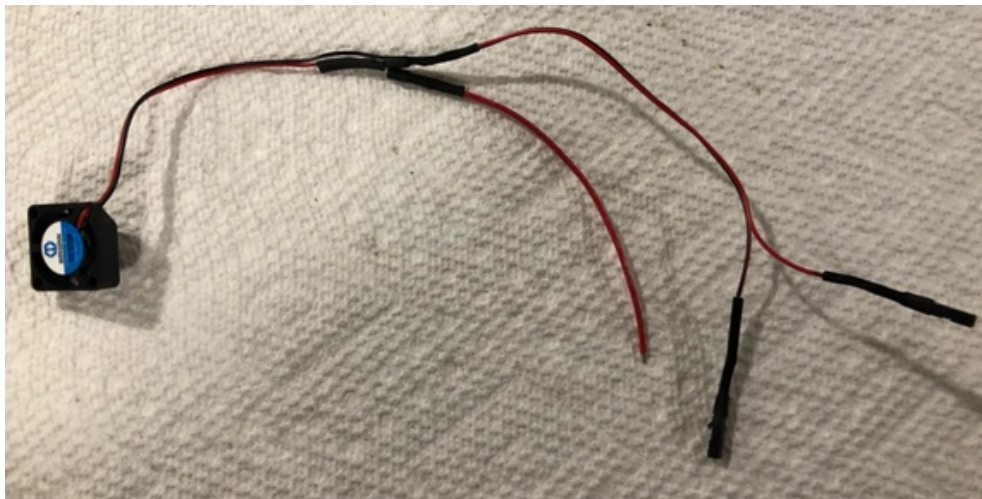

To use the fan we need to sever the red wire and attach two diodes to the end closest to the fan. Both diodes pointing to the fan (silver end indicates direction of current). Note we have removed the fan connector. We will install jumper pin connectors in their place. The purpose of this is so that the fan will be powered on while the robot is in operation and it will also power on when the robot is connected to a power cable.
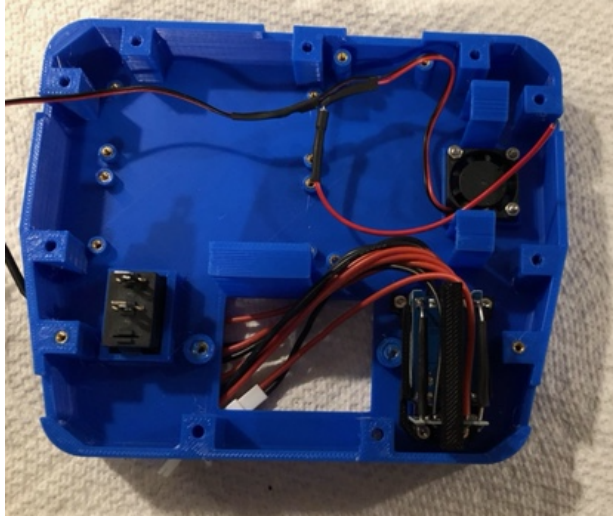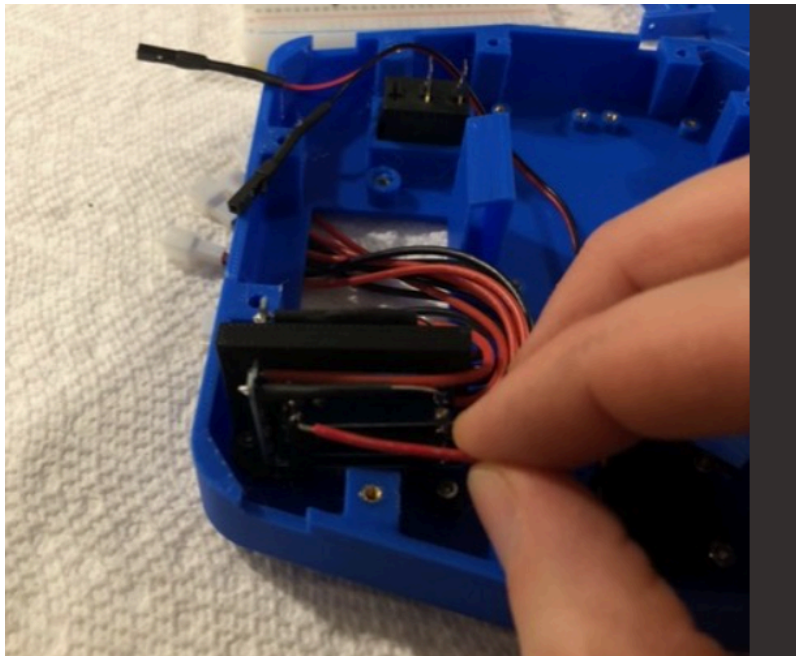
Two diodes attached.

One diode is soldered onto the original red wire and the other diode is soldered to a free wire about 4-5 inches in length.
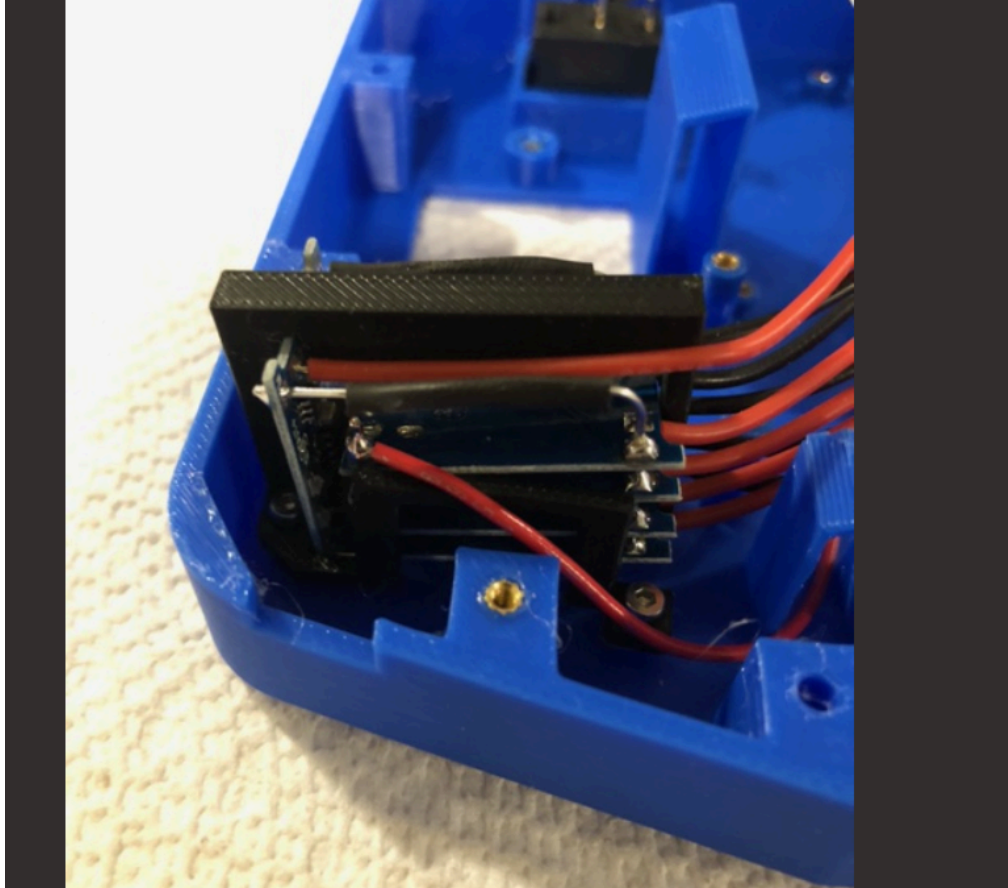

Everything attached as it should be.

You may now install the fan in the back plate.

Attach the free red wire to the USB power rail. This is the small wire we left at a slightly longer length in the BMS module.

Wire attached. Note the wire running through the tunnel. This completes the fan install portion of the back plate.