



## Hardware Build Guide: Water Quality Conductivity Temperature and Level Sensor

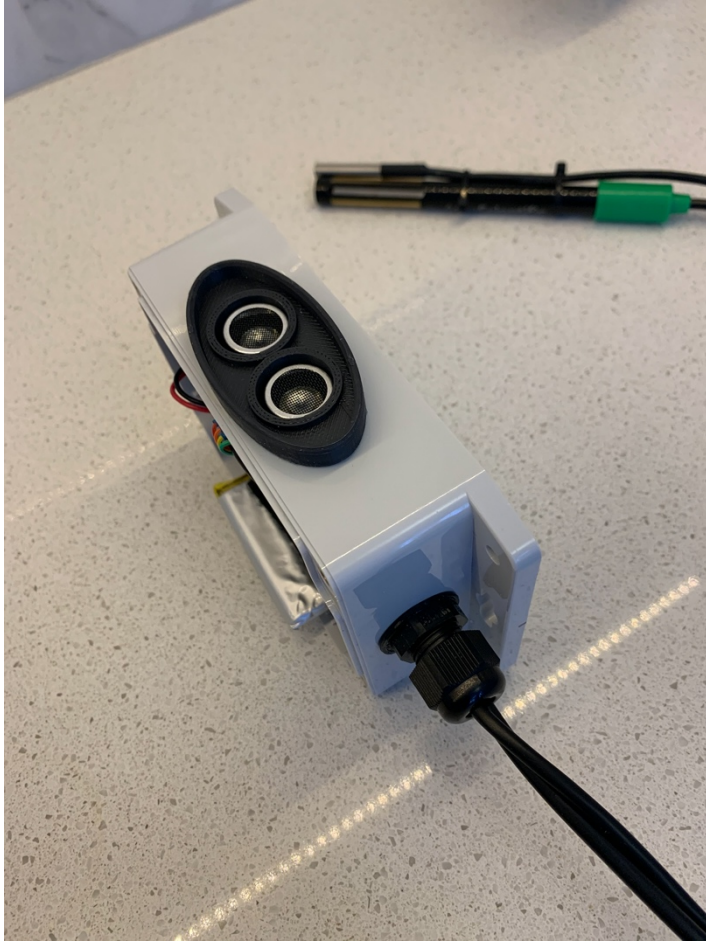
Build Guide version 0.2. Warren Davies

Draft for Comment

## Ultrasonic Sensor Mount with 3D printed insert.

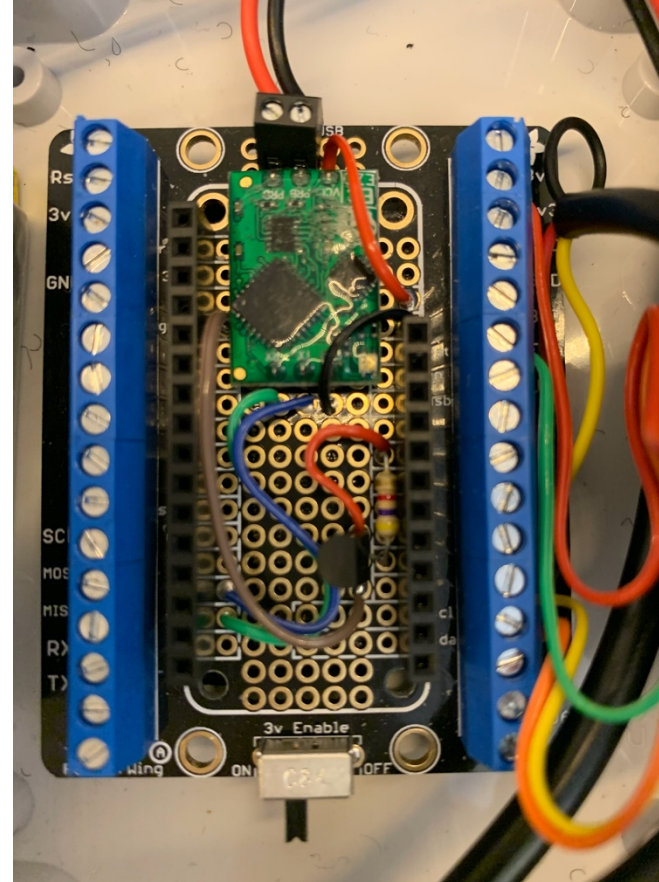
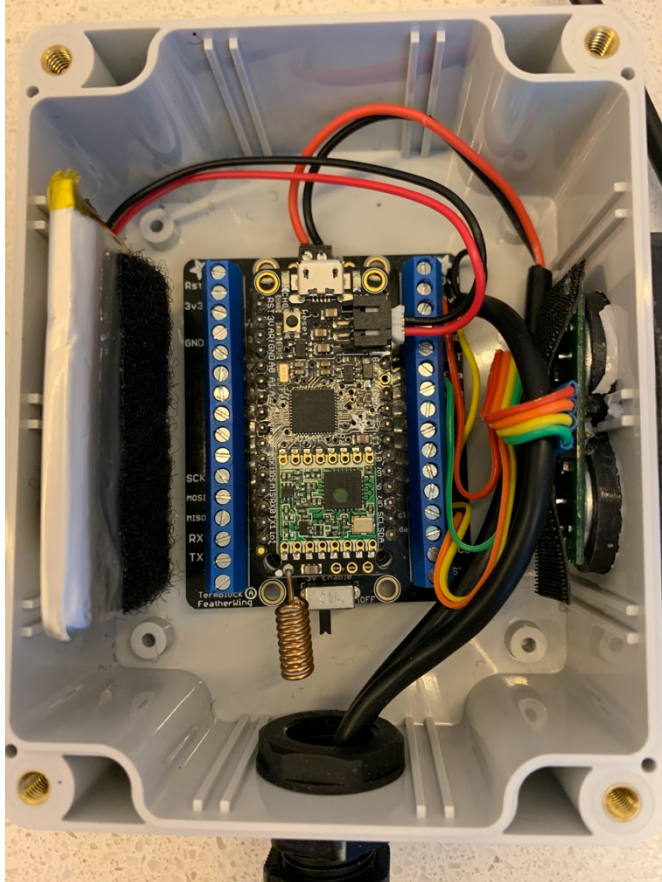
The insert helps to increase the reliability of the level sensor and protect it from splashes

Use this guide along with the GitHub page. <https://github.com/aklciot/StreamECSensor> for device design, code and user guide



## Internal Construction.

Velcro is used to mount hardware. This innovation significantly improves serviceability and reduces build time. The ultrasonic is fixed with a small spot of silicon sealant.



The EC sensor ezo controller is connected by serial to the via blue and brown wires shown.

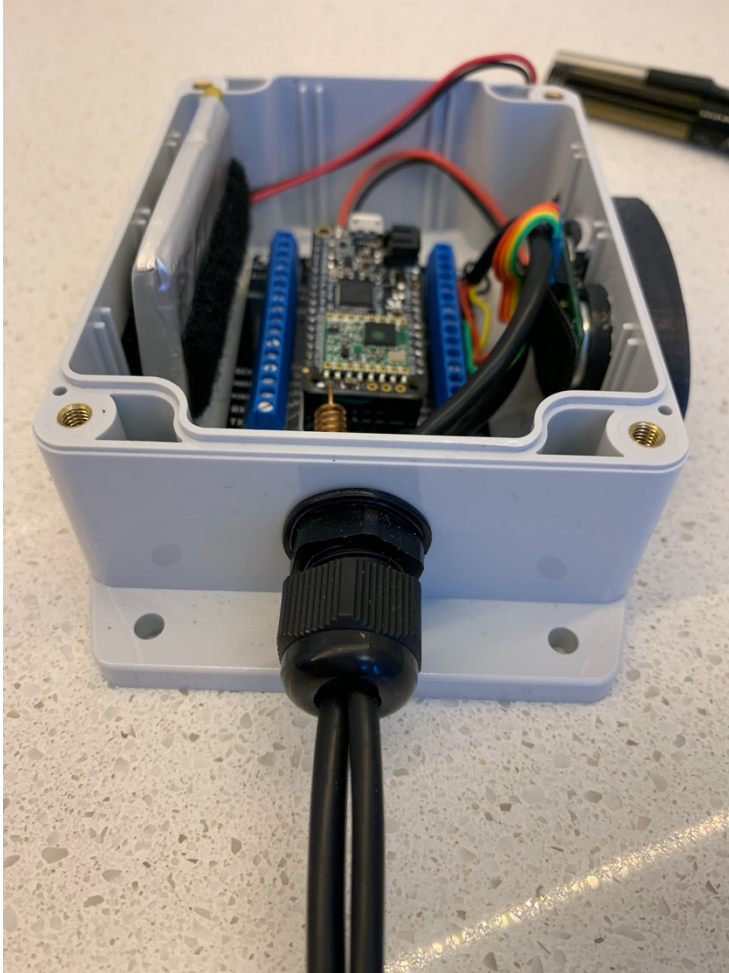
The internal digital thermometer is shown powered by a digital pin and 4.7k pullup resistor .

Check out the sensor code file for pin-out definitions.



## Sensor Tether Cable Construction.

Use water proof gland to attach the sensor tether cable.



The EC sensor and waterproof digital thermometer are tied together.

The sensor tether cable should be 3-4 metres in length and 6 core flex.

See the included DS18B20 guide and sensor code for to connect the temp sensor.