

EE/CPRE/SE 492 - sddec22-10

Low Water Crossing Indicator

Biweekly Status Report 2

Reporting date: 9/17/22-9/27/22

Client: Lee Harker

Faculty Advisor: Lee Harker

Team Members:

Dylan Blattner: Product Owner/Sensor Lead

Nithin Sebastian: Signage Lead

Brandon Choy: Wireless Communication Lead

Jacob Ross: Power Systems Lead

Tyler Rebischke: Solar Lead/Team Lead

Past Week Accomplishments:

Dylan:

- Took measurements of ultrasonic sensors under operation
- Researched power saving techniques for the Arduino

Nithin:

- Ordered extra wires necessary for getting LED's programmed by arduino
- Got LED's working

Brandon:

- Researched sensor implementations on the LoRa module
- Start planning on a check system

Jacob:

- Battery container research
- Battery connection to system research
- Battery capacity research

Tyler:

- Completed power calculations for all of our systems and ordered the corresponding solar panels and batteries needed
- Researched various waterproofing techniques that are industry standard for both circuit boards and wiring

Pending Issues:

Individual Contributions:

Team Member	Contribution	Weekly Hours	Total Hours
Dylan	Power testing and research	4	10
Nithin	Got LED's working	4	7
Brandon	Worked on Implementation	3	8
Jacob	Battery container research	4	5
Tyler	Power calculations and orders placed	6	13

Plans for Upcoming Week:

Dylan:

- Begin implementation of LED, LoRa, and water sensor
- Create mounting post for sensor to gather more accurate sensor data under different conditions

Nithin:

- Work with Brandon and Dylan on integrating LED/arduino system with LoRa transmitter and receiver

Tyler:

- Begin setup of solar and battery system
- Continue research on waterproofing technologies

Brandon:

- To begin implementation of the depth sensor and signages with the lora

Jacob:

- Testing on batteries to see actual values versus described values