sddec22-10: Low Water Crossing Level Indicator

Week 3 Report
February 14 - February 20

Team Members

Tyler Rebischke — *Team Lead/Solar lead*
Dylan Blattner — *Product owner/Note taker and Sensor lead*
Jacob Ross — *Team Member/Power Storage Lead*
Brandon Choy — *RF Communications*
Nithin Sebastian — *Signage/Alerting*

Summary of Progress this Report

Continued research around several key areas in the project:
RF Communications
Water Depth Sensing
Solar
Signage/Alerting
Power Storage
Processor

Pending Issues

None at the moment

Plans for Upcoming Reporting Period

Nithin: Keep researching signage, start looking into LED light technologies for Lee's "ruler" idea
Tyler: Assist Dylan/Brandon with sensors/RF communication
Jake: Assist Dylan/Brandon with sensors/RF communication
Dylan: Keep looking at sensor tech., tell Tyler/Jake what you need help with
Brandon: Keep looking at RF tech., tell Tyler/Jake what you need help with

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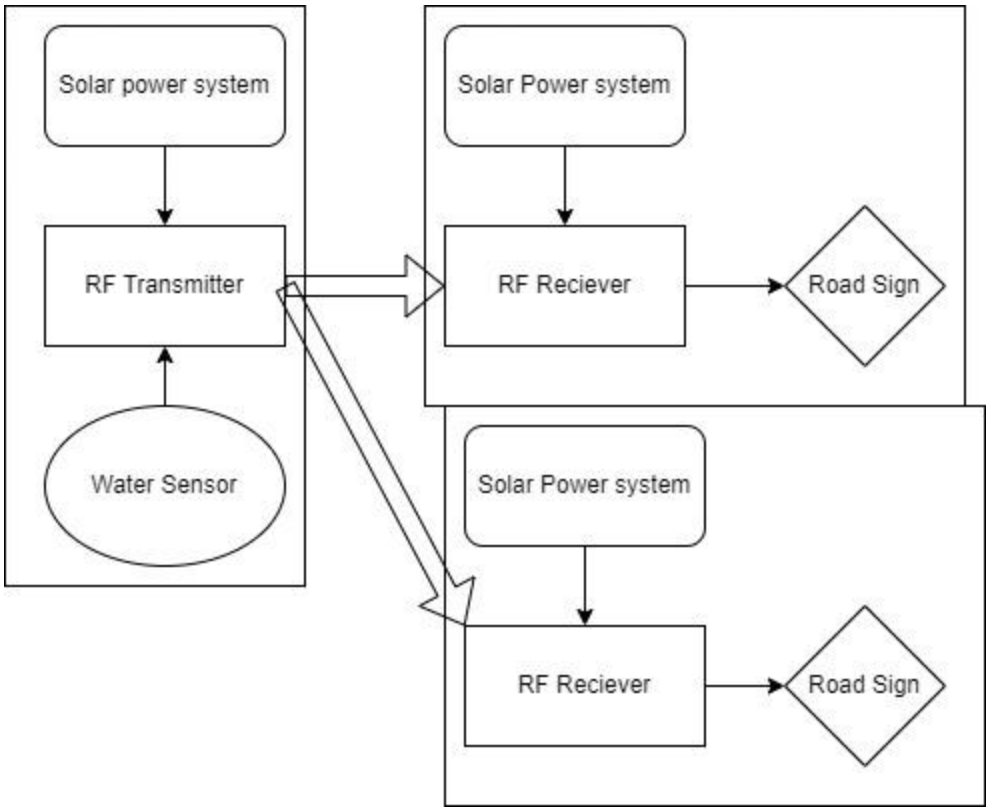

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Tyler Rebischke	Continued researching different solar systems and the power they could provide Conducted calculations to see what angle our solar panel would need to face, which is 66.8 degrees in the summer and 23.3 degrees in the winter. Began researching other power system options like wind turbines Created a simple block diagram of our project	6	15
Dylan Blattner	Completed the table and overall organization for the professionalism assignment Continued researching different types of sensors used to measure water level Found sensors that would work, pending final decision based on power consumption and budget concerns Took notes at meeting with client/advisor	5	10
Jacob Ross	Continued researching power storage in batteries Began doing basic research on RF communications while I wait for power consumption is estimated Did a thorough look over a previous project similar to ours to see if there are any ideas/methods we can adopt	5	10

Brandon Choy	Continued researching about radio frequency communications and its applications today Discovered different types of RF communications and what best fits our project Found parts that will exactly fit this application such as a transmitter and receiver that will read water sensor data. Looked into more of the concerns that come with RF	4	9
Nithin Sebastian	Started researching available options for addressable LED Strips that we can use on our sign to display water levels Found a weatherproof programmable LED strip that utilizes arduino to control the lights on the strip Found tutorial on how to set up strip, and program each pin(this customizability is perfect for representing water levels with accuracy) to display specific lights	3	8

Gitlab Activity Summary

Nothing to report.