sddec22-10: Low Water Crossing Level Indicator

Week 5 Report
February 28 - March 6

Team Members

Tyler Rebischke — *Team Lead/Solar Lead*
Jacob Ross — *Power Systems Lead*
Dylan Blattner — *Product Owner/Sensor Lead*
Brandon Choy — *Wireless communications*
Nithin Sebastian — *Signage/Alerting Lead*

Summary of Progress this Report

-Started preparing to order first components for prototyping
-Started looking at previous Arduino projects that are similar to ours
-Looked at RF technologies to determine which would best suit our project
-Looked at LED technologies for the signage module

Pending Issues

None

Plans for Upcoming Reporting Period

Tyler: Research cellular communication systems, send in order for components by end of week
Brandon: Reach out to Iowa DOT, figure out which module for pure RF we want to use
Dylan: Order the sensor you found, figure out a testing framework we can use.
Nithin: Find a LED system to order. Figure out a testing framework we can use for figuring out how many LEDs we need.
Jake: Find a possible battery system, figure out which solar panel output we need to keep the battery fully charged (overbudget)

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Tyler Rebischke	Started researching cellular communications systems Finished up early investigation of RF Communication systems	6	27
Jacob Ross	Researched into possible power systems and batteries Looked into water sensors to see possible options	3	16
Dylan Blattner	Picked out appropriate sensor to order next week Continued to look into different Arduino products Researched weather resistance	4	16

	shells for our device		
Brandon Choy	Picked out appropriate RF technology LoRa and explored its capabilities. Determined the pros and cons of LoRa technology Researched potential LoRa transceivers that we will be using.	3	15
Nithin Sebastian	This week I primarily looked into more cost-effective options for addressable LED strips I also began researching whether it would be more effective to get a normal addressable LED strip, and then place a casing over it, or if a weather-proof LED strip would be better	2	12

Gitlab Activity Summary

Nothing to report.