

2.10 ALERRT CENTER Weekly Status Report

October 28, 2019

Submitted by: Bo Heyse

Course Instructor: Mark Welker
Faculty Advisor: Dr. McClellan
Sponsor: Texas State University

Team Members:

Bo Heyse[PM]
Karina Paz

Matthew Healea

Green Current Project Status

Testing is progressing well. So far we have passed all of our test cases but noticed improvements that can be made for the overall system. Bo was able to successfully calibrate the sensor and visualize the difference. We noticed the values being recorded can be more precise for improved accuracy so he will be working to fix that this week. Matt built a voltage divider circuit to poll our battery life but realized he used resistors that were too small so the circuit was pulling excess power so he will rebuild and retest with bigger resistors so less energy is wasted on that circuit. Karina has begun testing the storage capacity, and connection range of the sensor and bluetooth modules. We anticipate all testing to be done before Final Design Review.

Individual Updates (Activities Completed, Activities Planned)

Bo	Calibrated the magnetometer, accelerometer, and gyroscope for testing purposes.
	Recorded a video showing before and after for results. Looking into a way to increase the sensor sensitivity values for more accurate integration when visualizing change in position.
Matt	Worked on FDR, rebuilt the voltage divider circuit with larger resistors to reduce current through it for longer battery, begin testing range of Bluetooth transmission.
Karina	Worked and printed the 3rd iteration for the enclosure with added voltage divider circuit attached to module. Designing and running test conditions for storage capacity and battery life.

Upcoming Deliverables (course and project due in next 2 to 3 weeks)

<u>Deliverable</u>	<u>Due Date</u>	<u>Status</u>
Increase sensor sensitivity	11/2/2019	In Progress
Test battery, storage, connection range	11/2/2019	In Progress

Sponsor and Faculty Advisor Meetings/Calls Held & Planned

<u>Who</u>	<u>Last</u>	<u>Topic(s)</u>	<u>Next</u>
Dr. McClellan	10/2	Meeting times have not aligned, will try to plan a meeting with Welker this week.	TBD

