

Project Name: Distributed Sniffer Nodes for Batteryless Sensor Nodes

Team Name: sdmay24-25

Advisor/Client: Professor Duwe

Meeting Dates: Jan 16 2024, Jan 23 2024

Team Members in Attendance: Thomas Gaul, Spencer Sutton, Tori Kittleson, Ian Hollingworth

Matthew Crabb could not attend the meetings due to class conflicting with the meeting times and no meeting time that worked for all team and Professor Duwe. We also met prior to winter break and covered similar material, and all members were in attendance.

Summary

Prior to winter break, our team discussed with Professor Duwe what went well throughout the semester. We made good progress for hardware with having a test PCB and a first revision of the MSP-430 simplified board completed and started initial design for the Sniffer PCB. On software it took us longer than desired to get to where we were at. We completed testing of APIs and coming up with the software system design so need to hit the ground running this semester. Additionally, our Design Review presentation and report turned out very well.

After winter break, in our meetings we discussed the deliverables for the professor of 9 functioning Sniffer BOB stacks, GitLab repository with Readme explaining the use and documentaion about functionality. Finally we discussed who was doing what. Tori: Completed updated revision of the simplified MSP-430 board; Matt: Start implementing the Sniffer board; Spencer: Start work on a mock BOB (Faux BOB) ; Ian: investigate SPI needs; Thomas: Investigate BLE.

Decisions Made

We decided to make a minimal viable product with two CC1352s on the board and then work on decreasing it to one CC1352s. In the most recent meeting, we decided to hold off on implementation using BLE and instead use the EasyLink API for the minimal viable product and explore other options once that is working.

Next Steps and Actions

The next step on hardware is to complete the MSP-430 revision and complete the sniffer battery system design. The next step for software is to get a simple Faux BOB implemented, get basic Sink node code running, and get the Sniffer Relay CC1352 code sending data back to the Sink. After that we will implement the Sniffer Data CC1352 for collecting data from the BOB.