Project Status Report



Nikolai

**Get the mesh network communication working on the Adafruit Feathers without requiring EEPROM.**

First step was to find out how to obtain a unique identifier on the Feather M0’s.

There was the possibility of a MAC address on the Radio, LoRa serial number or the SAMD21 processor having an ID. Found a library that can extract this value and display it on serial output.



From here I hard coded the first byte in the radio sending test and assigned an ID of 1 or 2 to the two Feathers that I have for simplicity. Once the others come in, they will be assigned 3 – 7.





Next step is to have the Feathers go to sleep and then wake up on a timer to send a message.

This will be more difficult to debug since the serial port to the monitor gets disabled upon sleep and doesn’t get reestablished upon waking. I plan to use the built in LED to blink several times depending on whether it is sending or has received a message.

Tyrel

* Working on interfacing simulated data into unity so that unity can depict which spot is full.
* The garage structure isn't done yet in Unity, but I figured I should make sure I can figure out how to send and receive the data how I want.
* The order for the clocks and batteries have been placed, but I haven't heard on a delivery date at this time. I am supposed to follow up with Carrie today.
* The boards should all be at the den. But again, I am following up with Carrie when I get there.

Zane

Transfer code from Pro Mini Arduino over to MKR board (it has the same processor as the Feather that we will ultimately be using).

revisit efficiency/power saving routines to further optimize battery life.

Modify the PIR and Ultrasonic sensors to remove any unnecessary components that hinder battery life. There are lots of tutorials online about how to do this, as well as convert the sensors from 5v logic to 3v.

Work with Nikolai to visualize total power consumption of the system, and begin putting together a display for 1 year battery life requirements. We will be using smaller batteries, so I need to show that if we changed out the batteries to <specific capacity> that the system would last for one year.

Finalize the enclosure. I need to print the final enclosure, prep, paint and weatherize it, and figure out how the components will be situated inside.

Joel