

## **Senior Design Bi-Weekly Status Report; Fall 2020**

**Team Name:** sdmay21-14

**Team Members:** Kwanghum Park, Jacob Bernardi, Douglas Zuercher, Zacharias Komodromos, Bryce Staver, Eddie Duan

**Report Period:** September 14 - October 4

### **Summary of Progress in this Period**

Project scope will consist of a wake-up system, RF harvester, and MCU package that a user could use to perform low-power computational tasks.

We have decided that we will find pre-made parts for a DC-DC converter and the wake up radio.

Decided on pursuing design where MCU goes into low power sleep mode and will be woken up by a wake-up IC that is always on, when enough power is present.

### **Pending Issues**

Get in contact with Professor Duwe's grad student to get information on harvesting rates

Contact Powercast to see if we can get more information on power harvester IC

Decide on what the wake up trigger will be

### **Plans for Upcoming Reporting Period**

*Work through specific details on system design.*

The next steps for our project include working through some of the specific details in the system design. With the scope of our project figured out, it is now time to start looking more closely at the specific design choices that will meet our solution requirements.

Immediately, we are exploring if there are better options for the DC-DC converter and what ICs will work for our wake-up system needs. We will continue looking at what devices would allow us to have a MCU in an ultra low power mode that could be woken up with some premade wake-up radio IC.