**Project Title**: RF Imaging Array for Biomedical and Industrial Applications

**Date**: [10/18/21] | **Client**: Professor Tayeb Al Qaseer (“Tayeb”)

**Members:**

-***Denise Orege*** – Co-lead on client liaison, CST simulation, and antenna array design

-***Trent Moritz*** – Co-lead on client liaison, CST simulation, and antenna array design

-***Justin Pioquinto*** – Lead on low-level programming, data processing, and user interface design

-***Karthik Vempati*** – Co-lead on data processing, PCB design, and user interface design

-***Si Yuan Sim*** – Co-lead on client liaison; lead on RF PCB and switch design

-***Joe Paffrath*** – Lead on ADC PCB design

-***Josh Montgomery*** – Lead technical writer; associate data processing and user interface design

**What we’ve accomplished in the past week/what we’ve been researching:**

-***Denise Orege*** – Denise and Trent continued to work on the antenna design renderings, and they are nearing the point where they can place the antenna orders.

-***Trent Moritz*** – Denise and Trent continued to work on the antenna design renderings, and they are nearing the point where they can place the antenna orders.

-***Justin Pioquinto*** – Justin and Si Yuan spent considerable time planning the interfacing of the microcontroller.

-***Karthik Vempati*** – Karthik spent a good amount of time internalizing the concepts of the RF PCB and following up with the client to get funding.

-***Si Yuan Sim*** – Justin and Si Yuan spent considerable time planning the interfacing of the microcontroller.

-***Joe Paffrath*** – Joe carefully studied the ADC datasheet and is ready to begin development once the parts are ordered.

-***Josh Montgomery*** – Josh finished writing the testing assignment and followed up with the lightning talks.

**What we’re planning to do in the coming week:**

-***Denise Orege*** – Denise and Trent are partnering on completion of the frequency response simulations for the antennas. They want to finish this week.

-***Trent Moritz*** – Denise and Trent are partnering on completion of the frequency response simulations for the antennas. They want to finish this week.

-***Justin Pioquinto*** – Justin expects to begin programming the microcontroller once it is purchased.

-***Karthik Vempati*** – Karthik will follow up with the professor to finalize funding and also draft a new full system schematic.

-***Si Yuan Sim*** – Si Yuan is finishing the RF PCB and helping to supervise others’ contributions. He is planning the microcontroller interfacing as well.

-***Joe Paffrath*** – Joe is going to start figuring out how to deliver 5V of clean power to the ADC and also design the interface with the relevant complimentary sub-systems.

-***Josh Montgomery*** – Josh is going to finish the testing lightning talk PPT and start mockups on the user interface display.

**Issues we had in the previous week:**

-***Denise Orege*** – Antenna simulations continue to be a challenge for Denise and Trent.

-***Trent Moritz*** – Antenna simulations continue to be a challenge for Denise and Trent.

-***Justin Pioquinto*** – Justin is still waiting patiently for the microcontroller; funding has been delayed.

-***Karthik Vempati*** – Learning the intricacies of the RF PCB has been a steeper learning curve than anticipated.

-***Si Yuan Sim*** – Si Yuan is still waiting patiently for the microcontroller; funding has been delayed.

-***Joe Paffrath*** – Joe is also still waiting patiently for the microcontroller; he now also has to struggle through determining how to power the ADC.

-***Josh Montgomery*** – Josh was working hard on finding a convenient meeting time for all team members, and the schedules conflict somewhat, which made it more challenging.