

EE/CprE/SE 491 WEEKLY REPORT 2

09/20/2024 – 09/26/2024

Group number: sdmay25-15

Project title: Millimeter-wave 3D Scanner

Client &/Advisor: Mohammad Tayeb Al Qaseer

Team Members/Role: Nathan Reff, Luke Post, James Peterson, Daniel Ripley-Betts

○ **Weekly Summary**

This week the team finalized scheduling for meetings with our client and amongst ourselves. The team met with our TA as well to briefly inform them of our project and the work involved. Mahmoud provided some useful insight into how we could potentially begin working on the software before the hardware is ready by simulating the incoming signals using Matlab.

○ **Past week accomplishments**

- Nate:
 - Researched Voron builds and UI options
 - Finalized scheduling and documentation
- Luke:
 - Finished the Product research sheet by doing some sketchnoting
 - Gained access to the circuit boards needed and made a plan to start soldering the components on to them.
- Daniel:
 - Researched Voron builds
 - Looked into PID tuning
 - Confirmed parts are ordered
- James:
 - Looked into web apps for UI
 - Researched wave imaging
- Everyone:
 - Met with Tayeb and developed a plan for upcoming weeks. Finalized scheduling

○ **Pending issues** *(If applicable: Were there any unexpected complications? Please elaborate.)*

- Daniel: All good
- Luke: None
- Nate: None
- James: None

Individual contributions *(Creating this section is optional, but it is **Required to include the “Hours Worked for the Week” and their “Total Cumulative Hours” for the project for each member somewhere relevant in your report. Your individual weekly hours should be at a minimum of 6-8 hours for this course. So please manage your time well. Also, ensure that individual contributions support your claim to the weekly hours. Be honest with the reports.***)

NAME	Individual Contributions <i>(Quick list of contributions. This should be short.)</i>	Hours this week	HOURS cumulative
Nate	Research in mm wave scanning, meetings	1	2
Luke	Sketchnoting for product research. Acquired circuit boards and made a plan to solder	2	3
Daniel	Scheduling, research, meetings	1	2
James	Research into UI and imaging	1	2

- **Comments and extended discussion** *(Optional)*
Feel free to discuss non-technical issues related to your project.

- **Plans for the upcoming week** *(Please describe duties for the upcoming week for each member. What is(are) the task(s)?, Who will contribute to it? Be as concise as possible.)*
 - Nate:
 - Meet with team and discuss plans - do more background research
 - Luke:
 - Solder the boards -> solder mask, place components, reflow oven, test
 - James:
 - Meet with team and discuss plans
 - Daniel:
 - Get with Luke to determine when soldering will happen. Keep track of when parts for Voron arrive. Looking into python GUI design with figma. Get Github setup.

- **Summary of weekly advisor meeting** *(If applicable/optional)*
We did not meet with our advisor this week as we are still waiting on parts to arrive for the Voron printer kit. However, our meeting with our TA went well. We met and discussed how much computer engineering was directly involved in our project, along with where we were at, and some ideas for the lightning presentations.