EE/CprE/SE 491 WEEKLY REPORT 1
08/26/2024 – 09/19/2024
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

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- **Weekly Summary** *The overall objective for the first couple weeks was to meet with all the members of the team, meet with our advisor Dr. Tayeb, get a basic understanding of the project and do some background research about what will be done for the project. As a group we met up and met with Tayeb to establish first communication. We constructed a reliable schedule to meet amongst ourselves and with Tayeb. From there we strengthened our understanding of Fourier Transforms and software capabilities to process them. Researched similar products and technologies.*

- **Past week accomplishments**

  - Nate: Established the google drive for sharing documentation for the in class activities and project-based learning. Researched millimeter scanning and 3D printing to gain a better understanding of our project
  - Luke: Researched microwave scanners in the applied science complex. This included the hardware setup and current scanning table range of motion. Also looked into the software behind the control of the scanning table and imaging system.
  - Daniel: Watched several videos on Fourier transforms and made a drone
  - James: Researched Voron printers and their gantry systems as well as millimeter wave technology to understand the project better.
  - Everyone: Met as a team, met with our advisor, and worked on the team contract

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

  - Daniel: scheduling
  - Luke: Scheduling issues due to busy schedules
  - Nate: Scheduling issues
  - James: scheduling

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 *(Quick list of contributions. This should be short.)*	Hours this week	HOURS cumulative
Nate	Established google drive for documentation	1	1
Luke	Emailed Dr. Tayeb about meeting times	1	1
Daniel	Set up Discord, avid googling	1	1
James	Research project related information	1	1

- **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: Figure out what parts to actually order, meet with Tayeb
  - Luke: Get a date figured out to start soldering (Hopefully next friday), meet with Dr. Tayeb to figure out immediate project steps
  - James: meet with Tayeb, brainstorm ideas for web app UI.
  - Daniel: Determine the significance of and uniqueness of this project, meet with Tayeb, research Marlin firmware.

- **Summary of weekly advisor meeting** (*If applicable/optional)*

Met with Dr. Tayeb, get a basic understanding of the project and do some background research about what will be done for the project. As a group we met up and met with Tayeb to establish first communication. We constructed a reliable schedule to meet amongst ourselves and with Tayeb
We met again with Dr. Tayeb at ASC3 to view the existing systems, as well as our workspace. In this meeting we clarified more details about the specific voron format for this project, some specifications, and some ideas about the web UI.