
EE/CprE/SE 491 BI-WEEKLY REPORT 5

Start Date – End Date:

Semester start – 4/21/2023

Group number: Sdmay23-41

Project title: Automated Testing Station for Sensing Applications

Client &/Advisor: Moneim Ismail

Team Members/Role:

Thomas McCoy: Group organization, Software development

Matthew Rief: Cad designs / 3d printing

Garth Anderson: PCB design

Malvin Lim: PCB design

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- **Weekly Summary** Objectives of this week were continuing / completing manufacturing of both the circuit boards and mounting brackets for the vacuum chamber. Members Malvin and Garth participated in discussions with the engineering technology group at Iowa State and the PCB manufacturer to ensure circuit boards are going to finish manufacturing and arrive in a timely manner. Thomas continued researching software capabilities and fine tuning the existing software base. Matt continued manufacturing attempts for the vacuum chamber hardware, as well as revising cad designs to assist in those efforts.
 - **Past week accomplishments**
 - Thomas McCoy: Continued refinement of labview scripts
 - Malvin Lim: Researching PCB manufacturer process steps, and required input files
 - Garth Anderson: Administrative work, filling out manufacturing forms and contacting appropriate vendors to expediate and or check up on where our PCB boards were at in the manufacturing process.
 - Matthew Rief: Revising Cad files for cheaper, more reliable, faster manufacturing. Researching new construction materials that can be used in addition to past 3D printing efforts.

Individual contributions

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Thomas McCoy	Labview script development/refinement	3	34
Garth Anderson	PCB manufacturing administrative work	2	32
Malvin Lim	PCB manufacturing research	2	34
Matthew Rief	3D printing and Cad design improvement	2	25

- **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.)* □
Garth: Receive bare PCB and solder components to finish the boards
Malvin: Assisting Garth and begin electrical testing of the completed boards.
Thomas: Continue adding software features to labview script. If available, begin initial systems testing on the newly completed boards.
Matt: Finish PCB mounting brackets to facilitate systems testing
- **Summary of weekly advisor meeting** *(If applicable/optional)*

Meeting was held over zoom call. Group members shared updates on their respective sub projects and shared our planned next steps. Minor roadblocks to our plans were discussed, such as waiting for 3d printing to finish and waiting for responses from PCB manufacturers.