

Senior Design Bi-Weekly Status Report; Fall 2023

Team Name: sdmay24-44

Team Members: Chris Agyare, Jaxon Dennis, Taylor Moore, Simon Aguilar, Zech Mundy, Vince Quattrone

Report Period: Jan 28 – feb 10

Team members:

- Taylor Moore – Team Lead/Representative
- Christopher Agyare – Machine Shop Specialist
- Jaxon Dennis– 3D Modeling Specialist
- Simon Aguilar – Software Development Lead
- Vincent Quattrone – Software Researcher
- Zechariah Mundy – Software Testing Specialist

Past Week Accomplishments:

- The hardware group (Taylor, Chris, and Jaxon): We have started to assemble our faraday cage obstacle.
- The hardware group (Taylor, Chris, and Jaxon): successfully gained access to the ECpE machine shop and began fabrication of the first trap, the Faraday Cage.
- The software group (Simon, Vincent, and Zechariah): We have initiated research on optimal software architectures and algorithms for the project.
- The software group (Simon, Vincent, and Zechariah): Began testing the arduino with a breadboard for the stopwatch mechanism

Pending Issues:

- Sizing to accommodate vehicles
- Adjusting dimensions of traps to accommodate for car sizes
- Ensure seamless integration of the software with the hardware components of the race track system before having cars test on the track
- Refine error handling and implementation in software

Individual Contributions:

- Jaxon Dennis – Received machine shop training and access, confirmed track dimensions with other teams, cleared up track details with other teams
- Taylor Moore – Received machine shop training, took inventory of all parts we have received, took measurements and began fabricating it
- Christopher Agyare- Received machine shop training, updated track dimensions have been confirmed with other teams, and track details have been clarified with other teams.
- Simon Aguilar – Started designing moult for the race timer and updated the website for the project.
- Vincent Quattrone – Began his research on the arduino coding methods, as well as provided some insight to both Zech and Simon about future Cybersecurity Traps

Plans for Coming Weeks:

- Ramp manufacturing
- Clarification of flooring of track
- Testing of Faraday Cage

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- Testing of track assembly
- Further testing of software
- Implementation of feedback from testing
- Collaborate with hardware team on hardware/software integration efforts