
EE/CprE/SE 491 WEEKLY REPORT 04

3/24– 4/7

Group number: 49

Project title: Laser Target Hit Sensor

Client &/Advisor: Tyler Brockely & Jaydon Kim

Team Members/Role:

Lincoln Khongmaly – Software Developer

Akashkumar Patel – Software Developer

Adam Runde – Circuit Board Design

Sidney Stowe – Arduino Design

Elijah Bryant – Product Assembly

Neftali Medina – Product Design

○ **Weekly Summary**

We are currently assembling the physical target board that will utilize our raspberry pi circuit.

The Arduino code that was previously functioning as the brain for our system was altered to fit the raspberry pi. The new coding language used is Micro Python.

We also completed some intensity testing to determine the digital threshold for the light sensors. Our goal was to determine a threshold that would make the sensor sensitive enough to detect a laser pointer within a 1-inch radius. We also wanted to ensure that natural or artificial light wouldn't accidentally trigger the sensors.

○ **Past week**

- Received the individual pieces of the target and will have to solder and assemble them.
- Switched the code from Arduino to micro python.
- In communication with the client for parts and instruction on how to run the Trigger Interactive app.

○ **Pending issues**

No issues at this point now. We predict that soldering and wiring will bring forth the most issues.

We also anticipate that lower intensity lasers may not work as well with this target, so we are going to test with such lasers next week.

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Lincoln Khongmaly	Looked at code to fix errors and communicated with the client to get all necessary parts ordered.	3	12
Akashkumar Patel	Attended team meetings and viewed the Micro Python code to fix errors	3	12
Adam Runde	Attended team meetings and began assembling parts	3	12
Sidney Stowe	Attended team meetings, soldered boards, and helped with Micro python.	3	12
Elijah Bryant	Attended team meetings and soldered boards together	3	12
Neftali Medina	Attended team meetings, worked on the test circuit and troubleshooted code.	3	12

○ **Comments and extended discussion** (*Optional*)

None at this time

○ **Plans for the upcoming week**

○

Lincoln Khongmaly – Fix rolling value average algorithm. Help solder target together and figure out if anything else is needed.

○ *Akashkumar Patel* – Assist with updating and improving code for lower-intensity lasers.

- *Adam Runde* – Sand down clear acrylic sheet and assist with soldering board.
- *Sidney Stowe* – Will assist Adam in Soldering the board. Will help with the code if not figured out by the next meeting.
- *Elijah Bryant* – Will assist with wiring the raspberry pi that will be used in the diagram.
- *Neftali Medina* – Will also assist in soldering and ensuring that all electrical connections are established before testing.

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

We were supposed to meet with our advisor this past week but could not. We met outside his door and he seemed to be out of his office.