

Team 24

Project Title: Laser Arcade Machine

Date: 10/10/2021

Members:

Joseph Kenkel - Signal Communication

Ashley Robertson - General Hardware

Jonah Stoffer - General Hardware

Mark Kavars - Microcontroller

Tyler Beveridge - Full Stack / Raspberry PI

Morgan Luecht - Front-end Developer

Zack Larson - Back-end Developer

What we've accomplished in the past week/what we've been researching

Joseph Kenkel - I have accomplished specing out boards that are required to send a signal to an Pi.

Ashley Robertson - Continued looking for IR Emitters that were in stock. Also worked on a design for the battery charging

Jonah Stoffer - Did a bit more research into using a flexible PCB like I said I would last week. started to narrow down what is needed for our wireless communication.

Mark Kavars - Ordered raspberry pi, and narrowed down IR

Tyler Beveridge - Setup the PI as a isolated access point, got started with the front end app boilerplate code.

Morgan Luecht - Began working on the designs for front end application

Zack Larson - Looked into languages/Frameworks for backend of application

What we're planning to do in the coming week

Joseph Kenkel - Creating a block diagram on what is needed to complete this project. Helping with the list of LED's to use.

Ashley Robertson - Find an IR Emitter that is in stock. Most likely I will need to find a lens that will sit on the emitter in order to meet our specifications. I also will begin the design for the shooter hardware once an Emitter is found

Jonah Stoffer - I'd like to start some of the target hardware. Coming up with general ideas of what is needed in the schematic and start designing it.

Mark Kavars - Further narrow down IR, and figure out how to optimize its light angle

Tyler Beveridge - Make sure the PI can act as a web api as expected.

Morgan Luecht - Continuing work on design of front end application

Zack Larson - Start boilerplate code for backend, develop database schema

Issues we had in the previous week

Joseph Kenkel - Choosing between bluetooth or RF signal communication. Weighing the pros and cons of both and hoping to make the correct decision.

Ashley Robertson - The parts that we need are highly specific and are normally hard to come by. The part shortage might mean that we have to loosen up on some of our design requirements or get expensive materials to make up for the lack of stock

Jonah Stoffer - Choosing wireless method and whether to use Arduino's or another board.

Mark Kavars - Choosing what wireless communication to use

Tyler Beveridge - I want to have a discussion about using wires to connect the targets to the PI rather than wireless.

Morgan Luecht - Finding time to meet as a complete team to discuss finalizing set up for hardware

Zack Larson - Finding time to meet to discuss project plan