

sdmay19-25: Handheld Emulation Station

Week 2 Report

September 9 - September 15

Team Members

Jacob Nachman — *Meeting Facilitator*

Nick Lang — *Meeting Scribe*

Nic Losby — *Chief Engineer*

Sean Hinchee — *Test Engineer*

Matthew Kirpes — *Report Manager*

Summary of Progress this Report

Started formal research on various topics for the project such as kernel module design, what PCB design software to use, and various soldering techniques to use for our PCB design.

Pending Issues

Deciding on what PCB design software to use and if we should pay for soldering or do it ourselves.

Plans for Upcoming Reporting Period

Have a PCB board design software picked so we can start learning it, continue researching and learning about PCB design, emulation design, as well as start researching on battery optimization and how the raspberry pi will affect battery life.

Past Week Accomplishment

We have started researching on ways to optimize battery life, PCB design software, and kernel module development. We feel that these 3 topics we should start early to get the best grasp of. Sean did a lot of research and reading on emulator development and how we can incorporate that into our project. Nic, Nick, and Jacob spent most of their time learning about about PCB design and the time and cost that will go into that, along with what tools are good to blueprint our PCB. Matt spent his time researching and looking into new features that could make our device more unique from others on the market.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Jacob Nachman	Watched youtube tutorials to learn how to solder, as we will need it when using PCB design. Watched tutorials and read documentation on various PCB boards in order to learn how they work, and what to think about when making our design.	6	8
Nick Lang	Researched PCB design software and development. Researched soldering	5	7

	techniques to attached components to a PCB board. Looked into how to source PCB boards and pricing.		
Nic Losby	Looked at specific vendors for PCB fabrication and comparing cost versus time for soldering components (ourselves or pay a robot). Refreshed memory of circuit design specifically for power supplies.	5	7
Sean Hinchee	Searched for resources on emulator development, watched YouTube videos on emulator development, read about a few previous and related projects and how they succeeded or failed (mostly failed).	6	8
Matthew Kirpes	Looked into possible features that we could incorporate onto the raspberry pi to make it more appealing and unique to our users. Started researching how to reduce the lag for the emulator.	6	8

Gitlab Activity Summary

Nothing to report.
