

## **sdmay19-25: Handheld Emulation Station**

Semester 2 Week 4 Report

2/25 - 2/29

### **Team Members**

Jacob Nachman — *Meeting Facilitator*

Nick Lang — *Meeting Scribe*

Nic Losby — *Chief Engineer*

Sean Hinchee — *Test Engineer*

Matthew Kirpes — *Report Manager*

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### **Summary of Progress this Report**

PCB v4 is now ordered and on the way, ALU completed and now onto byte operations for the emulator, as well as work on the memory map. Opcode tests and GPIO testbed are on the way.

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### **Pending Issues**

Byte operation opcodes, solder PCB v4, testing of opcodes and GPIO, memory map implementation.

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### **Plans for Upcoming Reporting Period**

Jacob Nachman: Finish up opcode byte operations and start implementing the memory addressing in the opcodes that need it. Try and figure out the stack pointer interactions.

Nic Losby: Solder V4 and hope we finally get a prototype fully functioning. Get a RPi CM dev kit ordered.

Nick Lang: Complete the memory unit and interface with the cpu.

Sean Hinchee: Continue to work towards acquiring a better testbed for gpio kernel mod development.

Matthew Kirpes: Continue work on MBC3 and MBC5 for emulator.

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### **Past Week Accomplishment**

Jacob Nachman: Added more processor functions to help check and set flags for ALU operation, refined documentation on the processor, completed the ALU.

Nic Losby: Soldered parts onto V3 and debugged power circuit.

Nick Lang: Built the structure of the memory unit.

Sean Hinchee: Opcode testing infrastructure and addition of utility methods to infrastructure (specifically wrt CPU).

Matthew Kirpes: Worked on MBC3 and MBC5 for emulator.

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