sdmay19-13: Small Equipment Checkout System
Week 8 Report
November 4 - November 11

Client & Advisor:
Leland Harker

Team Members
Yimin Wang — *Hardware team (Chief Manager)*
Fengnan Yang — *Hardware team (Hardware Reporter and Meeting Manager)*
Jiaxin Li — *Hardware team (Treasurer)*
Caining Wang — *Software team (Software Reporter)*
Bei Zhao — *Software team (Secretary)*

Summary of Progress this Report
During this working period, our software team finished building the raspberry pi, including OWFS and raspbian system. Also, they designed the check-in and check-out system on the Android application. Our hardware team tested OWFS system. Then, they built a circuit to control the locker. In the end, we built and tested the door detect circuit.

Pending Issues
1. Obtain the database of the previous team web application.
2. Figure out how to enable the web application to communicate with the OWFS.
3. Figure out how to get the previous team web application server connected.
4. Figure out how to obtain our own team server.
5. Implement corresponding lockers' control in the web application.
6. Figure out how to set up the firewall for the OWserver.
7. Figure out how to set up auto-popup for the web application.
8. Connect the Android application with database.
9. Control the hardware with One Wire File System.
10. Door detecting circuit design.
11. PCB design

Plans for Upcoming Reporting Period
1. Bei Zhao: In the upcoming reporting period, I am planning to learn some basic knowledge about reactjs and nodejs to get a better understanding of how the previous team web application work.
2. Yimin Wang: For the next period, I plan to connect the buzzer and the square wave oscillator I built to the existing circuit.
3. Caining Wang: For the next period, I will learn how to use Google Gmail API to send an email. Then, I will add it to the software so it can automatically send an email to the manager when an item is missing.
4. Fengnan Yang: For the next week, I will focus on how Vreg and DS2406P working on the control circuit.
5. Jiaxin Li: for the upcoming reporting period, I will figure out how to solve problem about disturbing between

external power supply and the Ds2406 Slave Device.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Bei Zhao	1. Finished the implementation of the raspbian system into raspberry pi. 2. Finished the implementation of the OWFS into raspberry pi. 3. Composed my portion of weekly status report	6	51
Jiaxin Li	1. Finished the connection between OWFS and two pins Slave Device which created by previous team. 2. Testing OWFS and finally it can find our one pin Slave Device address and change signals on date pin. 3. Designed the PMOS circuit to realize opening locker when the Master Device give an singal, but the signal got obstructed from our 12 volts external power supply.	10	55.5
Yimin Wang	1. I tested the buzzer that I planned to use in the door detecting circuit. The buzzer I used is SD 1209 with 1-4V supply voltage range. 2. This buzzer doesn't have a built-in oscillator, and can only make sound with square wave input. So, I designed an oscillator with 555 timer that can output a square wave in 3.0V, and 300Hz frequency.	12	62
Caining Wang	1. I optimized each activity of the software. 2. When a user makes a return, it will check if it is the same ISU ID when it was checked out. 3. A manager can check records for a specific locker. 4. When a manager changes the password, it will ask the manager to input new password 2 times to confirm the new password. 5. The return records and checkout records will be listed in green and red color to help manager browses records.	8	55

Fengnan Yang	1. Built a control circuit for the LED circuit and the locker circuit with OWFS and tested them individually. 2. Built a circuit with PMOS to control our locker.	8	54

Gitlab Activity Summary
Nothing to report.