sdmay19-13: Small Equipment Checkout System
Week 9 Report
November 12 - November 18

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 week, our software team made OWFS communicated with the hardware device. At the same time, they had figured out how to use STMP system to send email to the administrator. The hardware team had connected the OWFS to our circuit to control the whole system. What's more, in order to solve the PMOS problem, they used a voltage regulator to redesign the circuit. Also, they connected a buzzer to the door detecting circuit to remind the user to close the door.

Pending Issues

1. Figure out how to enable the web application to communicate with the OWFS.
2. Figure out how to get the previous team web application server connected.
3. Figure out how to obtain our own team server.
4. Implement corresponding lockers' control in the web application.
5. Figure out how to setup the firewall for the OWserver.
6. Figure out how to set up auto-popup for the web application.
7. Connect the Android application with database.
8. PCB design
9. Figure out how to run an Android Virtual Machine on the pi.

Plans for Upcoming Reporting Period

1. Bei Zhao: In the upcoming reporting period, I am planning to figure out how to get the previous team web application server connected and how to enable the web application to communicate with the OWFS.
2. Yimin Wang: I plan to finalize the door detecting circuit, and combine this circuit to the locker and LED circuit. And solve any problems with the voltage supply.
3. Caining Wang: For the next period, I will start to run our software on the raspberry pi and run some tests on it.
4. Fengnan Yang: For the next week, Jiaxin Li, Yimin Wang and I will focus on how to connect the LED and locker control circuit with door detecting circuit together and debug.

5. Jiaxin Li: For the upcoming reporting period, I plan to work with our teammates to combine our hardware circuit to see how it works.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Bei Zhao	1. Improved the OWFS communicated with the hardware device. 2. Obtained the database of previous team's website. 3. Finished the reflection assignment 5 4. Finished my portion of weekly report 9.	15	66
Jiaxin Li	1. The interface between the external power supply and Slave Device still exist and cannot eliminate, so we decided to redesign our circuit rather than PMOS. 2. We chose 5-pin voltage regulator to replace PMOS as a trigger to open the locker. 3. We amplified the voltage of output pin on Ds2406 Slave Device, because the voltage is not strong enough to trigger the on off situation. And the new circuit did not have the problem as before. 4. Connected our new circuit with OWFS on raspberry Pi and the got expected result.	14	69.5
Yimin Wang	1. Connected buzzer and oscillator to the door detecting circuit. 2. Adjusted the voltage gain of the amplifier so it can turn the timer on when the output of the hall effect sensor is high, and turn off when it's low. 3. Adjusted the position of the Hall Effect sensor so it can better interface with the magnet.	12	74
Caining Wang	1. Learned how to use Google Gmail API, but then find out it can't meet the project requirement, because of that it needs to access Gmail APP to send an email. 2. I looked on the internet for solving the issue, and found it can be solved by using the STMP function. 3. Added STMP function to software, it now can automatically send an alert email to manager when an item is reported as	9	64

	missing. 4. A manager now can add its email address to receive alert email, the email address also can be changed.		
Fengnan Yang	1. Jiaxin Li and I figured out that the PMOS has some issue in our circuit and we tried to use a voltage regulator to redesign the circuit. 2. Wrote the reflection assignment 5.	8	66

Gitlab Activity Summary

Nothing to report.