sdmay19-13: Small Equipment Checkout System

Week 3 Report September 18 - September 28

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

For this week, our group began to learn the whole system which has been done by the previous group last semester. We spent a lot of time to understand and tested their work. Based on the testing results, we found they have some error of the design system which the previous group does not fix. For example, in the one-wire system, the LED light is always on and the voltage of locker always keep on high status. Our group added one more meeting during this week to discuss the pending issue and tried to come up with ideas to solve them. Our group members pushed a lot of effort to try to understand the previous group idea of each part of the project. However, some part of that is still very confusing. We emailed the previous design group members about our misunderstanding parts and looked for their reply to help us to understand their design. On the other hand, we scheduled ETG workshop training with our client/adviser to obtain access to the workshop.

Pending Issues

- 1) Find the function of the level shifter.
- 2) Learn how to control on-wire register.
- 3) Learn how to use and control Raspberry Pi
- 4) Figure out why the previous group choosing DS2406P on their design project.
- 5) Figure out why the LED light always on, which is not we want on one-wire system.
- 6) Rebuild the system to solve the issue that the voltage for lock is always at high status.
- 7) Try to remove auto-open function on raspberry pi OS.
- 8) Attend ETG workshop training.

Plans for Upcoming Reporting Period

- 1. Bei Zhao: Continue trying to fix the version problem of React.
- 2. Caining Wang: Learn how to implement SQL database.
- 3. Jiaxin Li, Yimin Wang, Fengnan Yang: Start testing one-wire components, and redesign the schematic of circuit that used to control locker and LED.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Fengnan Yang	 Attended workshop training. Read some research papers about the one-wire system on the website. Practiced using MultiSim/Ultiboard to build a simple PCB layout and soldering it with circuit components and test it. 	6.5	18.5
Jiaxin Li	 Analyzed the circuit design of slave device which used for the one-wire system and found there are two problems on the circuit. One is that the LED is always on, which is not what we want. The other one is the voltage for the lock is always at high status. Tried to rebuild the design to fix those problems. 	6	18
Yimin Wang	 Tested the prototype created by the previous team. Connected the raspberry pi to monitor and started the raspberry pi OS. Found the raspberry pi OS has been set to auto-open the website and lock it, tried to remove auto-open of the website, and operate raspberry pi from the desktop. Attended ETG workshop training and learned about how to use the power tools. 	6.5	18.5
Caining Wang	 Did workshop training. Learned how to use intent to switch between different activities. Learned how to pass informations(like the ID for each box) through putExtra(). 	6.5	18.5
Bei Zhao	 Attended the weekly group meeting to be familiar with what everybody has done in the past week. Began to fix the version problem of previous team's frontend project, since the React tool has upgraded to a new version and the code we have currently have a couple of errors shown up because of that. Worked on the first version of project plan with other team members and wrote 	6.5	18

Senior Design We	kly Status Report
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page 3 of 3

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Gitlab Activity Summary Nothing to report.