sdmay19-13: Small Equipment Checkout System

Week 6 Report March 25 - March 31

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)

Summary of Progress this Report

In this week, our hardware group received PCBs and stared to solder and test them. Then, they find some PCB design issues and made some adjustments such as changed the pmos to the nmos and adjusted the position of the diode and inductor. After made the improvement, they ordered the PCB version 3. For the software group, they modified Server.js file, added new routes that after swipe, it will go to create new record and report handler. Then, they added new file app and header.js.

Pending Issues

- 1. Some size of PCB components are wrong.
- 2. The slave device can not make latch close when working with PMOS
- 3. Because new PCB is not ready yet, we can't test if website can control new hardware.

Plans for Upcoming Reporting Period

- 1. Redesign the PCB.
- 2. Add alarm page to meet new requirement for the website.

Individual Contributions

| Hours | | Team Member | Contribution | Weekly Hours | Total Hours |
|-------|--|-------------|--------------|--------------|----------------|
|-------|--|-------------|--------------|--------------|----------------|

| Jiaxin Li | Soldered and tested PCB version 2. Figured out the latch circuit issue of PMOS and decided to use NMOS to solve that. Figured out that we misunderstand the shape between inductor and diode, and then we redraw the wire for them. Resized the hole for 12V lock and reshaped the outline of it. Designed the PCB version 3. | 8 | 108 |
|--------------|---|---|-----|
| Yimin Wang | Soldered and tested the PCB version 2 and find the following problem: 1. Size of the diode was wrong. 2. Should change PMOS to NMOS Design the PCB version 3 | 8 | 106 |
| Caining Wang | Modified Server.js file, added new routes that after swipe, it will go to create new record and report handler. Added new file app.use for static resource management. Modified header.js so user will not able to go to the old checkout page. | 7 | 109 |
| Fengnan Yang | Soldered and tested PCB version 2. Changed from PMOS to NMOS in order to solve latch circuit issue. Adjusted the position of the diode and inductor on the PCB. Ordered PCB version 3. | 7 | 108 |

Gitlab Activity Summary Nothing to report.