

EE/CprE/SE 491 WEEKLY REPORT #6

Report Period:

10/25/2020 – 11/8/2020

Group number:

21

Project title:

Small Equipment Checkout System

Client &/Advisor:

Leeland Harker

Website:

<http://sddec20-21.sd.ece.iastate.edu/team.html>

Email:

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Team Members/Role:

Samuel Sklar - Circuit Board Lead

Kailin Zheng - Hardware Design Lead

Seth Jones - Integration Engineer

Shubham Chauhan - Interface Lead

Michael Momot - Server/Database Engineer

Thomas Smith - Scrum Master/Architect/Developer

- Sprint Summary : We successfully got the server running on the VM this past working period. We also got the intended final version of the PCB board ordered, and expect it to deliver this coming Tuesday, giving us about a week to get it worked into the system. Poster has been made at this point, and we are halfway done with our Final Report, and have started taking steps to prepare for the demo.

- Past sprint accomplishments : Stories __ were completed

- ❖ Thomas Smith : Created poster, completed first two sections of Final Report, and started on Powerpoint for presentation. Also met with the professor to discuss details of presenting.
- ❖ Seth Jones : Worked on configuring the RasPi to connect to the server and to be ready for the OWFS.
- ❖ Micheal Momot : Production server now using HTTPS. We are now able to view the website from anywhere on the Iowa State network.
- ❖ Shubham Chauhan : Finished user manual for the checkout system. Helped Michael with server stuff.
- ❖ Kailin Zheng : Checked and figured out code or software and digital signal to realize and control the door opened or closed.
- ❖ Samuel Sklar : Finalized PCB and confirmed the order of parts and PCB. Assisted Kailin in door status software.

- Pending issues : These are our issues.

- ❖ Thomas Smith : Need to create a few more diagrams to be included in the final report. Some of those diagrams are dependent on how hardware ends up being integrated into the system.
- ❖ Seth Jones : Have limited time to solder the PCBs when they come in.
- ❖ Micheal Momot : Production website needs to expect the IP/host address of the device connecting to it. This will be our Raspberry Pi.
- ❖ Shubham Chauhan : I don't have experience in the areas that need the most help - integration and hardware.
- ❖ Kailin Zheng : Written code still in the testing phase, it should be connected to the PCB and Raspberry Pi.
- ❖ Samuel Sklar : It's crunch time and I am limited because I am across the country. Time zones don't line up as well.

- Individual contributions

Name	Individual Contributions	Hours this week	Hours cumulative
Thomas Smith	Created Poster, Met with professor, wrote the first 2	13	48

	sections of Final Report. Started on slides and demo material		
Seth Jones	Raspberry Pi config	14	45
Micheal Momot	Configured VM firewall, created services to automatically start backend, HTTPS working	12	40
Shubham Chauhan	User manual and assist Michael	12	39
Kailin Zheng	Figure out the code for make sure system can door opened/closed	12	40
Samuel Sklar	Ordered PCB and parts. Assist Kailin with door status SW	12	49

- Comments and extended discussion : At this point we are riding the wire. Our goal is to get the PCB board integrated and the door mechanism working correctly. If that fails, we will show the system flow up to the PCB board for our final demo.

- Plans for the upcoming sprint : Our future plans are to prepare for the demo, write the proper documentation, and finish our integration.

- ❖ Thomas Smith : Finish Final Report, and prepare the material for demoing. Will coordinate a final meeting with the client, as well as help out around the team as needed.
- ❖ Seth Jones : Continue RasPi config and solder/test PCBs
- ❖ Micheal Momot : Debug production website and investigate door status page.
- ❖ Shubham Chauhan : Debug production website with Michael. Standby for anywhere else I can be of assistance.
- ❖ Kailin Zheng : Work with the test side to make sure the code works on the PCB and Raspberry PI.
- ❖ Samuel Sklar : Standby for Seth and Kailin as they finalize PCB assembly and RasPi config

- Summary of weekly advisor meeting : We talked with Lee about the final touch ups to the PCB design. Once we have the board in, we plan to reconvene with him to discuss the final steps to be taken on the product for completion.