

# Bi-Weekly Report #5

## Summary:

We have focused on transitioning our product to be demoed remotely during this reporting period. This has involved us reworking how we are approaching our integration with hardware. We have a solution and plan, which will be detailed further below. In addition, work has started on integrating different aspects of the full-stack development of the interface users will use.

## Individual Contributions:

Samual Sklar:

- Summary: Focused on designing the mechanism to demo this project without being in person. Worked on breadboard design for the Arduino to tap into a socket that I will create on the backend to send the signal for the door to open. Touched base with teammates regarding the front-end and will assist teammates on the software side where I could be of assistance.
- Hours worked: 9
- Total Cumulative Hours: 36 hrs

Micheal Momot:

- Summary: Worked on Contingency Plan and building backend server with Node.js. Exploring ways to interface with the school's database, will need to communicate with the school on this. Setting up MySQL database with testing data.
- Hours worked: 9
- Total Cumulative Hours: 35

Seth Jones:

- Summary: Updated/organized gitlab repository for team. Contributed to discussion of a contingency plan for the circumstances. Assisting Michael in backend implementation.
- Hours worked: 8
- Total Cumulative Hours: 34

Thomas Smith:

- Summary: Focused on creating Design Document #2, Lightening Talk #3, setting up regular meeting times with the Client due to COV19 circumstances, updating

Trello board, and giving status updates in the form of regular emails with client and this status report. The intention of me doing this is to give everyone else on our team more time to develop the product as deadlines approach.

- Hours worked: 16
- Total Cumulative Hours: 45 hrs

Kailin Zheng:

- Summary: Focus on board design and attach Raspberry Pi to one wire system. Join in discussion of contingency plans. Working on the LED and locker part with Sam and figuring out requirements of the demo for the client.
- Hours worked: 7 hours
- Total Cumulative Hours: 34 hrs
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Shubham Chauhan:

- Summary: Working on the UI from the past teams already implemented code. Participated in the contingency plan. Figuring out a way to test the previous teams software without the access to the instrument.
- Hours worked: 5
- Total Cumulative Hours: 37

### Pending Issues:

The largest issue we have is demoing our product in an effective manner to the board and our client. Due to our lack of access to our physical product, we are making due by using a Raspberry Pi with lights to substitute our product. We also are no longer able to meet in person for our meetings or to collaborate. This is impacting our hardware portion of the product, as the people in charge of hardware would really like to be able to meet to work together on things, but cannot. While steps are being taken to mitigate this impact, the impact it is having cannot be ignored.

### Plans:

As mentioned above, we are planning to demo our product by using a Raspberry Pi with lights to simulate our locker. Each light will correspond to a different locker. When said locker is opened, the light linked to that locker will turn on. Likewise for when the locker is closed. Interaction with the Pi will be accomplished using the client interface.

We will add a temporary command line that the user will be able to use. Commands put into this command line will be used by the backend to keep track of inventory, open lockers, and check user eligibility. During the summer and next

semester we will focus on integrating our existing system with the hardware, since we will have access to it again hopefully at that time.

Website:

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