

Dear Kristian,

The following is the status report for JnJ's Clockwork:

### **Recent and Current Progress**

Johnson

Managed to get all the python files in the raspberry pi to start up upon booting the system.

Organised the python files needed for the hardware within the raspberry pi. Assisted Juan with production of enclosure, and also assisted Jordan with debugging the alarm functionality. He is now planning on picking up the display board.

Jordan

Fixed an issue where the amplifier won't trigger the alarm when it is supposed to. Worked on the alarm layout within the android app. Added a volume feature that can control the hardware's alarm. Finished the alarm python file where it would receive the hour, minute, and volume from the application. This was done by sending values to the firebase using an array list and volume bar. Has full database connections with the amplifier, alarm, and application. Assisted Juan with production of enclosure.

Juan

Updated the project's GitHub to represent its current version of android code. Juan worked on CorelDRAW to create the case outside of class and printed it in the prototype lab. He progresses to work on the report in terms of the app build details.

### **Problems and Hyperlinks**

An issue that we encountered was with the enclosure. While assembling the case numerous times, slot sizes were not the same, and slot positionings were not corresponding lengths.

After correcting the dimensions, another problem we encountered was while assembling the

case, the mono amp was interfering with the upper corner of the case. The case had then been made taller. Another problem we encountered was the alarm's functionality. While attempting to make a file for the alarm, the alarm would only play once without a continuous loop. The solution to the problem was to create a while loop that was always true. When the alarm would reset (hour = 0 minute = 0), the alarm would go off during midnights due to the 24 hour clock format. This was solved by setting the hour and minute value to -1.

### **Financial**

No more components are needed to be purchased as the project is completed.