

Dear Kristian,

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

### **Recent and Current Progress**

Juan

Printed out the PCB, soldered, and tested with all connected sensors. The next step is to create a case given that the PCB and sensors are all connected to the Pi, and finding dimensions for the alarm case. The dimensions of the alarm box are not yet determined, but will fall under the maximum dimensions of  $12 \frac{13}{16}'' \times 6'' \times 2 \frac{7}{8}'' = 32.5\text{cm} \times 15.25\text{cm} \times 7.25\text{cm}$ .

Johnson

Got the temperature sensor to connect with the database. He is now managing to add more python code into the data. Johnson is now working on displaying the temperature readings that are stored in the database to the application itself and also sending timer instructions to the raspberry pi.

Jordan

I got actual sound coming out of the speaker through the amplifier. An alarm sound has been emitted . Currently working with Johnson on triggering the alarm sound from data taken through the database by using python.

### **Problems and Hyperlinks**

A problem occurred while soldering the PCB. We were measuring each pin and via with an ohm meter to identify its connection, and we came upon some vias that were not soldered accordingly. Another PCB had to be printed and soldered, while acquiring more pin sockets

from the prototype lab. When the 7-Segment digital display was connected to the PCB, a problem occurred where the i2c would detect every single address from the sensor. A 4.7k ohm resistor was implemented into the IO slot to acquire the specified address. However, the same situation applies where the sensor displays every single address from the sensor; this only happens for the display screen and not the other sensors.

## **Financial**

Nothing has been purchased lately as we retrieved pin sockets from the prototype lab.

More components may be purchased in the future depending on current circumstances.