Team: P19433 **Engineer:Deryck Velasquez**
Phase 8 Plan

What were the outcomes of the prior phase?

1. **What did I plan to do?**
    a. Program the Teeny along with designing the UI for the User Display
    b. Modify and test the new electrical system, replacing the SSR and heaters, and installing the power converter
    c. Continuously improve and debug the programmed devices to ensure accuracy and precision
2. **What did I actually do?**
    a. The Electrical system was tested, all components replaced and or modified. The new insulated wire was made and connected to allow for the height adjustment of the jack. The IR sensors were tested and proven functional. The teensy was programmed and re-coded to meet temperature requirements. The next phase is to install the display for user interaction and control.
3. **What did I learn? How were plan and reality different?**
    a. I learned that a few minor tasks add up and can be super time-consuming. The design of the electrical system was pretty simple and modifying it was easy. Creating the wires were also simple but due to the quantity, it took longer than expected. None the less, the system came together and was tested.

Team level goal for the next phase

Our goal for the next phase is to complete the wiring of all heaters and other electrical components. We will then review the test procedures and make adjustments to the design if necessary. The door materials will be purchased and assembled, and insulation will be installed with washers and bolts. The team will continue to work on the technical paper and Imagine poster to receive feedback before the deadlines. The team hopes to have a fully functioning machine with recycled sheets during this phase.

What do I plan on doing to ensure that my team has a successful review at the end of the next phase?

1. Order a new IR sensor to replace the one that was lost (<1 hour, week 1)
2. Install screen and write display code (2 hours, with Nick)
3. Continue programming and testing Teensy (throughout phase, with Nick)
4. Obtain a protoboard to set the Teensy and electronics in permanently (1-2 hours, with Nick)
5. Finalize wire setup for cable management and permanent use (1-2hours, with Nick)
6. Install IR sensor attachment on the frame (1 hour, with team)