

Team: P19433 - Lost in El Sauce

Engineer: Deryck Velasquez

Prior Phase Outcomes:

I planned to research the Heating/Cooling System along with the Thermal Feedback Control System for the Plastic Bottle Chip Melter. As well as Heat transfer for effective heating of the plastic chips.

I researched the physical and chemical properties of multiple polymers which are found in El Sauce. As well as contribute to the continuous update of the Edge page and the Stakeholders slide about the contributions and benefits the device will have on the community.

I learned more about multiple plastic properties which will be useful in the upcoming phases for melting the plastic material. With the previous teams research and documentation i learned about the design and ineffective heating aspects which they later made into a focus table of priorities .

Team Level Goal for the next phase:

Our team's goal for the second phase is to break down the design of the melter into subsystems so that we can better understand how we can provide the necessary functionality for the melter. This will also help us determine more specifically where we are picking up in the design from P18433.

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

- Meet with Nick to review heating system and thermal controls research (2 hour, week 5)
- Meet with Team to discuss and test the device (2 Hour, week 4)
- Research effective heat transfer methods for effective plastic melter (1 hour, week 5)
- Meet With Controls and Thermal Dynamic Professors to discuss cost effective PIDs and Thermal effective material (1 hour, week 6)
- Find a 240V AC power outlet on RIT facility to power device (1 hour, week 4)