Saint Gobain Performance Plastics is a producer of engineered, high-performance polymer products that serves nearly every major industry around the world. This capstone project took place at the Saint Gobain facility in Taunton, Massachusetts. The facility focuses on original equipment manufacturing and shipping of products to medical device producers and pharmaceutical companies. The core product that the Taunton facility ships at high volume is intravenous (IV) therapy tubing. Currently this tubing is cured, measured, and cut on a variety of extrusion tower support structures that can be unsafe and do not have a standardized design.

This team was tasked with designing a new extrusion tower structure that can support the current curing ovens, measurement/cutting systems, and collection apparatus. The new design was required to be safer, easier to move and have the ability to adjust certain settings such as size of the heat deflector iris from the ground instead of manually using a technician on a scissor lift. At the conclusion of the design process, the customer was presented with a full drawing package, bill of materials, weight measurements, and materials selection. This summer, these documents will be used to construct the new design for implementation at the Taunton manufacturing facility.