

Project Title: [Inline Wire Pre-Coater](#)

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Area: [Mechanical Engineering](#)

Sponsored by: [Fort Wayne Metals](#)

This project includes the designing, building, and testing of a new Inline Wire Pre-Coater for the wire drawing process. The Inline Wire Pre-Coater's function is to act as a means of placing pre-coat on wire along with drying the pre-coat before the drawing process. This new inline pre-coater will include a tank for storing and heating the pre-coat solution, a means of moving the pre-coat into the coating areas, and will also include a drying section to solidify the pre-coat onto the wire surface. The new design will also need to incorporate a smaller footprint than commercially available units and will need to accommodate a variety of wire sizes and a range of drawing speeds. Additionally, this new inline pre-coater needs to be portable, user friendly, and safe to operate.