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Industrial Brush Coiler Attachment

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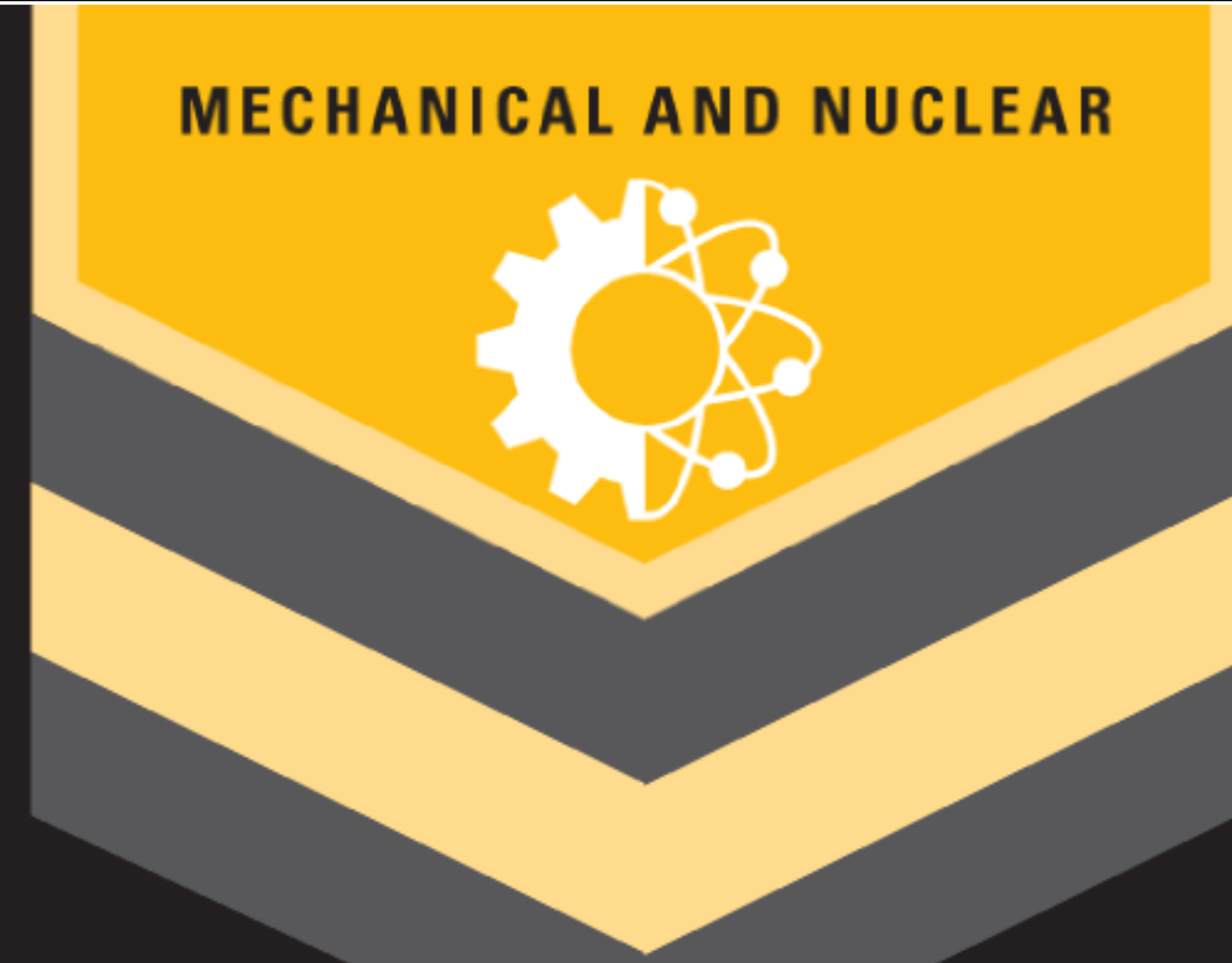
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Industrial Brush Coiler Attachment



Finished Attachment



Project Purpose & Description

This project focused on the development, design, and fabrication of a coiler for external spiral brushes. The procedure used before the beginning of this project was not efficient or effective for large style brush sizes and inner radii. The goal achieved focuses on the design and completed fabrication of a functional coiling attachment that allows for a more effective means of completing larger external spirals.

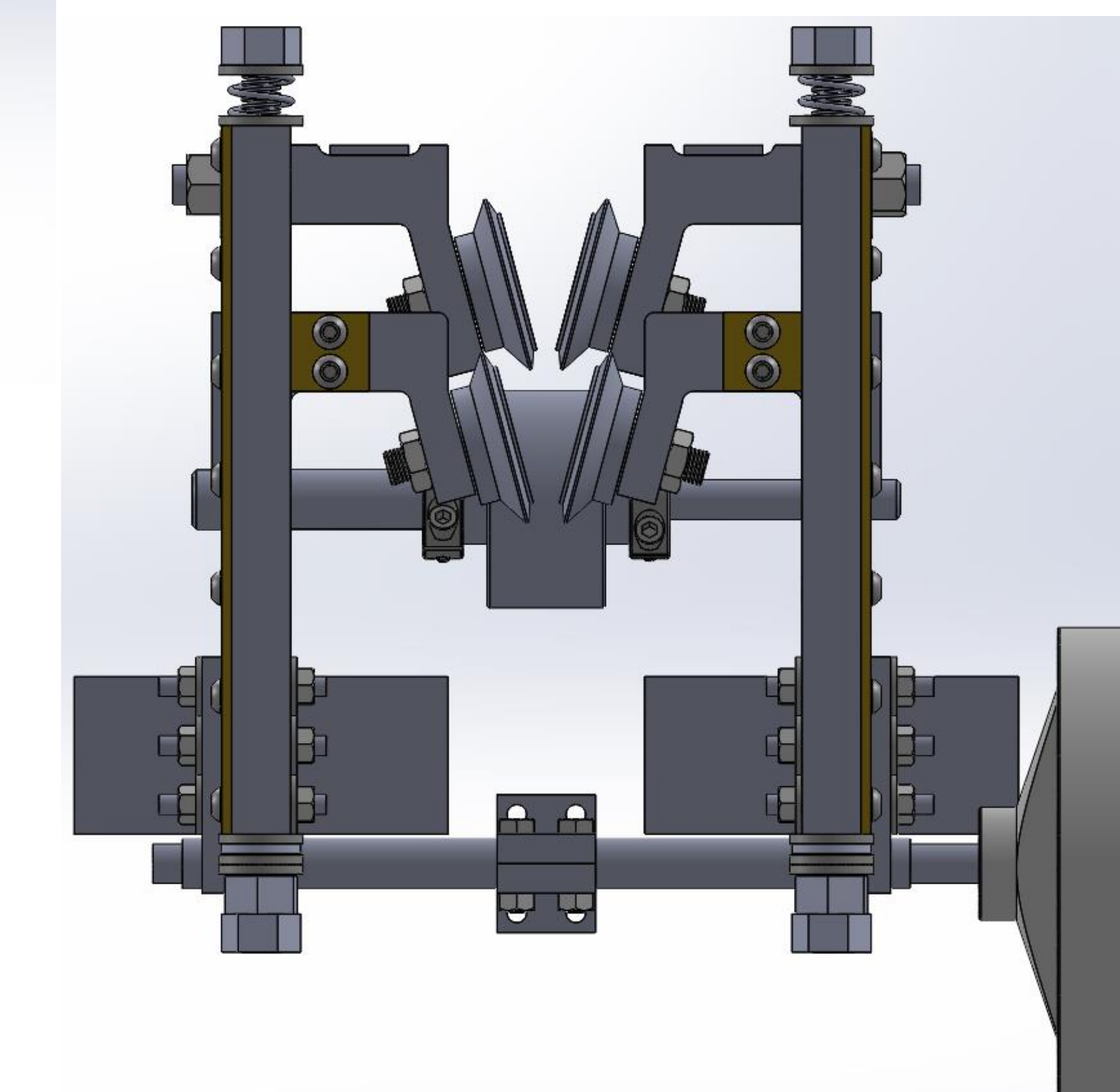
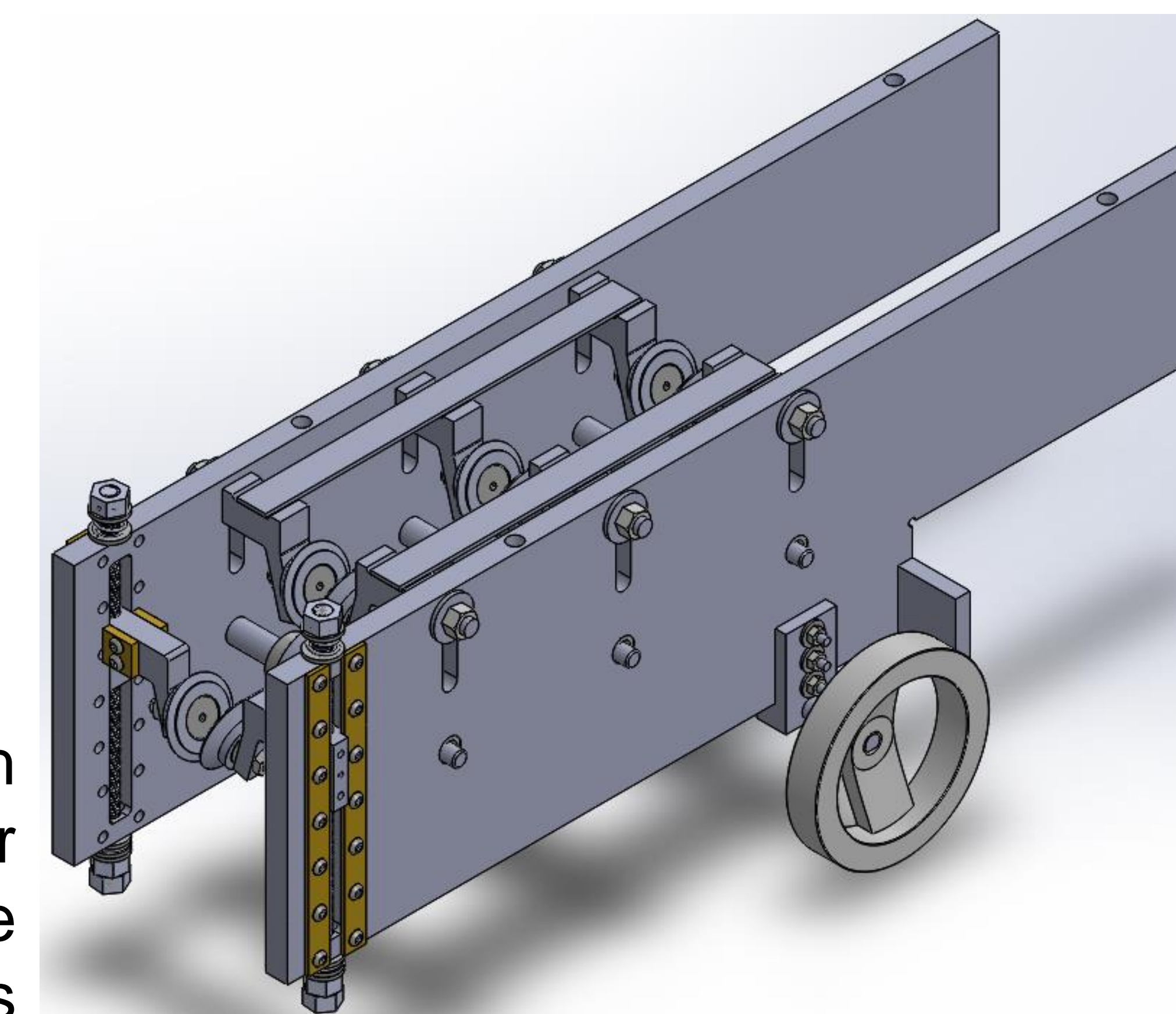
Process and Design

As the design progressed it changed from a new machine to an attachment for the current machine in place, with a focus on larger brush sizes. The design went through many iterations before the finalized design was manufactured.

The coiler attachment works by initially allowing the brush to travel farther away from the table to prevent larger radius brushes from interfering with the table mechanisms. The bearings allow for smooth movement as the angled rollers keep the brush in place while adjustments can be made to accommodate various brush tape sizes. A final set of angled rollers are used to apply a force that bends the brush tape creating the desired external brush coils. A digital reader on the side of the machine will measure the distance traveled by the last set of angled rollers. This data can be used when replicating another coil with the same inner radius.



Sealeze is a local company that makes a variety of industrial brushes. These brushes have multiple applications, such as preventing debris from being caught in moving parts, aid in removing static from machines, fill space from gaps between machines and parts, and clean conveyor belts.



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