

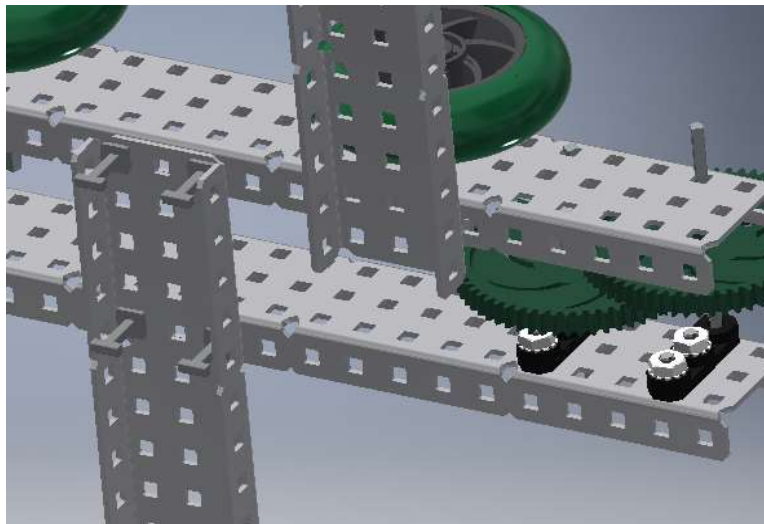
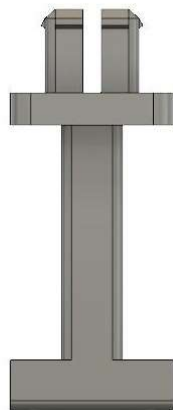
Alignment Pin

Introduction

This part was created in hopes of solving the problem of misaligned metal and excess friction with various designs and parts like flywheels, drive trains, high performance lifts, and many other designs.

Explanation

This part is intended to connect and perfectly align two pieces of metal by being inserted through the square holes. It is designed for the purpose of prototyping as it can temporarily replace screws and reduce prototyping time. This part can also be used while building to perfectly line up two pieces to in order to reduce friction.



Software

We used fusion 360 2018 version 2.0.5119 to create simple 2D sketches and extruded them. Before creating the piece, we calculated the dimensions needed by measuring metal pieces and researching the various dimensions.

Conclusion

We learned that using Computer Aided Design is not as complicated as it first seemed, it will be a very useful tool for visualizing future projects and ideas. CAD is an invaluable tool for a Vex robotics team as it saves time and resources that would have been used to prototype the robot in real world parts. As many of us plan to pursue a career in engineering, we believe CAD will be very useful in designing and planning projects, as well as saving time and resources.

