

Introduction

The Six Slot Motor Controller Holder was designed with the intention of improving wire management on VEX robots. Too often you see teams with motor controllers and wires hanging from robots or tied into a bunch making it difficult to work with and risking damage to the motor controller.

How the part would be used

The Motor Controller Holder can be used by snapping six motor controllers into the slots. Movement of the motor controllers would be prevented by the retaining walls on the sides, the angled portion of the walls, and a rubber band that is able to wrap around the entire assembly and fit into slots designed for the use of a rubber band. This entire assembly can be fastened to any standard VEX hole pattern.

How Inventor 2018 was used

Autodesk Inventor 2018 was used to design, assemble, and render the Motor Controller Holder. The Sketch, Extrude, Fillet, Hole, Mirror, and Rectangular Pattern tools were used to create this component. Parts were converted to an. stl files and were 3D printed.

Conclusion

I have used and will continue to use Autodesk Inventor in the future. Having the ability to create a model of the robot is very beneficial when working on new ideas. I think that the use of CAD design will be very useful in the future to design and create visuals of products.