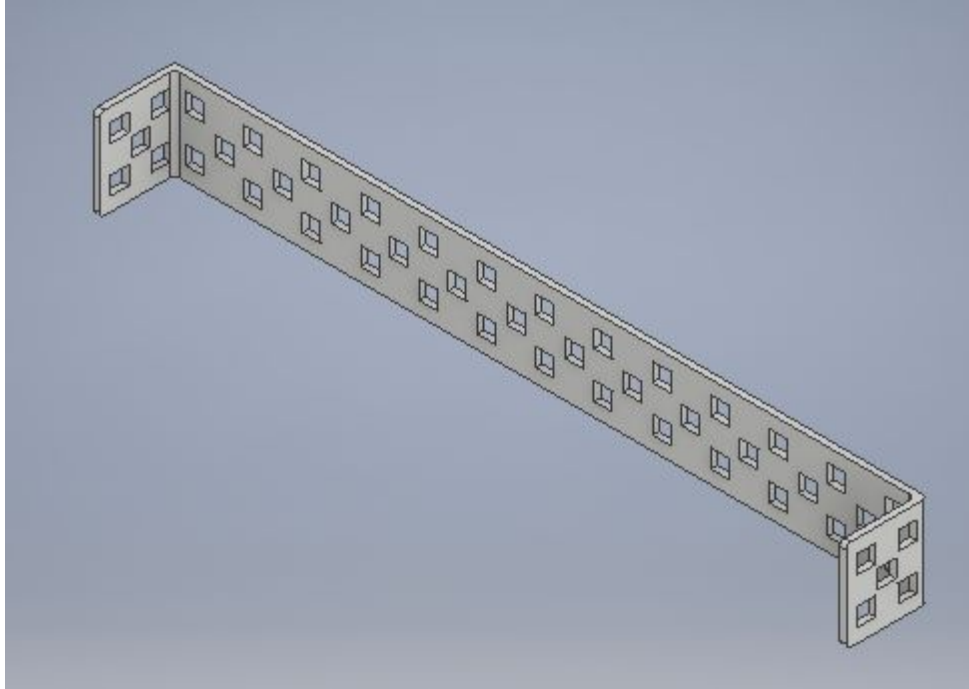


Vex Online Challenge: Make It Real

By: Wooster Robotics 44691R

Aka Rawr Woo

How this part was able to come about is whenever my team (Rawr Woo) and I (Jeffrey Manson) were building our robot and came across a problem. The problem was that out of all the vex metal that we had, we didn't have the right piece for putting together part of the robot. Around a month after we came across this problem that we had, we saw the Vex Online Challenge called Make It Real. It sounded like a great opportunity and perfect thing for us to do. We decided to start designing the Vex part in Autodesk Inventor and my team would get all the calculations that I needed while I was plugging in numbers and putting together the part. This part that we were creating was initially thought of by the team to be able to hold certain parts together and be able to be manipulated to fit certain parts at different angles. For example of where the part would fit in my teams robot, the ball shooter needs to be at a certain angle. So, I would be able to bend the unique ends of the custom part to the angle that the ball shooter needs to be at. I used the program Autodesk Inventor Professional 2019 and in this program I used the rectangle constraint to get the certain size of rectangles and squares. I also used the mirror constraint to allow myself have the same holes on each side. I learned a lot about how to use even more of the options that Autodesk has in its program. I would most definitely use Autodesk Inventor in future projects such as part designs or for products that I would be able to 3d print. This software is able to help you if you are on a competitive robotics team if you design a custom part to fit your robot, then you are able to either 3d print or lazer cut the part out to use it on your robot. I think that 3d design would be able to help me in my future career because I want to be an engineer. For an engineering career I might need to design the certain parts that I would need for a product. Also I might need to design parts to fix machines and more around the workplace, so I would need a 3d design software for all of these tasks.



This is a picture of the part that my team and I have created for the Make It Real Vex Online Challenge.

Members Of Rawr Woo: Jeffrey Manson, Lauren Segura, Donnovin Short, Cassidy Burke and Ashlee Hummel