

The Claw

The reason I made this piece.

I made this piece because it is a simple yet elegant design that could make it easier for people to build a specific function for a robot. The claw. This claw will be light, so you do not have to worry about it overweighing your robot. You can also place a shaft on the claw. This claw will also have holes for where the pegs could be as well, to attach the claw onto the robot or add pieces if you want. It will be sturdy, so it will not fall off the robot. This claw will be a whole piece so do not have to worry about it breaking apart or one certain piece of the claw falling. This claw also prevents the usage of many parts on your robot. These are many reasons why I made this piece.

How this piece would fit in a robot design.

This piece would fit perfectly in a robot design. It will be especially useful for this year's challenge. It can be attached anywhere on a robot (the front or back of the robot); it can pick up things or push them in certain directions.

What I learned from this project.

I learned many things from this amazing project and challenge. For example, I learned how to 3d model using tinker cad and learned how to use Fusion 360! (At first, I was not very familiar with 3d modeling) I also learned that making mistakes and things not turning out how you wish they would be, is okay and it could make things better for you. In other words, failure is just another step closer to success. In addition, I

learned that always try hard in everything you do, after you have tried hard you will see it was all worth it in the end.

How I used Fusion 360/ tinker cad to create my new part.

I first sketched/ drew the first claw part. I use the hole feature to make circle and square holes, for the pegs and shafts to go in. Then I did the same thing with the second claw part and made a thick line that connects the two parts as they are now, a whole claw/piece. And I finished.

Will I use 3D design software in the future?

I will use 3d design software in the future. I will use it to make 3d models of my robot, and to get a visual picture of my ideas.

This software will help me if I am on a competitive robotics team.

This software will help me if I'm on a competitive robotics team because you can do so many great things that would give you and your team a better chance of winning. You can model your robot ideas. You can see your robot from a different view giving you a better vision of how your robot is and what you need to improve. And instead of taking the risk of changing something on your robot that you might regret or could ruin your whole robot, you can first change things on your model and see if the changes work out on the model version of your robot. There are many more advantages from this software.

How learning 3D design software will help me in my career path.

Learning 3d design software is an opportunity and will help me in my career path. I want to be a robotics engineer. When you are a robotics engineer you will need to make models of your work and to see how

things may look. So, learning 3d modeling will be very useful for me and my career path.

This online challenge was a great adventure, thank you for letting students in robotics like me, be able to experience this great opportunity. And to the judges of this competition, I hope you like my piece.

