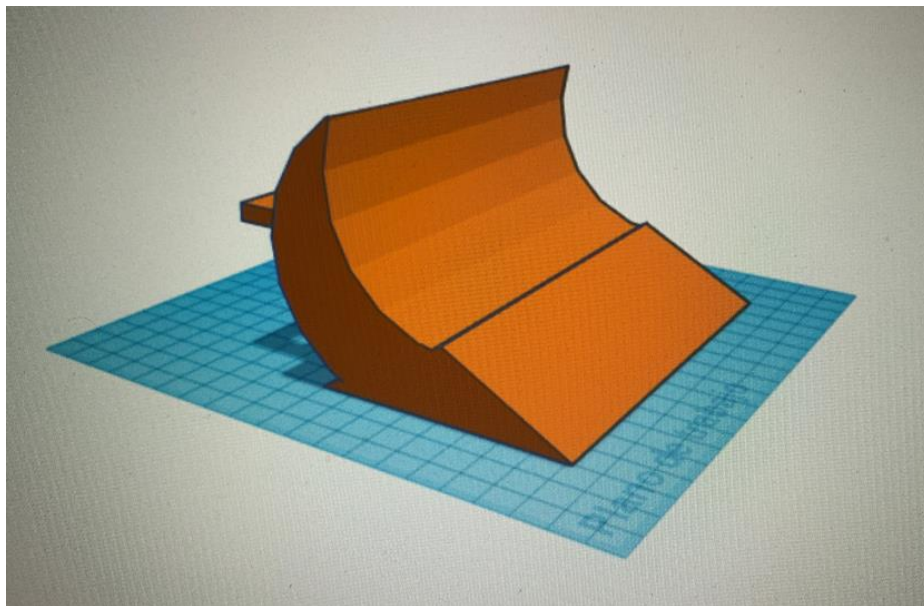


VEX custom piece

November 2020

Presentation and context

- This part will be utilized so that the robot can move components to the objectives and don't let the opponents have them and score points. It is planned to be a ramp that serves the function of a broom to move the objects, it would be attached to the back of the robot with a support built in the piece.



Final Report

1. Introduction

- We created this part so that the robot pushes components to our side of the pitch and don't let the other team grab them. We improved the transportation of the objects because while the robot is grabbing some of the components, it can push some others with the piece and let the opponent have less chance of scoring points.

2. How the new part would be used?

- The part would be attached to the back of the robot with a support built in the piece, the only part needed are four screws to finally attach it to the robot. we chose to put it in the back because the front side of the robot occupies all the action made by the machine, and we wanted the back side to have a good use

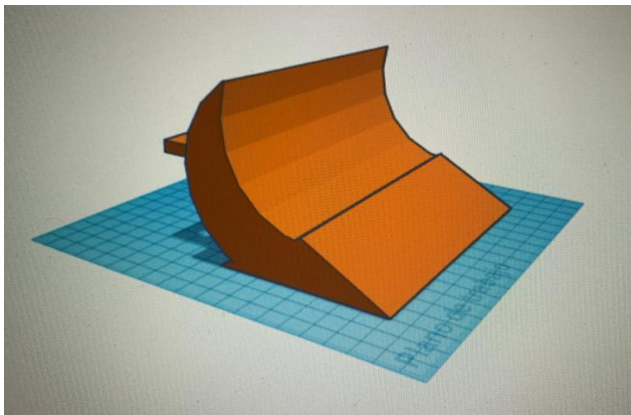
3. The software

- We used Tinkercad and utilized various shapes that the site provides, we put them and mold them in the way that we wanted which is a convenient form to drag the objects and we combined them to make a singular piece.

4. Conclusion

- We learned to use the design software as a site to use our creativity and make custom pieces for robots and many other things. We plan to use this in the future to keep inventing parts with my imagination that we think are useful to the robot. The software helps us to take advantage of it to create more pieces that are helpful for the machine. We think that we would use this in my career because some of us want to study engineering and we can build many things this 3D design softwares.

Images and videos



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