

# GALEN VEX Team

## 48327W

Make It Real CAD Engineering  
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# The GalenVEX Slider

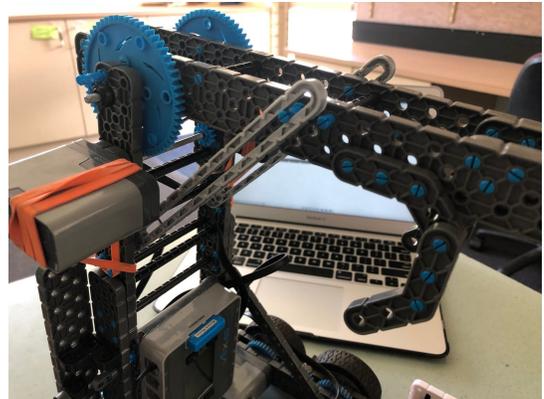
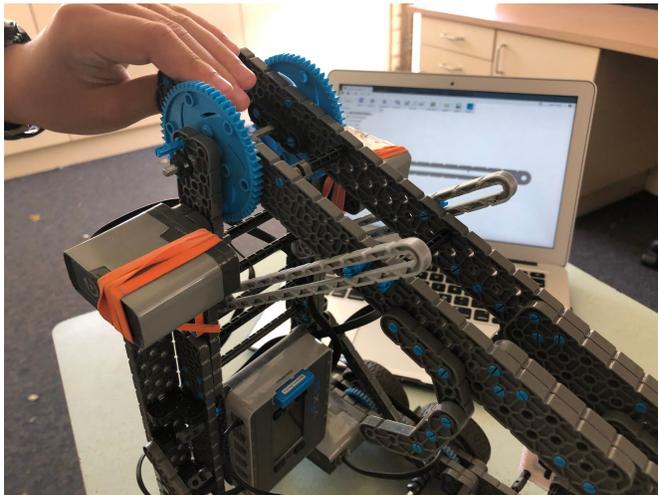


We are Galen VEX IQ 2 (48327W), and we are going to VEX Worlds 2019 after winning the Excellence Award, Skills Challenge and runners up.

### **Why did we design this part? “The Galen VEX Slider”**

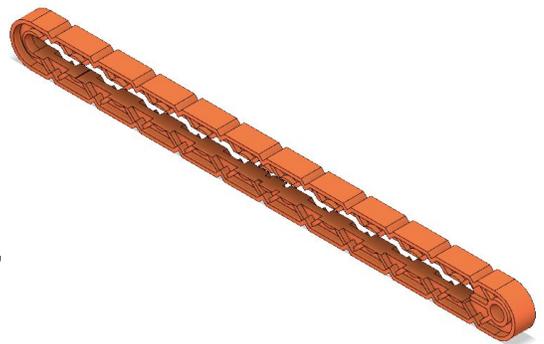
We created this simple piece for our robot because we realised that our arm was very flimsy. We thought about how when the arm moves, we want the piece to move as well, so we took out a line on the piece so the pins can slide along it as the arm moves.

The new piece will be used to make the robot more stable. It is to be used for the claw or moving parts that are loose or flimsy and need to be strengthened. It acts as support for the arm, and is like a train piston.



The program that we used to design this piece was Fusion 360, and we learnt how to use it through the Fusion 360 workshop that our teachers set up for us with Sarika Powle from Autodesk Australia and Anil Chauhan (Fusion360 expert) who skyped in and gave us the lessons over 2 days.

We tried a few different designs before settling on this piece. We discovered that some of our previous designs didn't work because they weren't the right size or they did not fit the needs of our robot. We decided to modify an existing VEX piece, as we are beginners and we figured that a small modification would be what we needed.



When we were finally happy with our design piece we then used an extended +2 3D printer to print this piece.



From this project, we have learnt how to use Fusion 360, and have improved our 3D designing skills. We will definitely use 3D design software in the future, most likely to design new pieces for our robot.

