

Engineering Team
Project 2

Title: Robot Designs

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IT/STEM Tools Used: VEX Robot and Easy C

Project Overview: Robotics is an exciting way to incorporate science, technology, engineering, and mathematics (STEM) education into the classroom. The purpose of this project was to determine which design or mechanism is best suited to grasp, manipulate and place 3” tubes onto a goalpost in the VEX game “RoundUp”. Using the components from a basic VEX Robotics kit, a chassis is built. Three different designs (scissors, claw, elevator) were then simulated on AutoDesk CAD programs to determine which would be best suited to grasp, pick up and place 3” rings on goalposts consistently. Prototypes were then built and tested. It was determined that the claw design was the most consistent and was the most efficient to build.