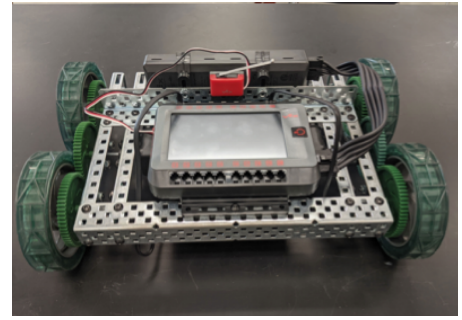


Introduction

Welcome to Hildebrand Robotics. As a newly hired intern, your first day is already turning out to be a crazy one. First, the phone lines went down and you do not get any cell service in the building. Then, a suspicious package was found in the building. With all the more experienced engineers out to lunch, it is your job to build and program a robot that can have a camera placed on it to investigate the package. The hallways are narrow so staying on course is critical. Your colleagues are counting on you!



Equipment

- Engineering notebook
- Laptop computer
- Pencil
- VEX kits

Procedure

Your task is to use directions to build a mobile robot that can follow an algorithm to drive through a path. You must follow the following criteria:

- The structure of the Driving Base must be rigid, sturdy and hold mechanisms in good contact. It must be built entirely from VEX parts using the directions provided.
- The Driving Base must include a touch switch to start the program and an LED to act as the camera with “recording in progress” printed on the screen of the brain. It needs 2 motors to control the four wheels.
- The Driving Base must be able to complete the path within six class periods.

Using the directions provided and your knowledge of writing programs using VEXCODE recently completed in class, build a solution to this scenario. Complete the Design Brief. The criteria/constraints, rough and initial sketches, and decision matrix are already completed for you. You can test your prototype during the building process.

After evaluating and presenting your final prototype, submit the completed Design Brief (one per team) AND each team member submits the Conclusion questions on ONCOURSE.