

Engineering Lab

Sentry Simulation Level Three

Challenge Description

You completed the Level One and Level Two Sentry Simulation engineering labs. In Level Three, your robot must recognize obstacles in its path and stop until the obstacle is removed. As soon as the robot sees the obstacle, it must send a signal to base (your computer). When the obstacle is removed, the robot needs to continue to patrol around the area.

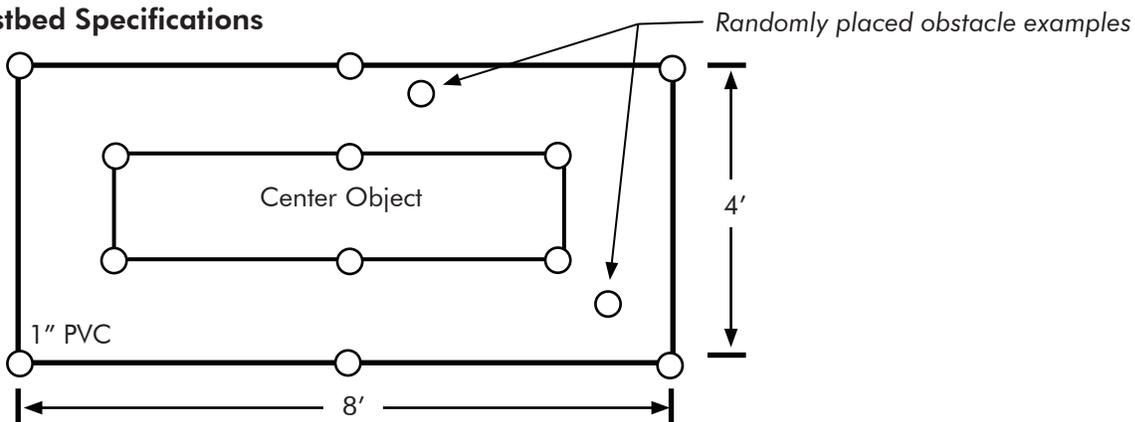
Guidelines:

1. When an obstacle appears in the robot's path it must send a signal back to base. Consider changing the value of a variable, which can be displayed on the ROBOTC Global Variables debug window.
2. It must stop when it sees the obstacle and then resume when the obstacle is removed.
3. The testbed will have 1" diameter PVC posts at the corners of the center object and the 4'x 8' testbed; if you bump a piece of PVC or leave the testbed your robot is disqualified. (see the diagram below)

Materials Needed

- Twelve pieces of 1" diameter PVC
- A couple of objects for obstacles
- A VEXnet connection between the PC and robot

Testbed Specifications



Note: Diagrams are not drawn to scale

Describe how you solved the problem. Be specific. Use another sheet of paper to describe your solution. Place this in your Engineering Journal when finished.