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*A-Mazing-Robots*

The purpose of my project was to program a robot to follow a maze by modifying the Lego Mindstorms Line Follower Program. What the Line Follow does is follow a simple black line; I wanted to program my robot to follow a white space in between two black lines in a maze. In addition, I wanted to program my robot to stop when it sensed the color at the end of the maze.

To build the robot, I used the original Line Follower robot design, but modified the color sensor to respond to white and not black. Also, I programmed the robot to make shaper turns. To build the maze I used: red duct tape, black electrical tape, and a laminated piece of white paper. Testing and retesting was used to program the robot.

My engineering goal to build a robot that was capable of following a maze by modifying the Line Follower program in Mindstorms NXT was successful. Although the robot was capable of following the maze without flaw, thus far I have been unable to program the robot to stop on red. Research is ongoing.

In future research I would focus on programming the robot to follow a more complex maze with more turns and possibly figuring out how to get the robot to follow a maze were the lines cross.