THE MAZE CHALLENGE

Exercise. The culminating exercise of our brief introduction to robotics is the Maze Challenge. Your task is to sketch out a maze on a small piece of paper. You may draw anything you like, but your maze should have at least a few twists and turns. Once I approve your sketch, you may draw it on a large scale (on a sheet that is 1.5x4 feet long). Your goal will be to write a sketch to get your Bot to navigate from the start to the end of the maze successfully.

Grading. To receive full credit for this project, you must demonstrate a successful navigation of your Bot before the end of the last class of the semester. In addition, you must submit your code with explanations of each step. Also attach your initial sketch of the maze to the back of the code.

Notes. Here are a few constraints you should be aware of. It is important to have a marked starting position for your Bot on the maze. It not, the rest of your program will not execute correctly.Y our maze shouldn't be too trivial; at the same time, I would recommend not making it overly complex. Do not use the battery power because the supply diminishes after a few uses. You will have to have your Bot tethered to your computer for it to receive power. Therefore, keep this in mind when designing your Maze. Avoid running the maze directly on the floor as the surface is uneven and grabs differently each time. Instead, your maze should be on a piece of cardboard or the same table every time. Good luck!