PROJECT DETAILS

Create a Line Follower Robot

Introduction

In this project, you will create a line follower robot which will follow a black line autonomously. That means, after you place it on the black line, it will automatically follow the line without human intervention (of course except starting/stopping the robot).

You might not have one of these black-line map yet, we suggest you make one using a big white canvas and black electric tape/marker. Alternatively, you can also print the map by googling! We noticed there are all sorts of maps design available freely online. But please make sure your robot need to turn some corners or going through some curves instead of just going through a straight line.

Project Requirements

Your project requirement will be reviewed against the project marking scheme. Please take a look at the marking scheme before you submit your project.

Project Submission

Finally, you will need to submit your project for reviews. Your submission should include the following parts

- Project Report – a short (1-2 pages) report documenting the design of your robot. Your report should include the following parts:
    - At least 1 critical hardware design decision with explanation
    - At least 1 critical software design decision with explanation
    - Summary/description of the algorithm or logic you used
    - Room for improvements or limitation of your robot
- Robot Program – Please submit your program with the steps to open the program (what software I will need to install and where to get it). If the software is not freely available, you can also consider including some screenshots of your program so we can review your software implementations.
- Three photos of your robot from different angles.
- A short video clip showing your robot going through the track for at least 1 loop.