

Experiment no 2 for EE324: Control Systems Lab

PID Control of a Line Following Robot (Spark V bot):

Target:

Design and implement a PID controller for the Spark V robot to make it follow continuous lines (papers with printed sample lines will be provided) on the ground using the sensors provided on the robot for this purpose.

The track has to be traced within **30 seconds**.

We will provide a sample source code (which will move the robot in all directions sequentially and display sensor values on the LCD) to start you off. The TAs will show you how to load and initialize such programs on the Spark V. You are required to read the Spark V manual (hardware and software) provided and AVR programming guides so as to program the line following feature. Line following code for various programming languages and platforms are easily available on the Internet. You are encouraged to refer them to get initiated into this domain.