

Path-Seeker Robot

(using ATmega8 microprocessor)

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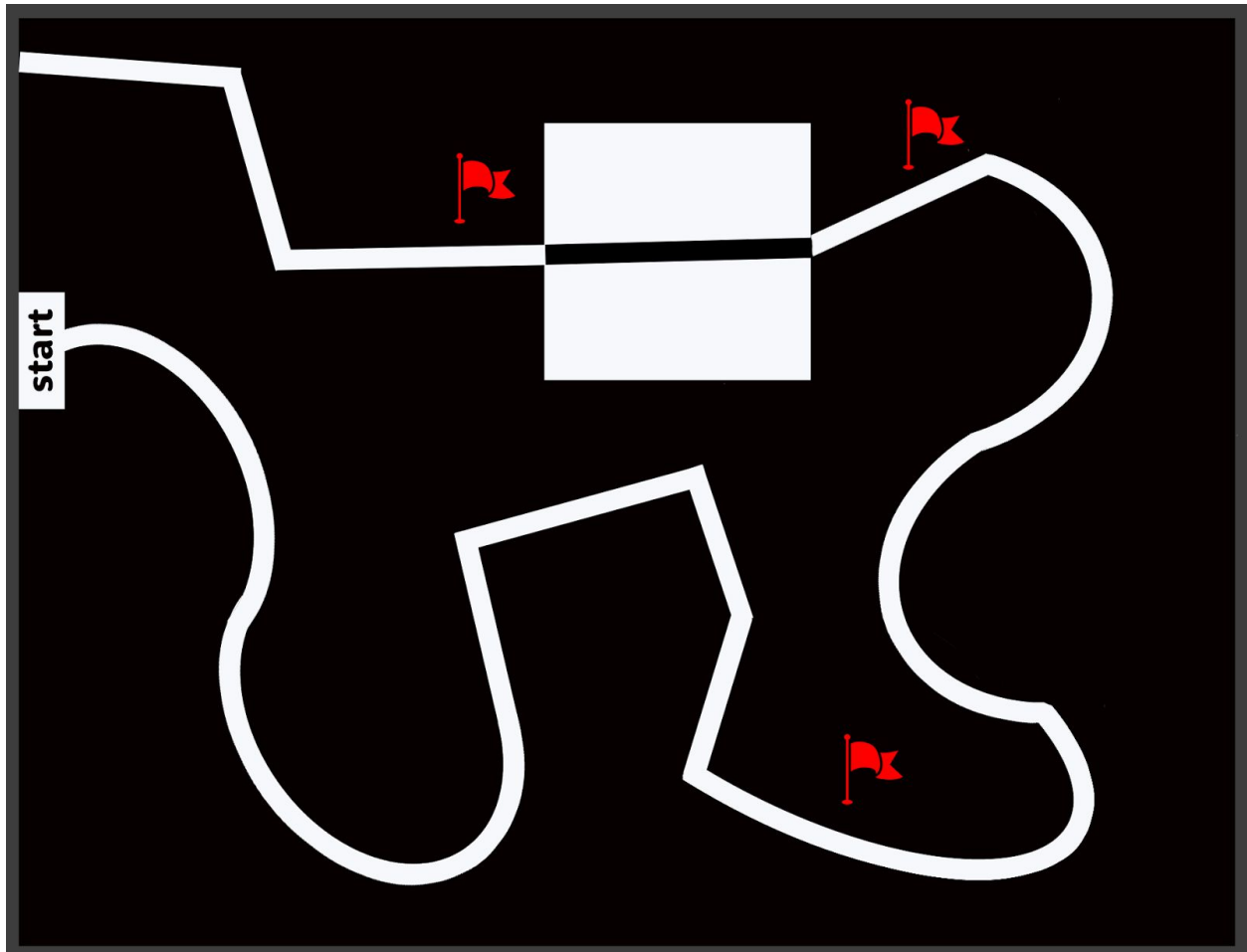
(B.Tech First Year)

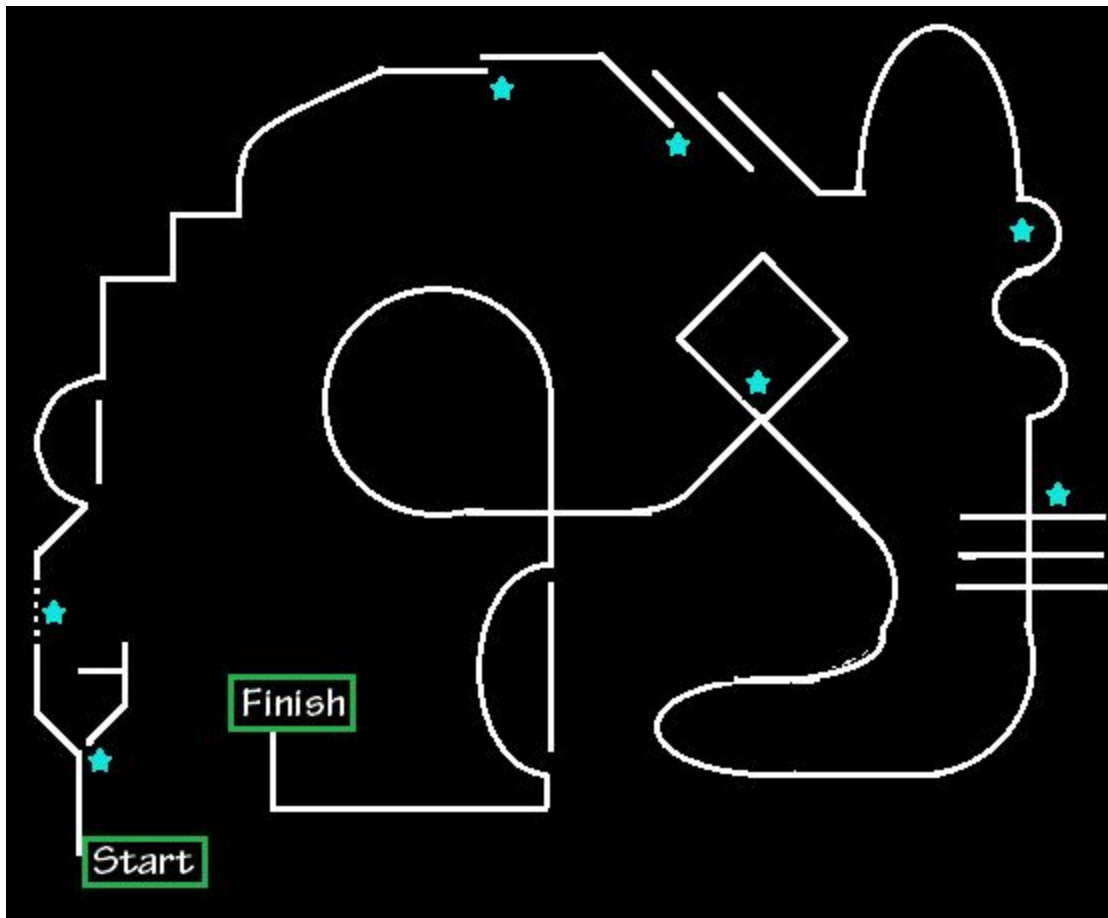
Overview

A completely autonomous robot which can follow both white and black lines depending on the background color. Robot is able to switch between following white lines in black background to following black lines in white background in between the run. It is also able to find the path if the lines are discontinuous.

Goals

1. The bot will start following the line from the starting zone.
2. There will be different checkpoints in the arena.
3. The tracks are as follows:





Specifications

- The robot was able to fit inside a box with dimension of 250mm X 250mm X 250mm(lxbxh) and weight less than 2 kg.
- The machine used only mechanical power converted from a source of electrical energy.
- The machine was fully autonomous i.e, no manual control was present.
- Only 3 IR sensors were used for path detection.

Milestones

1. Completed the first map in 29 seconds, with no restarts.
2. Completed the second map in 52 seconds, with one restart.



3. Finished 4th among 20 other colleges in Advaita(tech fest organised by IIIT Bhubaneswar).