

Course Chaser(Line Follower)

Introduction:

Line follower is an autonomous robot which follows either black line in white area or white line in black area. Robot must be able to detect particular line and keep following it. Over the years it has been one of the most interesting field of robotics.

Now it is your turn to make your bot follow the line which takes you towards triumph.

Specifications:

- Maximum size of a robot : 25*25*25 cm,
- Maximum weight : 3 kg,

Note: Dimensional and weight limits for robots shall be strictly enforced. Robots will have to pass inspection prior to competing. The robot has to be completely autonomous. Once a robot has crossed the starting line it must remain fully autonomous, or it will be disqualified.

Objective:

Make a black line following robot. The time taken by the bot to traverse through the course will be one of the concrete criteria for determining the winner. The

lesser the time taken the better the points gained by the bot. If nobody finish the run, the farthest one run on tracks with maximum points will win.

Course Specifications

- The line following course shall traverse a white rectangle. The line shall be black, 30 mm wide.
- There shall be a starting area at the beginning of the course and an exit area at the end. The line course starts inside the starting area and ends inside the exit area. The start and end points of the line course shall be clearly marked via a transverse line.
- Sharp angles may occur, but will not be smaller than 90° and the tracks may also be composed of some curves and broken lines, hurdles, obstacle (motile or non-motile both)

GENERAL RULES

- A team can have 2 - 4 members, out of which maximum of 1 can be allowed in the arena.

- The event will be conducted in two level, and top 10 teams in the leader board will be eligible for the final round.
- Once a robot has crossed the starting line it must remain fully autonomous, or it will be disqualified.
- Any robot that loses the line course must reacquire the line at the previous Checkpoint where it was lost, or at any earlier (e.g. already traversed Checkpoint).
- Bot must not lose any parts in the arena or collide with any other bot during the competitions, this will lead to disqualification.
- Any Damage to Arena, other team bot will lead to direct disqualification.

Battery and Power:

The robot can be powered electrically only. The electric voltage between 2 points anywhere in the robot should not be more than 12 V DC at any point of time.

All efforts must be made to protect battery terminals from a direct short and causing a battery fire, failure to do so will cause direct disqualification.