

Line Follower

INTRODUCTION:

Create your bot and let it follow a black line on a white surface. Sounds simple? Then think again, because only the smartest can do the best in the crazy twists and turns of our path. **Finish the line to shine.**

PROBLEM STATEMENT:

Build an autonomous robot capable enough to complete given path with least possible time.

ROBOT SPECIFICATIONS:

1. The maximum dimensions of the robot are 30cm x 30cm x 30cm (l*b*h).
2. Robots should be autonomous.
3. Power supply to the robots should not exceed 12V.
4. Power supply should be ONBOARD.
5. There is no weight limit for robots.
6. Tolerance of 5% on dimensions will be allowed.

QUALIFYING ROUND:

1. A black line of 3 cm width is placed on the white surface. The shape and the junctions of the path will be revealed during the event.
2. The robot will be placed at start point by the event coordinator.
3. **Two** minutes time will be provided for calibration after it is placed at the start point.
4. The time it takes for your robot to complete the given path of a track will be the recorded time.
5. There will be a few checkpoints on the path. If a member wishes, they can start again from recently completed checkpoint with a penalty in case of any malfunction of the robot.
6. There can be any kinds of junction.

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7. Every participant will be asked for the **category (Best time or best path)** of participation before the start of the event. If participating in best path category, the participant will be given 3 attempts to crack the arena in best path.

Note: Arena for the qualifying round and the other rounds will be displayed on the day of the event.

RULES AND REGULATIONS:

1. A team can consist of a maximum of **4 members**.
2. Members of different institutions can form a team and must carry your respective college ID cards.
3. Only **2 members** of a team can stay around the arena.
4. Any kind of damage to the arena will not be entertained, and if done, the robot will be immediately disqualified.
5. No technical assistance will be provided by the coordinators during the time of the event.
6. No practice runs will be provided.
7. Use of an IC engine in any form is not allowed.
8. Human interference (e.g. touching the robot, stepping into the arena) during the game is not allowed.
9. No external power supply will be provided at the time of event.
10. A robot with the base of a toy car and its gearbox as a machine part will be disqualified. Also, LEGO kits are strictly prohibited.
11. Member participated from a team cannot participate in another team for the same event.
12. A robot can participate only once in that particular event.
13. The organizers are not responsible for any kind of damage to your robot.
14. In case of any discrepancies, the decision of the coordinator and the event head shall be final, and no further arguments shall be entertained.
15. The teams should bring their own toolkits.

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CERTIFICATE POLICY:

- 1.A certificate of participation will be awarded to all participating teams except for the disqualified team.
- 2.A certificate of merit would be awarded to the winners, along with prize:
 - ***Prize** for using best/optimal path : **Rs 4000**
 - ***Prize** for least time to complete the path : **Rs 3000**

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