# **Line Follower**

#### **INTRODUCTION:**

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 (1\*b\*h).
- 2. Robots should be autonomous.
- 3. Power supply to the robots should not exceed 12V.
- 4. Power supply should be ON board.
- 5. There is no weight limit for robots.
- 6. Tolerance of 5% on dimensions will be allowed.

#### **QUALIFYING ROUND:**

- 1. A Black tape (3cm width) is placed on the white surface. The shape and the junctions of the path will be revealed during the event
- 2. Standard black tape of 3cm width is used.
- 3. The robot will be placed at start point.
- 4. The time it takes for a Line Follower 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 he can start again from a completed checkpoint with a penalty in case of any malfunction of the robot.
- 6. There will be all kinds of junction.
- 7. There will be two winners one who find the optimized path and another who finishes the path in the shortest time.
- 8. In the case if more then one robot finds the optimized path the robot which completes the optimized path in the least time will be declared as the winner.

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

## **ROBOVANZA**

#### **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 (for controlling and assisting).
- 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.

## **CERTIFICATE POLICY:**

- 1. A certificate of participation will be awarded to all participating teams except for the disqualified team.
- 2. A certificate of appreciation (or excellence) would be awarded to the winners:
  - \*Prize for least time to complete the path.
  - \*Prize for using best/optimal path.

#### For any queries contact:

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