# LINE FOLLOWER

#### **INTRODUCTION:**

The objective of this contest is to complete the maze using an autonomous bot that follows a black line on a white background without losing the line and navigating several turns.

#### **PROBLEM STATEMENT:**

To build an autonomous bot capable of completing the course in the shortest period of time while accurately tracking the course also capable of completing the course in the most optimum path and collecting the most number of checkpoints.

#### **ROBOT SPECIFICATION:**

- The maximum dimensions of the robot are 30cm x 30cm x 30cm (l\*b\*h).
- Robots should be autonomous.
- Power supply of the robots should not exceed 12V.
- Power supply should be ONBOARD.
- Tolerance up to 5% on dimensions will be allowed.

### **QUALIFYING ROUND:**

- HOUATION • A black line of 3cm wide is placed on a white surface. The shape of the path will be revealed at the event.
- The robot will be placed at the start point by the event organiser.
- Two minutes time will be given for calibration after the placement of the bot at the starting point.
- The time taken by the bot to complete the course will be recorded.
- There will be any kind of junctions.
- There are total of 3 categories for the event (**Best Time, Best** Path, Most Checkpoints Collected).

NOTE: Arena will be displayed for qualifying or other rounds on the day of the event.

#### **RULES AND REGULATIONS:**

- The team can consist of not more than 4 members
- Members of different institutions can form a team.
- All the participants must carry their respective college id cards.
- Any kind of damage to the arena will not be entertained and will lead to disqualification.
- No technical assistance will be provided by the organisers during the event.
- No practice runs are allowed.
- Use of IC engines are not allowed.
- NO human interference is allowed during the course.
- A robot with a gearbox or any kind of LEGO kits will be disqualified.
- A robot can participate only once during the event.
- The organizers are not responsible for any kind of damage to the robot.
- In case of any discrepancies the decision of the coordinator or the event head will be final.
- The teams should bring the own toolkits.

## **CERTIFICATE POLICY:**

- The certificate of participation will be awarded to every team except the teams that are disqualified.
- The certificate of merit will be awarded to the winners, along with the prize for the most optimal path, least time taken and most checkpoints collected.

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