

# **HUNT THE LINE**

#### A chase for all!

# INTRODUCTION

In this competition, participants would be competing against each other in an arena that would be having white stripes on a black background. Robots should be designed in such a way that they can take turns whenever there is a curve.

### PRIZE MONEY

1st Prize: Rs. 15000 2nd Prize: Rs. 10000 3rd Prize: Rs. 5000

# PROBLEM STATEMENT ROUND 1

Teams will need to submit a working video of their robot as a Proof of Concept.

- The duration of the video must not be more than 5 minutes.
- The video must be in mp4 format.
- Ensure the proper visibility of the bot in the video.
- The bot shown must be the one that is to be operated over the arena.
- Any sort of malpractice might lead to disqualification.

#### **ROUND 2**

The robot will be required to follow the path in the arena in minimum time. The layout of the arena will be disclosed on the spot.

#### **ROUND 3**

This will be a suprise round for all the finalists and the details will be disclosed on the spot.

## TRACK SPECIFICATION

- The layout of the track will be disclosed on the spot.
- The track will have straight paths and smooth circular turns.
- The lines will be of standard white color with a width of 3 cm (with a dark background).
- The starting point and ending point will not coincide.
- The white strip will be present at the both, the start and the end of the arena.













### **BOT SPECIFICATION**

- The robot must be fully autonomous.
- It should be controlled by a microcontroller using a differential drive.
- At any time of the event, the robot dimensions must not exceed 250x250 mm in length and breadth.
- There isn't any constraint on height and weight.
- The maximum DC voltage between any two points in the circuitry must not exceed 24V.
- No pneumatics and hydraulics are allowed. Mechanisms that can harm other robots are NOT allowed.

# **GENERAL RULES**

- If less than 5 teams register, then only the first prize will be given, and if 5 to 15 teams register, only two prizes will be given. All three prizes will be given only if more than 15 team registers.
- Any damage caused to the arena at any point in time will lead to disqualification /penalty.
- The robot has to travel only to the prescribed arena, and if the bot completely leaves the arena or any intervention has been taken, it will have to start from the previous checkpoint.
- Participants will have 2 minutes to calibrate their sensors before the timer has been start. The run-time will start immediately after the 2 minutes even if participants are calibrating the bot
- Bring your college/student I-Card at the time of the competition.
- If any of the above-mentioned rules, if found violated, teams would not be allowed to participate in the competition.
- Decision Taken by Judges will be final and binding for all.
- Any misbehavior will lead you to disqualification from the competition.

# **TEAM SPECIFICATIONS**

- The team should be of 3-5 members.
- Members of a team may be from the same college/school or different (K12/UG/PG).
- Any number of teams can participate from one college/school.
- Professionals are not allowed. Only students can participate.
- Participants are required to bring their school/college ID cards.
- Once registered, the same team cannot register with another name or for another robot other than the previously registered one.















- Every team must have a unique name that should not be offensive conflicting or inappropriate.
- Organizers must be notified if a team's name has been changed.
- Team Representative: Each team must specify their Team Representative (Leader) at the time of registration on the website. All important communications between the organizer and the registered teams will be done through their Team Representatives. The Team representatives must submit valid contact details (phone no., email id, etc.) at the time of registration.
- If teams don't show up on the allotted slot, they will be disqualified.

# **JUDGING CRITERIA**

- The length and breadth of the bot will be measured before the start of the bot and suitable penalty will be added if it exceeds the given dimensions.
- Points will be distributed in two forms: the points for the time taken to complete the track and the points awarded for clearing the checkpoints.
- If the bot completely goes out of the arena or the participants decide to take an intervention, the bot will start from the previous checkpoint and suitable penalty will be added.
- Teams can only take 3 interventions during the run. After these 3 interventions if the
  bot leaves the arena, the bot will have to forfiet the run and the points evaluated upto
  that time will be considered.
- The points for each checkpoint would be disclosed at the time of event.

### **REGISTRATION DETAILS**

- Fees Rs. 100
- Register at: https://mindbendsvnit.in/









