## **MAZE SOLVER**



Real obstacles don't take you in circles. They can be overcome. Invented ones are like a Maze.

Design a small self-contained autonomous Robot (Micro mouse) to negotiate a Maze in the shortest possible time. The Robot which will start on the START Point and reach the FINISH Point in the shortest time will be nominated as the winner.

## ROBOT SPECIFICATION

- 1) Dimension of the Bot should not exceed 15\*15\*10 Centimeters L\*B\*H respectively.
- 2) The Bot must be autonomous.
- 3) A Micro Mouse shall not leave any part of its body behind while navigating the Maze.
- 4) A Micro Mouse shall not jump over, flyover, climb, scratch, cut, burn, mark, damage, or destroy the Walls of the Maze.
- 5) The Power Source should be less than 12V and 36W (DC Power Supply only). However, a tolerance of 5 % is acceptable.
- 6) Bring own AC to DC Converters or own Batteries of any type (Li-ion, Lead Acid, Gel/Dry Cell, etc).
- 7) Power Supplyof230V, 50Hz AC will be provided.
- 8) Robots must be insulated for hurdles.
- 9) Lego Kits or Readymade Toys are not allowed.

## **ARENA SPECIFICATIONS**

1) The Maze comprises upto14\*14SqF, for a total Maze size of up to 196 SqF (Assume 5-7% Tolerance for Mazes). The outside wall encloses the entire Maze.

- 2) The sides of the Maze Walls are white, the tops of the walls are red, and the floor is black. The maze is made of wood, finished with non gloss paint.
  WARNING: Do not assume the walls are consistently white, or that the tops of the walls are consistently red, or that the floor is consistently black. Fading may occur; Parts from different mazes
  - consistently red, or that the floor is consistently black. Fading may occur; Parts from different mazes may be used. Do not assume the floor provides a given amount of friction. It is simply painted plywood and may be quite slick.
- 3) The Maze floor may be constructed using multiple sheets of plywood. Therefore, there may be a seam between the two sheets on which any low hanging parts of a mouse may snag.
- 4) The start of the Maze is located at one of the four corners. The start square is bounded on three sides by walls.
- 5) The start line is located between the first and second squares. That is, as the mouse exits the corner square, the time starts. The destination goal is the four cells at the center of the maze.
- 6) Small square zones (posts), each1.2cmx1.2cm, at the four corners of each unit square are called lattice points. The maze is so constituted that there is at least one wall at each lattice point.
- 7) Multiple paths to the destination square are allowed and are to be expected. The destination square will be positioned so that a wall hugging mouse will NOT be able to find it.
- 8) Small changes will be made in final Arena.

## PRIZE MONEY

First Prize	₹ 10,000/-
Second Prize	₹ 5,0000/-

### **CONDITION**

- 1) Prize Money is subjected to Total Number of Entries in the Event.
- 2) If 20+ Teams participate then Second Prize will be given.
- 3) If there are less than 15+ Teams then only First Prize will be rewarded.

## **RE-REGISTRATION FEES**

Entry Fees	300INRforperRobot
Combo Offer	700INRforperRobot
(Maze Solver and Line Follower or Robo Race)	(If Team register their Bot in both Events)
Re-Registration Fees	150INRperRobotRe-Registered
(Only for Maze Solver)	

#### SCHEDULED TIME & DATE

Date	Time
29-02-2024	2:00 p.m. to 4:00 p.m.
01-03-2024	2:00 p.m. to 4:00 p.m.

## **GUIDELINES**

- 1) Teams must prior register their Robots for participating in the Line Follower Event.
- 2) The Robot should follow the Robot Specifications provided. Any deviation from the mentioned specifications will lead to disqualification.
- 3) Changing of Robots will be strictly prohibited and if found to do, so leads disqualification.
- 4) The Robot should not damage the Arena.
- 5) No test practice will be allowed on the Arena.
- 6) Each team will be given a times lot. Delays are strictly not allowed.
- 7) The Event consists of two rounds: -Elimination Round and the Final Round.

  The Teams qualifying Elimination Round will be allowed to participate in the next round.
- 8) If in case, a situation of technical problem related to Robot occurs, then the Team can take a Technical Break of 1 Minute. It can be availed once per round.
- 9) During the Technical Break, participant will repair Robot without any outside help.
- 10) The Registration Fee is non-refundable.
- 11) Minimum 10entries are must otherwise Event will be cancelled and Registration Fees will be refunded or you can adjust it in other Events.
- 12) Re-registration is only allowed in Elimination Round.
- 13) Re-registration should be done within 45 Minutes of Time Period of getting disqualified.
- 14) Each and every Member of the Team must contain the Identity Card of his/her respected Institute.
- 15) Unethical behavior could lead to disqualification.
- 16) In case of any dispute, the decision of Judge, Faculty Coordinator sand Organizers will be final.

# **CONTACT US:**

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