Rules & Regulations

DEPARTMENT: ROBOTICS

NAME OF EVENT: PATHFINDER

NO. OF MAX. PARTICIPANTS: 100

EVENT DESCRIPTION:

- Pathfinder is a fully autonomous event. For this event, participants are required to build robots which can sense the obstacles in the path and can navigate throughout the course. Two teams will compete simultaneously in this event in a 1v1 format. The objective of the teams will be to find the way out of the course filled with obstacles in the least time possible.

TEAM AND ROBOT SPECIFICATION:

- Number of members per team: 2-4
- Robots must be fully autonomous
- The maximum dimensions of the robots are 30x30x20 cm (LBH).
- Robots can be of any drive (Wheel, Legs, Belt, etc.).
- Battery voltages for the pathfinder robots should not exceed 12 Volts.
  The permissible weight of the robot is up to 5 Kg. (Including battery).
- No mechanical mechanism attached (Cutter, Hammer, Roller etc) and no other accessories which may damage the obstacles or the track

REQUIREMENTS:

- Participants must bring their own supplies.
- No battery chargers or tools will be given on the event grounds. So, if they are needed the participants must bring their own.
- AC charging ports will be given on the day of event to charge batteries and use tools

GENERAL RULES:

- Robots must be autonomous.
- Robots can use sensors (Ultrasonic, LIDAR etc.).
- No hand touches are allowed during the game, once the game begins.
- Hitting the obstacle or walls of the track directly or indirectly will result in a time penalty*.
- The team which clears the most number of checkpoints will be qualified for the next round and another team will be eliminated.
- If the robot remains idle for more than 30 secs in between the game will be considered eliminated.

LEVEL DESCRIPTION:

- **Round 1: (Day 1, 2 Hours, 120 Participants)**
  Group based event with top Teams in each group moving onto round two

- **Round 2: (Day 1, 1.5 Hours, 60 Participants)**
  Top teams from previous rounds will go face to face with each other at the same time. The team which clears the most checkpoints in least amount of time will move onto the next round.

- **Round 3: (Day 2, 3 Hours, 20 Participants)**
  Here the teams from the previous round which remained will go against each other for the final time to decide the winner of the event.

(Event Details may change on the day of the event on the basis of entrants)

JUDGING CRITERIA:

- Teams will be judged on the number of checkpoints completed in the given time limit.
- In case two or more teams complete the same number of checkpoints the teams to complete more checkpoints in least amount of time will be considered the winner.
- Penalty will be awarded if the robot hits an obstacle

JUDGES:

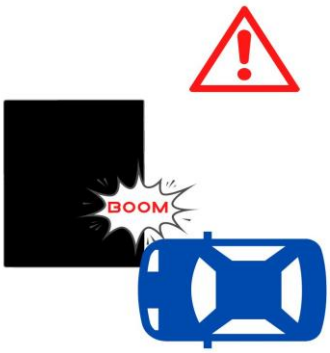
1. Asst. Prof. Dixit Patel (Institute Faculty)

EVENT COORDINATORS:

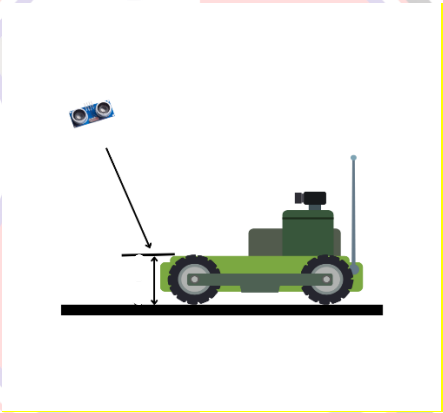
You can contact the following coordinators if you have any query regarding the event.

Sr. No	Name	Faculty/ Student	Contact No	Email ID.
1	Siddhantsinh Raj	Student	8866669100	Siddhantsinhraj2706@gmail.com
2	Yaksh Patel	Student	9327988170	Yakshpatel0209@gmail.com

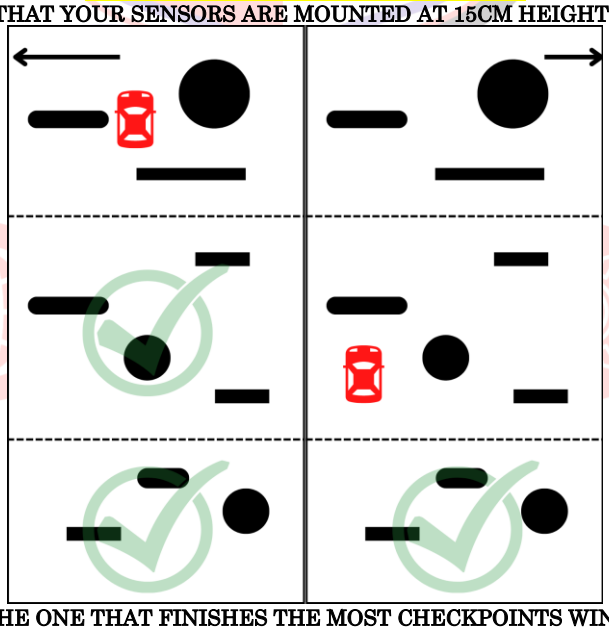
EVENT ILLUSTRATIONS:



PENALTY WILL BE AWARDED FOR HITTING THE OBSTACLES



IT IS RECOMMENDED THAT YOUR SENSORS ARE MOUNTED AT 15CM HEIGHT FOR BEST DETECTION



THE ONE THAT FINISHES THE MOST CHECKPOINTS WINS