

## TRACK-O-BOT

### General Rules

- Round 1 track will be made public two days before the event.
- Round 2 track will be made public only after the successful completion of round 1 and publication of 2nd round qualifiers.
- No two teams should participate with the same robot.
- Computers, programmers and software need to be arranged by the team themselves. We will provide two/three pin sockets with proper ground connection.
- The competition is only for autonomous robots, no manual robots will be entertained.
- The robots should be able to process data on-board. No remotely kept computer should control the robots.
- The robots have to be designed by the team itself.
- Usage of commercially available modules such as sensors, development boards, etc. are allowed; but it is forbidden to use complete robotic-system which is sold readymade for the purpose of this competitions such as Lego kits.

### Final Point Calculation

- Time taken to complete track will be only awarded to participants who complete the track. Those who fail to complete the entire track or quit mid-way will not be awarded any points and loses their chance to go to next levels.
- Time taken to complete track= T  
Equivalent point=  $T \times 10$
- Point scored after crossing the section= P
- Final Score=  $P - (T \times 10)$
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### Robot Specification

- The robot should fit in a box of dimension 30cm x 30cm
- No limitations on height.
- The maximum weight should not be more than 3 kg.
- The robot can be powered electrically only (internal or external).
- The electric voltage between 2 points should not be more than 20V DC at any point of time in the run.



## Arena Specification

- Track will have multiple sections.
- There will be a checkpoint after each section.
- A bot needs to cross the section and reach the checkpoint to complete the section.
- A checkpoint cross by the bot should be denoted by a buzzer or blinking of led by the bot itself on reaching the checkpoint.
- Teams will be awarded 30 points for each section. ( $30 \times 3 = 90$ )
- 10 points will be awarded for start and stop. [ $5 + 5 = 10$ ]
- Total of 100 points to be obtained in 1st round.

