

# NIRMAN

THE FOURTH EDITION

ROBO RACE

# RULEBOOK

**Silicon Innovation Promotion Cell (SIPC)**  
**Silicon University, Bhubaneswar, Odisha, 751024**

# EVENT DESCRIPTION

**No of Members in a Team: 3-5**

## **Event Description:**

**Robo Race** is a Racing event, using Manual Robotics. Teams compete with each other by making a racing bot either wired or wireless within the specified dimensions that can be operated manually and can travel through all terms of the track. It should be able to withstand any obstacle-big or small in the least of time, including hurdles, checkpoints and tasks within the track. Obstacles for the competition will include Switch Bridge, speed breakers, marble pit, slippery path, rotating disc, curve ramp down etc. The bot that will complete the specified task in least time will be the winner.





# ROBOT SPECIFICATIONS

- 1) The maximum dimension of the robot can be 30 cm x 30cm x15 cm (1 x b x h).
- 2) The robot may be wired or wireless.
- 3) The length of the wire (for wired bots) should be long enough to cover the whole track and wire should remain slack during the complete run.
- 4) Madmum weight must not exceed 2.5 kg.
- 5) The participants will be provided with 220 Volts, 50Hz standard AC supply. Participants will have to themselves arrange for adaptor or batteries.
- 6) The electric voltage anywhere in the machine should not be more then 12V DC at any point of time.
- 7) The machine must not be made from Lego parts, or any ready-made kit, If we find such a machine it will be disqualified.

# GENERAL RULES

- 1) This is racing event so fastest and most balanced robot will win.
- 2) Robot should be as per the given specifications.
- 3) Each team can have maximum five members. Students from different Institutes can form a team.
- 4) Each member of the team must contain the identity card of his/her respected institute.
- 5) The robot should not damage the arena.
- 6) Wires should remain slack during the course of the run. Pulling the wire to aid the robot in traversing may lead to disqualification.
- 7) If any of the robots starts off before start up call, the counter would be restarted and the machines will get a second chance. If repeated again then team will be disqualified.
- 8) Your robot must be ready when call is made for your team.
- 9) Team members will be allowed only three times to touch or reset their robots position during the run. However, this will lead to a time penalty and timer will not stop during this course of action.
- 10) The robot will be judged on basis of (in priority):-
  - a. Time to complete the track.
  - b. Number of checkpoints cleared
- 11) No test practice will be allowed on the arena.
- 12) The robot must not leave behind any of its parts during the run; else it will result in disqualification.
- 13) Unethical behavior could lead to disqualification. Co-ordination committee has all the rights to take final decisions for any matter during the event.
- 14) Judge's decision will be considered final.
- 15) Certificates of Participation will be given to all the teams that will participate in the event, but not to the teams which get disqualified due to disobeying any of the competition rules.

**Co-ordination committee reserves the right to add or update any rule.**

# PRIZES

**1ST** RS 8,000

- Nirman Merchandise & Goodies
- Goodies from our sponsors

**2ND** RS 6,000

- Nirman Merchandise & Goodies
- Goodies from our sponsors

**3RD** RS 4,000

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- Goodies from our sponsors

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