

## **PRAYAS-2025 – Roborace Competition plan (tentative)**

**Date:** 21st March 2025

**Venue:** Main Building ( Ground )

**Eligibility:** Diploma & Engineering Students ( All Branches )

**Entry Fee:** ₹200 per team (Max 2 members)

**Prizes:** Winner & Runner-up (Cash Prize, Trophy, and Certificate)

Certificate of Participation for all teams

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### **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 two members. Students from different institutes can form a team.
4. Each member of the team must contain the identity card of his/her respective institute.
5. The robot should not damage the arena.
6. No test practice will be allowed on the arena.
7. The robot must not leave behind any of its parts during the run; else it will result in disqualification
8. Unethical behavior could lead to disqualification. Faculty co-ordinators have all the rights to take final decision for any matter during the event.
9. Judge's decision will be considered final.
10. 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..

### **Robot Specification**

1. The maximum dimension of the robot can be 25 cm x 20cm x15 cm (l 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. Maximum weight must not exceed 3 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 machine must not be made from Lego parts, or any ready-made kit, if we find such machine it will be disqualified.
7. Motor should not be greater than 300rpm.

**BATTERIES & POWER:**

1. The machine must be powered electrically only. Use of IC engine is not allowed.
2. Batteries must be sealed, immobilized electrolyte type (gel cell, lithium, NiCad, or dry cells).
3. The electric voltage anywhere in the machine should not be more than 12V DC at any point of time.

**Judging Criteria:**

- i) Time lap
- ii) Number of check points cleared.
- iii) Number of skips taken.
- iv) Number of hand touches.

**TRACK SPECIFICATION:**

- 1) The track surface and course line may have unevenness.
- 2) There will be certain obstacles in the race track which will try to slow down the Robo.
- 3) Arena will consist of Switch Bridge, speed breakers, marble pit, slippery path, curve ramp down, etc.

**GAME RULE:**

- 1) The competition is based on time trail system. There will a qualifying round for each team.
- 2) The top team from qualifying round makes it to the final round on basis of time trials.
- 3) Wires should remain slack during the course of the run. Pulling the wire to aid the robot in traversing may lead to disqualification.
- 4) 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.
- 5) Your robot must be ready when call is made for your team.
- 6) 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.
- 7) The robot will be judged on basis of (in priority):
  - a) Time to complete the track.
  - b) Number of checkpoints cleared.
- 8) Machine must not contain any readymade kits, pneumatic & hydraulic systems or IC engines.
- 9) Decision about your robot will be taken by the organizers.
- 10) No team will get a second chance after completing the track with poor score.

