



“Techno-Social Excellence”
Marathwada Mitra Mandal's
INSTITUTE OF TECHNOLOGY (MMIT)
Lohegaon, Pune-411047

TECHNO-SCI 2K25

Rules for ROBO RACE/WAR

Robot Specifications

1. Manually controlled WIRELESS robot is compulsory.
2. Dimensions of the robot should not exceed $(30 \times 30 \times 30) \text{ cm}^3$ and should not be less than $(20 \times 20 \times 20) \text{ cm}^3$.
3. There are no material restrictions, but any kind of magnetic field generation will lead to disqualification.
4. Maximum the power supply must be up to 12 Volt. Do not carry external power supply.
5. Use of IC ENGINES or DC STEPPER MOTOR or COMPRESSOR is not allowed.
6. The weight of the robot should not exceed 2 kg, excluding remote's weight.
7. The robot should not use any sucking or sticking device on the base.
8. The robot should not have zero ground clearance i.e. no part of the robot except the wheels should be touching the ground.
9. If the source of energy is on the robot then it will be included in total weight.
10. No responsibility for the damage to the robot will be taken by the organizers.
11. Robot must be self-designed, readymade robot is not allowed.

Round 1

1. This round will be an elimination round.
2. Robots have to cover the given track in minimum possible time.
3. Half of the teams will be selected for Round 2, based on their performance and robot specifications.

Round 2

1. Arena for this round (2) is different from Round 1.
2. Winner of the Event will be decided after Round 2 as per the rule finalised by the judges panel.

Rules:

- 1) The robot will be started from the START position.
- 2) The robot, if required hand touch, will be placed on the previous checkpoint.
- 3) Maximum 3 hand touch will be allowed.
- 4) For each hand touch a penalty of 1 min will be given.
- 5) Total 2 skips are allowed in the whole track. Skips will add extra time in total time.
- 6) Voltage used should not be more than 12 volts.
- 7) During a level, teams are not allowed to change their robot.

Judging Criteria:

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



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$$\text{Points} = (T_{\text{threshold}} - T_{\text{taken}}) * 10 - [h * 100 + n * 120]$$

Where,

$T_{\text{threshold}}$ is a constant and will be set and revealed on the day of the event.

T_{taken} is the time taken by the robot on the track after start.

h is the number of hand touches during the race.

n is the number of skips taken.

Note

- 1) The judge’s decision will be final and binding to all.
- 2) There may be changes in the rules, rounds or track, if any will be notified.

Team Specifications:

- 1) Maximum 4 & Minimum 2 participants are allowed per team.
- 2) Only the team members can control the robot.

Registration Fees: - Rs.50 /- per team member.



Top View of track



Side View of track

SAMPLE TRACK FOR COMPETETION

Contact Details:

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