FULL THROTTLE

Robotica' 25

RULE BOOK

1. GAME AND RULES:

Starting with designing and building a bot that moves through the curves of the track might be easy, but making it run on terrains, hurdles, and being an early bird is a tough task. So are you up for the challenge?

1.1. PROBLEM STATEMENT

Design a manually controlled bot to crack the arena in the least amount of time, avoiding penalties. The arena consists of hurdles that downturn the robot's speed.

2. GAME FIELD AND OBJECTS:

2.1. ARENA

2.1.1. The arena is placed on the ground, there may be obstacles at certain points in the racecourse.

2.1.2. Minimum track width of the arena is 450mm.

2.2. CHECKPOINTS

2.2.1. There are 3 checkpoints in the arena.

2.2.2. At any stage of the arena, if the bot is stuck then it will be repositioned at the most recently traversed checkpoint.

2.2.3. Checkpoints are indicated by flags in the arena.

3. TEAMS:

3.1. Team size - (2-4).

3.2. Only 2 members of a team are allowed to stay around the arena (one for controlling and one for assisting) and a team is allowed to play with one robot only.

3.3. Members of different institutions can form a team.

4. ROBOTS:

4.1. ROBOT SPECIFICATIONS

4.1.1. Robots can be wired or wireless; if wired, the cable length must be a minimum of 3 meters.

4.1.2. If batteries are on the robot, then they will be considered for weight.

4.1.3. If batteries are not on the robot, then they will not be considered for weight.

4.1.4. A robot is allowed to participate only once in the event. The robot can participate once again with the same team if it satisfies the following conditions:

- The team has to register once again with a modified old robot/new robot before registrations close and a maximum of 3 registrations will be accepted.
- Wheels or motors or chassis materials should be changed to consider an old robot as a new one.

4.1.5. Robots should not damage any part of the arena. If the robot damages any part of the arena, it will be disqualified.

4.1.6. The robot should not expand or compress during the run. A technical timeout can be taken in case of any part detachment of the robot.

4.1.7. Use of IC engines is not allowed.

4.1.8. Lego kits are not allowed.

4.2. ROBOT DIMENSIONS

Dimensions of the robot should not exceed 30cm x 30cm x 25cm (l*b*h). (Tolerance of 5% is allowed in this regard).

4.3. POWER SUPPLY FOR ROBOTS

4.3.1. The potential difference between any two points should not exceed a limit of 12V and the robot should be powered only using batteries.(A tolerance of 5% is allowed).

4.3.2. If the robot suddenly stops in the arena due to any technical problem, you will be allowed to take a technical timeout. After taking one technical timeout, the timer will not be stopped if the robot suddenly stops in the arena.

4.3.3. The power supply may be ON or OFF the board (i.e., one of the team members can hold the power supply).

4.3.4. Changing the battery or battery polarity is not allowed during the race.

4.3.5. No external power supply will be provided at the time of the event.

4.4. WEIGHT

The maximum weight of the robot should not exceed 4 kgs.

5. SAFETY

5.1. All the required accessories should be brought by the participants.

5.2. Organizers are not responsible for any damage to the robot.

5.3. Technical assistance will not be provided by coordinators or technical team.

6. THE COMPETITION AND MATCHES

Two rounds: I. Qualifying Round, II. Final Round.

7. COMPETITION RULES

7.1. Technical timeouts: 1 minute allowed per team.
7.2. Scoring & Penalties: Based on time and violations.
7.3. Basic Rules: Human interference only during skip,
timeout, checkpoints.

8. DISQUALIFICATION

Violation of rules, damaging arena, misbehavior, toy car base, Lego kits, exceeding time limit (12 mins), or using checkpoints more than 3 times leads to disqualification.

9. COMPETITORS AND BEHAVIORAL RULES

All participants get Certificate of **Participation**.
Winners & runners get Certificate of Merit.
Must bring **College ID** & Event ID.
Misbehavior not tolerated.
Decision of event coordinators is final.
Coordinator/Head contacts:
N Adarsh Ram   9063950139
Kongari uday krishna   9182305852