THE ROBOTICS CLUB
Integrating Knowledge...

GATI

Sreenidhi's Annual Technical Fest

ROBOVEDA'25

EXPLORE THE UNWRITTEN LORE...

RULE BOOK

GATI

1. GAME AND RULES:

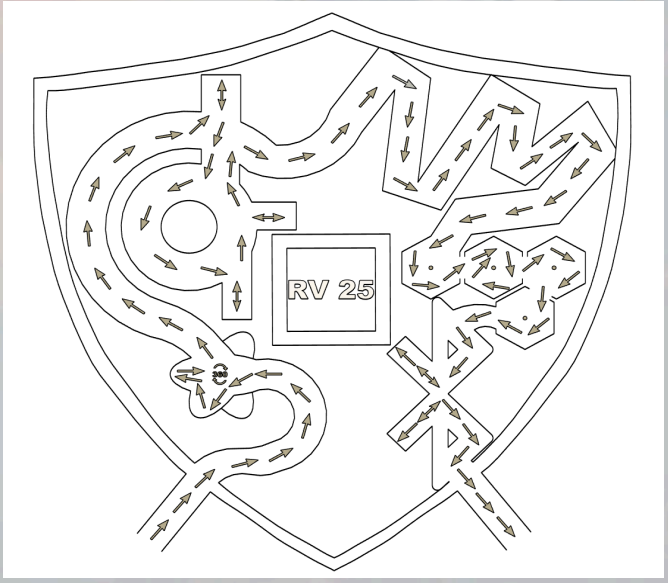
1.1. PROBLEM STATEMENT

1.1.1. Design a wired or wireless robot with the specified dimensions that can travel through all turns of the track. The robot that cracks the arena in the least amount of time is the winner.

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 race course.
2.1.2. Minimum track width of the arena is 30cm.
Note: The design is not drawn to scale. The orthographic view of the arena is shown below.



3. TEAMS:

3.1. There is no team limit.
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.
3.4. Students who are pursuing any course upto post graduation can participate.

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. Participants are allowed to participate only once in that particular event. 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.
4.1.9. No extensions for wheels (not even grippers) are allowed. Any external Attachments or extended rims that modify the wheel radius or footprint are strictly prohibited.
4.1.10. No autos or two-wheelers are allowed.Robots must use at least four wheels and follow differential or other stable configurations.

4.2. ROBOT DIMENSIONS

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

4.2.2. Minimum track width of the robot (wheel to wheel) should be 25cm x 25cm.
4.2.3. No tolerance is allowed for the minimum wheel-to-wheel (track width) length. Robots below 25 cm minimum track width will be disqualified during inspection.

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 due to any technical problem.
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

4.4.1. The maximum weight of the robot should not exceed 5kgs.

5. SAFETY :

5.1. All the required accessories should be brought by the participants.
5.2. Team Roboveda is not responsible for any damage to the robot.
5.3. Technical assistance will not be provided by coordinators or technical deputies.

6. THE COMPETITION AND MATCHES: There are two rounds

I. Qualifying Round
II. Final Round

6.1. QUALIFYING ROUND

6.1.1. During the qualifying round, one team will be allowed to participate at a time.

6.1.2. The whole arena run should be completed within time as mentioned on the day of the event to qualify for the final round.
6.1.3. The winner of the round is judged by a circuit race of 1 lap.
6.1.4. If the robot touches any barricade once, a penalty (in seconds) will be levied, the specifications of which will be mentioned on the day of the event.
6.1.5. The total time taken by the participants to reach the finish line with penalties will be counted.
6.1.6. Arena will be explained to the participant before the race commences.
6.1.7. The width of the track will be in accordance with the robot specifications for the qualifying round. It may change in further rounds.

6.2. FINAL ROUND

6.2.1. The top 12 teams that cracked the qualifying round in less than the total time (with penalties) will be allowed for the final round.
6.2.2. Only one team is allowed to participate at a time.
6.2.3. The winner is judged by a circuit race of 1 lap.
6.2.4. If the robot touches the barricade once, a penalty (in seconds) will be given, the specifications of which will be mentioned on the day of the event.
6.2.5. Total time taken by participants to reach the finish line with penalties will be counted.
6.2.6. The team which cracks the arena in the least amount of time (with penalties) will be pronounced as the winner of the final round.
6.2.7. The robot participating in the final round should be the same one that participated in the qualifying round. Modifications will be allowed for the robot (only if previously used parts are damaged) in between the rounds only if the following conditions are satisfied :

- The participant must show both the damaged part of the robot (wheels, chassis, motors) and the replaced part of the robot (wheels, chassis, motors) on the day of the final round.
- Heads or coordinators of the event will allow the modified robot only if the damaged part and replacement part are the same/similar.

6.2.8. Dimensions and voltage checking for the second round will be conducted outside the arena room. Teams must complete inspection before entering to ensure quick event flow and safety.

7. COMPETITION RULES:

7.1. TECHNICAL TIMEOUTS

7.1.1. 2 technical timeouts of each 30 seconds can be taken by a team.
7.1.2. After the finishing of technical timeouts, the timer will start again and will not be stopped under any circumstances.
7.1.3. No technical assistance will be provided by the event coordinators or heads during the event.
7.1.4. During technical timeouts, teams are only allowed to check connections or wiring issues.Changing components such as wheels, motors, or batteries is strictly not allowed.

7.2. SCORING & PENALTIES

7.2.1. The robots that have cracked round-1 in the least amount of time in the qualifying round will be considered, and those teams will be allowed to participate in the final round.
7.2.2. If the robot touches any barricade once, a penalty (in seconds) will be given, the specifications of which will be mentioned on the day of the event.
7.2.3. The time taken by the robot to complete the race track, along with the penalties, is the total time taken.
7.2.4. Scoring schema (including penalties) will be disclosed on event day by heads and coordinators.
7.2.5. Only the results of the winner and runner-up will be officially announced. Timing or penalty details of other participants will not be disclosed.

7.3. BASIC RULES

7.3.1. Participants using flight controllers, RC controllers, or wireless controllers with ESCs should move the bot forward only with full throttle; for slight movements or turns, avoid any intermediate joystick positions and use a 'thumping' motion — a quick, full push to the limit, then immediately returning to the center.

8. DISQUALIFICATION:

8.1. If a participant does not comply with the rules of the event, the robot will be disqualified from the event.
8.2. Robots should not damage any part of the arena. If the robot damages any part of the arena, it will be disqualified.
8.3. Misbehavior of any kind will not be tolerated and the team will be subjected to disqualification from Roboveda.
8.4. If human intervention by a participant happens more than 2 times (during technical timeout it is not considered), the robot will be disqualified.

9. COMPETITORS AND BEHAVIORAL RULES:

9.1. All participants will be given a Certificate of Participation.
9.2. Winners and runners will be given a Certificate of Merit.
9.3. All participants must bring both a college ID card and an event ID card.
9.4. Participants are allowed to participate once again if they satisfy rule 4.1.4 .
9.5. Participants are not allowed to use their own Stop watches.
9.6. Team Roboveda is not responsible for any kind of damage to your robot.
9.7. We request the participants not to assume anything that is not mentioned in the document without contacting the Coordinators or Technical Team.
9.8. It's our sincere request to all the participants to go through this rule book thoroughly and not a single point mentioned in the rule book will be compromised under any circumstances. We also request you have a copy of this rule book handy during the event.
9.9. In case of any discrepancies, the decision of co-ordinators and heads shall be final and no further argument will be entertained.
9.10. Make sure you visit our official website on a daily basis so that you will get to know if there are any changes made in the event.
9.11. Any kind of misbehavior will not be tolerated and will lead to disqualification of the team.
9.12. If you choose our hospitality, the payment must be made on the day you check-in.
9.13. In unforeseen circumstances, Team Roboveda abides by the decision of the Institution regarding the conductance of the event. Only registered participants will be informed about the change in event dates or cancellations. In that case, the registration fee will be refunded.

EVENT COORDINATORS:

ASHISH: +91 9014141038
VENKATA PRASAD: +91 9182832668

EVENT HEADS:

M. SAI VARUN: +91 9110347871
P. BHAGYASREE: +91 6309247780