



THE ROBOTICS CLUB
Integrating Knowledge...



R U L E B O O K

GOALAA



SREENIDHI'S ANNUAL TECHNICAL FEST

ROBOVEDA'25

EXPLORE THE UNWRITTEN LORE...

GOALAA

1. GAME AND RULES:

1.1. PROBLEM STATEMENT

1.1.1. Design a manually controlled robot capable of playing soccer, to hit the ball as a striker and also to act as a Goal-keeper to stop an opponent's bot from goal posting.

2. GAME FIELD AND OBJECTS:

2.1. ARENA

2.1.1. The arena dimensions of the field are 4m x 2.5m with a centre circle diameter of 50cm and the goal post half circle radius is 75cm.



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).
- 3.3. Members of different institutions can form a team.
- 3.4. A team is allowed to play with only one robot in Round 1.
- 3.5. Students who are pursuing any course up to post graduation can participate.

4. ROBOT:

4.1. ROBOT SPECIFICATIONS

- 4.1.1. Robots can be wired or wireless.
- 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. Ground clearance of the robot should be maintained, and the robot ramp should not touch the ground.
- 4.1.6. Any type of structure that holds the ball is not allowed.
- 4.1.7. Use of IC engines is not allowed.
- 4.1.8. Lego kits are not allowed.

4.2. ROBOT DIMENSIONS

- 4.2.1. Dimensions of the robot should not exceed by **30cm x 30cm x 30cm**(l*b*h).
- 4.2.2. Tolerance of 5% on dimensions will be allowed.



4.3. POWER SUPPLY FOR ROBOTS

4.3.1. Maximum voltage in the circuit should not exceed 12V DC at any time.

4.3.2. Tolerance of 5% on power supply will be allowed.

4.4. WEIGHT

4.4.1. Weight of a robot should not exceed 5kg.

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 team.

6. THE COMPETITIONS AND MATCHES: There are two rounds.

I. Qualifying Round

II. Final Round

NOTE: Round 01 and Round 02 will be considered under the Qualifying Round.

6.1. ROUND 01

ROUND 01 – INDIVIDUAL ROUND

6.1.1. The time limit for this round is 120 seconds per match.

6.1.2. Only one robot is allowed to be used in this round.

6.1.3. Choosing the robot for this round is up to the participants.

6.1.4. Color balls of the same size will be placed randomly in the arena.

6.1.5. The robot should be able to move throughout the full arena.

The ball will be placed at any random position, and the robot must move from that point and score a goal in the opposite goal post.

6.1.6. For the first 75 seconds, five color balls will be placed one after another in the arena.

The robot must goal each color ball into the opposite goal post.



6.1.7. After 75 seconds, the placement of color balls will stop.

During the next 45 seconds, three golf balls will be placed one after another in random positions.

The robot must goal these golf balls into the opposite goal post as well.

6.1.8. Each color ball carries 5 points, and each golf ball carries 10 points.

NOTE: Participants for Round 2 will be selected based on the total points scored and the time taken to goal all the balls within the 120-second limit.

In case two or more participants score the same number of points, their completion time will be considered.

If the time is also identical, the match will proceed to a tie-breaker round.

6.1.9. The tie-breaker scheme will be disclosed on the event day by the event heads and coordinators.

6.2. ROUND 02

6.2.1. In this Round, opponents will be selected based on a lucky draw.

6.2.2. Each team should bring two robots; one plays the role of goal-keeper and another as a striker. (2 Vs 2).

6.2.3. Robots will be placed in the required position by the coordinators.

6.2.4. The robots have to score the goal in the opposite as it is done in Soccer.

6.2.5. Rules and time limit for Round 2 will be decided on the day of the event.

6.2.6. The penalty will be announced on the day of the event.

6.2.7. The robot participating in round 2 and the final round should be the same one that participated in round 1. 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.

NOTE: Arena for the event will be displayed on the day of the event. Those who qualify for the first two rounds will be in the finals. The final match arena and rules will be revealed during the day of the final event.



6.3. FINAL ROUND

6.3.1. Will be disclosed on event day by heads and co-ordinators.

6.3.2. Participants who have qualified for the final round must bring the same 2 robots which participated in Round 2.

6.3.3. The robots participating in the final round should be the same one that participated in the qualifying rounds (Round 2). Modifications will be allowed for the bot 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.

7. COMPETITION RULES:

7.1. TECHNICAL TIMEOUTS

7.1.1. If a technical glitch occurs, servicing time of 2 minutes will be given to each team.

7.1.2. After the finishing of technical timeout, the timer will start again and will not be stopped under any circumstances.

7.2. GAMEPLAY RULES

7.2.1. The goalkeeper should be within the area of their respective teams.

7.2.2. Robots must be constructed in a way that they do not enter the goalpost.

7.2.3. This rule applies to all robots on the field.

7.2.4. Any robot that moves into the goal post 3 times during a period of 20 seconds is deemed to be Foul.

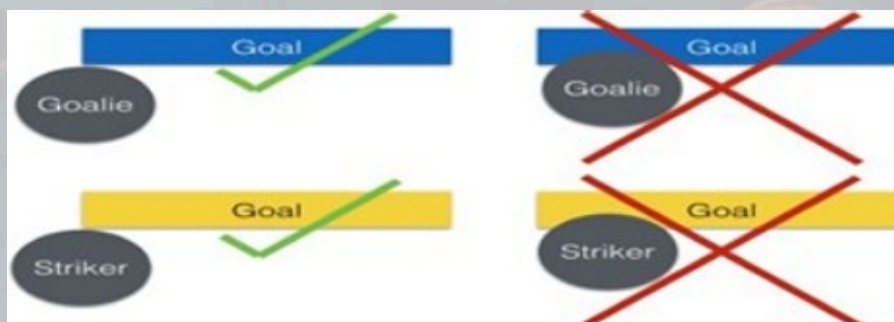
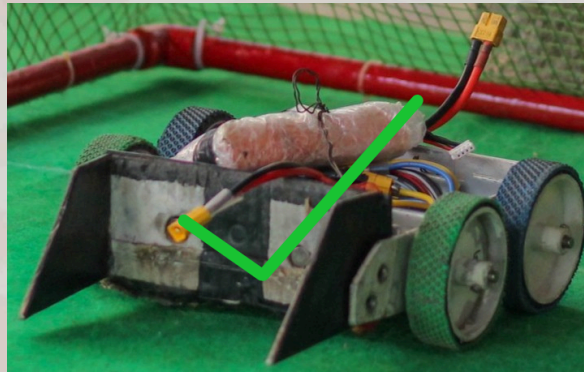


Figure: Acceptable and unacceptable position of Goalie and Striker

- 7.2.5. Robots cannot enter the goal post, in-case a penalty will be charged.
- 7.2.6. Teams are not permitted to change the parts of their robots during a run or between rounds.
- 7.2.7. The Robots of a team will be checked before the start of Round 1.
- 7.2.8. If a ball goes out of the arena, the game will be resumed after placing the ball in the center.
- 7.2.9. If the bot flips accidentally, the head or coordinator can upright it in the same position, and the timer will be paused.
- 7.2.10. In case of any discrepancies, the decision of the coordinator and the event head shall be the final, and no further arguments shall be entertained.



Allowed



Not allowed

7.3. SCORING AND PENALTIES

7.3.1. Scoring schema(including penalties) will be disclosed on event day by heads and co-ordinators.

8. DISQUALIFICATION:

- 8.1. Capturing the ball by any means may lead to disqualification.
- 8.2. The ball should be in a moving position and cannot be locked by the robot.
- 8.3. Any kind of damage to the arena will not be entertained, and if done, the robots will be immediately disqualified.
- 8.4. Lending or making the robot and participating in the same event with a different team will not be entertained.
- 8.5. Human interference (e.g., touching the robot, or stepping into the arena) during the game will not be allowed.
- 8.6. If a participant does not comply with the rules of the event, the robot will be disqualified from the event.
- 8.7. Any modifications made to them after invigilation will lead to disqualification.

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 their respective ID cards.
- 9.4. Participants are allowed to participate once again if they satisfy rule 4.1.4.
- 9.5. Robots are allowed to participate only once in that particular event.
- 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.
- 9.9. We also request you have a copy of this rule book handy during the event.
- 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.

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