ROBO SOCCER

INTRODUCTION

Soccer is undoubtedly a challenging and fun loving game. But isn't it more interesting when robots play soccer? To experience fun in Robotics field, we present you a platform wherein you exhibit a robot, capable enough to surpass all the difficulties in order to celebrate victory. Ultimately, success lies in the hands of the deserving. Showcase your skills to merge the realms of robotics and humans in the game of football.

PROBLEM STATEMENT

Build a soccer playing robot skilled enough to overcome obstacles placed around the ball and make a goal with least possible time. The robot's ball handling skills in addition to the controller's skill and precision will be tested. Each round will have a different judging criteria (overall points, number of goals scored, and time taken).

ROBOT SPECIFICATIONS

1. The maximum dimensions of the robot is 30cm x 30cm x 30cm (l*b*h).
2. Robots can be wired, wireless, or autonomous.
3. Power supply to the robots should not exceed 12V.
4. Power supply can be ON/OFF board.
5. There is no weight limit for robots.
6. Tolerance of 5% on dimensions and power supply will be allowed.

QUALIFYING ROUND

1. Balls are placed at different locations on the arena surrounded with different obstacles. The shapes of obstacles will be revealed during the event.
2. Standard table tennis balls are used.
3. The robot will be placed at start point.
4. There will be two courts and each court has some balls. (The number of balls in each court might vary)
5. The robot has to goal the balls in the opposite goal post (the balls on the left half of the court should be goaled in the right post and vice versa).
6. Time limit for the game play will be decided on the day of the event.
7. If the robot touches the obstacles, the team will be penalized accordingly. The penalty will be announced on the day of the event.
8. If the robot has capability to kick balls to the goal post from a distance, it will be beneficial to fetch more points.

Note: Arena for the qualifying round and the other rounds will be displayed on the day of the event.

RULES AND REGULATIONS

1. A team can consist of a maximum of 4 members.
2. Members of different institutions can form a team and must carry your respective college ID cards.
3. Only 2 members of a team are allowed to stay around the arena (for controlling and assisting).
4. Only Undergraduates are allowed to participate in the event.
5. Any kind of damage to the arena will not be entertained, and if done, the robot will be immediately disqualified.
6. Collision of the robots during the game will not be entertained.

7. No technical assistance will be provided by the coordinators during the time of the event.
8. No practice runs will be provided.
9. Use of an IC engine in any form is not allowed.
10. Human interference (e.g. touching the robot, stepping into the arena) during the game is not allowed.
11. No external power supply will be provided at the time of event.
12. A robot with the base of a toy car and its gearbox as a machine part will be disqualified. Also, LEGO kits are strictly prohibited.
13. Participants with wired robots are strictly advised to get wires of length 3m or more. The wires should be given slack throughout the gameplay.
14. Member participated from a team cannot participate in another team for the same event.
15. A robot is allowed to participate only once in that particular event.
16. The organizers are not responsible for any kind of damage to your robot.
17. In case of any discrepancies, the decision of the coordinator and the event head shall be final and no further arguments shall be entertained.

CERTIFICATE POLICY

1. A certificate of participation will be awarded to all participating teams except for the disqualified teams.
2. A certificate of appreciation (or excellence) would be awarded to the winners.