



Geethanjali College of engineering and  
Technology



# Goal Rush

Robotica' 25

# RULE BOOK



# Goal Rush

## 1. GAME AND RULES:

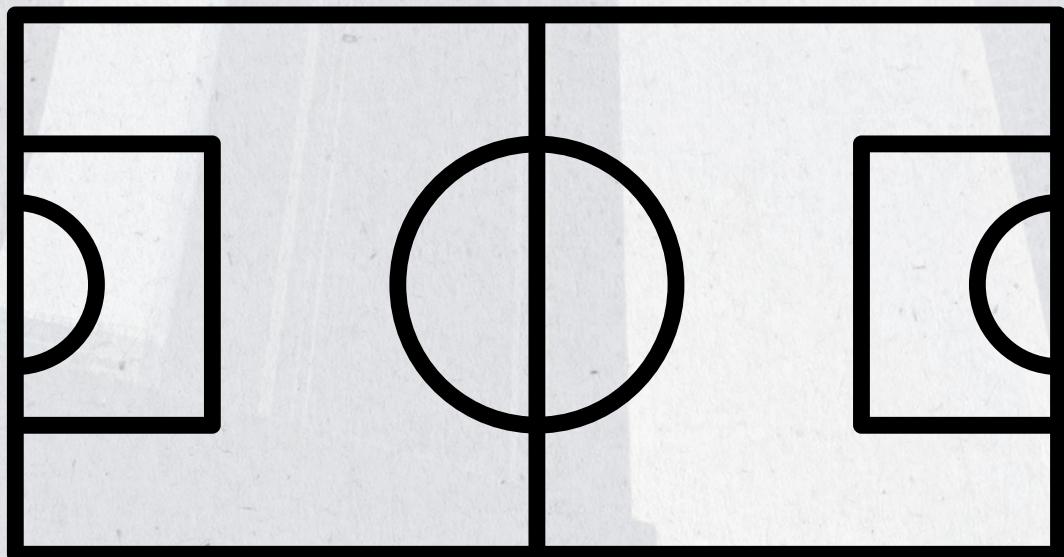
### 1.1. PROBLEM STATEMENT

- 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. GAMEFIELD AND OBJECTS:

### 2.1. ARENA

- 2.1.1. The arena consists of a rectangular field with a center circle and semi-circular goal areas on both ends.



### **3. TEAMS:**

- 3.1. There is no team limit.
- 3.2. Members of different institutions can form a team.
- 3.3. Only 2 members of a team are allowed to stay around the arena (one for controlling and one for assisting).
- 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 SUPPLYFORROBOTS**

- 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.THECOMPETITIONSANDMATCHES:**

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**

- 6.1.1. This Round has a time limit and will be decided on the day of the event.
- 6.1.2. Only one Robot is allowed to be used in this round per team.
- 6.1.3. Choosing the robot for this round is up to the participants.
- 6.1.4. Different colors and same size balls for different teams are placed in their half arena.
- 6.1.5. One team has to make a goal in the opposite team's goal post.
- 6.1.6. After any one of the teams finishes scoring all their 4 balls into the opponent's goal post, then white color balls common to both the teams will be placed in the center for the bonus. 3 white balls will be placed one after the other. Points = number of goals.  
(White Balls have more points).
- 6.1.7. White ball should be goaled after completion of their color balls. The participants for Round 2 will be selected based on points scored by all the participants in Round 1.

## **6.2. ROUND 02**

- 6.2.1. In this Round, opponents will be selected based on a previous round.
- 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.
- 6.3.2. 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

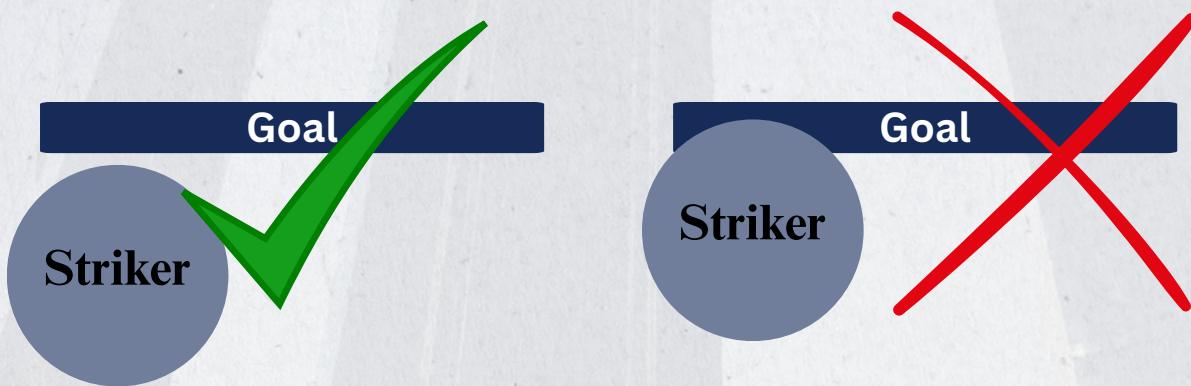


Figure: Acceptable and unacceptable position of Goalie and Striker

- 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. 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.

### **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.

## **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

## **EVENTCOORDINATORS:**

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**Goutam - +91 63024 22580**