

# TECHNICAL RULE BOOK

---

**BY**

**DHANESH : 9039551426**

**DIGVIJAY : 8871264896**

---

# ROBOTICS EVENTS

# ROBOSOCCER

Let's play soccer with technology!

## INTRODUCTION:

One of the most popular games played in the world is soccer. It has a history that dates back to almost 3000 years. This Game has evolved with time and has minor changes, though sticking to its initial game principles. With technological advancement, soccer is not just a game, rather it became a technology with the use of robot known as "Robo Soccer".

## SPECIFICATIONS:

### Team:

- A Team should consist of 3 participants.
- A member should not be common in other team.

### Arena:

- Area of Arena will be of 8 x 6 ft
- It is made up of plywood.
- It has two goal posts of dimension (400 x 200 x 250) mm.

### Robot:

- Dimensions should not exceed 300mm x 300mm x 300mm (L x B x H).
- Weight of robots depends on participant's choice, but should not exceed 2 kg.
- The control of robots can be wired or wireless.
- The power supply should not exceed 12/24 volts, and should be on board.
- Wire should be slack during the course of match. It should be of minimum 4 meter.
- Lego kits are strictly prohibited.

### Ball:

- The ball will be standard tennis ball.

## RULES AND REGULATIONS:

- A team shall consist of only one robot.
- Measurement of the bot will be done before the start of event by a panel of referee.
- No changes in the bot will be entertained after the registration.
- The robot should not damage the arena by any means.
- If both robots are immobile for 5 sec, the ball will be replaced at the starting points.
- If two fouls are committed by a team a penalty shootout will be given to the opponent team.
- Points will be given for goals only.
- If both team can't score within the time periods of match, then the winner will be decided by the 5 penalty shoot out.

### Ball Movement:

A robot cannot "block" the ball for more than 5 sec (Hint: Holding a ball means taking full control over the ball by removing all the degrees of freedom).

- The ball cannot be held underneath a robot. If found so match will resume from starting position.
- The ball must be visible at all times.
- Opponent must be able to access the ball.
- All the participants will bring their own robotics kit.
- Decision of the judges and the event organizers shall be treated as final.
- Own goals will be treated as a goal of the opposition and the point will be given to the opponent.

**Points Criteria:**

- One goal one point.
- Dragging the opponent bot will lead to a foul.
- On the 2nd Foul opponent will get a chance of a penalty.
- Penalty also awards same points.
- Points can be scored only by putting the ball into the goal.
- There is no negative points for own goal instead of awarding the point to the opponent.

**Round 1\*:**

- This will be a knockout round.
- Two teams will play against each other.
- The maximum time allotted for the match is 4 minutes (2+2).
- The time break between two halves is 2 minutes.
- Timeout of 3 min. can be taken by each team during the match for once.
- In case of tie, penalty shootout will be given.
- The judge's decision will be final and abiding.
- The number of phases for round one will depend on the number of participating teams.

**Round 2:**

- This is also a knockout match.
- After getting winners, round-2 will be played between them, which are our semi-final rounds
- The maximum time allotted for the match will be 4 minutes.
- The time break between two halves will be 2 minute.
- Match duration and time out will be as in the previous round.
- Winner of round 2 will play a match in round -3 i.e. final round.

**Round 3 (Final Round):**

- The rules will be informed before the start of match.
- The maximum time allotted for the match will be 4 minutes.
- The time break between two halves will be 2 minute.
- Team scoring maximum goals will win.
- If a match gets draw, then the winner will be selected by 5 penalty shoot out.
- Winner of this round will be the winner of the "Robo Soccer League"

**VENUE:** SSGI Mechanical Block

**REGISTRATION FEES:**

**Rs. 300/- per team**

**RE-REGISTRATION FEES (For Round-1 only): Rs. 200/- per team**

**Event Coordinators:-**

**Aniruddha Mishra 9644498497**