

ROBO-SOCCER

Problem Statement:

To build a manually controlled robot that is capable of competing one on one game of soccer . Soccer is one of a popular game. Let's make your bot to score maximum goals. The event mainly focuses on testing of mobility of robots and innovative pushing mechanism.

1. Robot Specifications:

- The following size limitations apply for each robot:
Width – 300mm max, **Length** – 300mm max, **Height** – No limitations
- The bot can be wired or wireless.
- For wired robots length of the wires must be sufficiently long to cover the entire arena (**approximately 7-8 meters**).
- The controlling wires should be bound into a single strip and long enough (preferably erected up to a certain height so that it does not entangle with the opponent's wires or robot)
- The wires must remain slack throughout the event.
- The robot should **not exceed more than 3 kgs. 10%** tolerance in weight is acceptable but beyond that the robot will be disqualified.
- The weight of the bot includes the remote control, batteries etc.

2. Controls:

- The robot should not have voltage more than 12volt dc between any two point.

- The participants will be provided with 230 volt,50 hertz AC supply.

3. Gameplay:

- The main goal of a participating bot is to shoot the ball into the opponents goal post.
- The Ball is to be taken across the field only by pushing. It cannot be clamped or lifted in the air.
- At no point of time should the ball be covered by all sides by the participant's bot or any part of it.
- The robots may not hold the ball while moving. Dribbler mechanisms can be used; however the ball must have at least one direction for free motion.
- Shooting is allowed with any appropriate mechanism.
- The robots can use the side wall for reflecting the ball. It won't be considered as a foul.
- A participant's bot is not supposed to interact directly with the opponent's bot when it is not in possession of the ball. If one of the bot is in possession of the ball, the other can attempt to dispossess it by attacking only the ball.
- Physical interaction between the bots in this process will be tolerated if it is judged that the attacking bot went for the ball.
- If a bot is found to commit a foul (directly hitting/obstructing motion of opponent's bot), the opponent will be given a free-shot.
- In case of entangling of the wires there can be a restart , with the ball

placed at the point where it was before the entangling of the wires, upon the discretion of the referee.

- Damaging the arena in any form will lead to immediate disqualification.
- After every goal being scored the ball would be placed back in the center circle and each bot shall restart from their respective D-lines
- Even own goals are counted.
- As soon as the time elapses the time-limit of 3 minutes a match is over and the bot having maximum number of goals wins.
- In case of a tie at the end of the stipulated time, there will be extra-time. If there is a tie after extra-time, first to score wins.

4. Judging Criteria:

- Handtouch will cause penalties.
- The decision of the judges are final.
- Final scoring and the penalties rules will be announced at the day of the event.

NOTE: Points given by the judges will be final .No argument will be tolerated , the team arguing with the judges can be disqualified.

5. Competition rules:

- Competition is open to all.
- Participants have to carry their institute identity card along with them.
- **A tennis ball will be used for the game. The weight of the ball will be 55-60 gm approximately and will have a diameter of 6.5 to 6.8 cm.**

- The organizers reserve all rights to change any of the above mentioned rules.
- Change in the rule if any will be notified to registered participants and will be updated on the Megaleio website.
- Not more than 2 members from a team can control the bot at any time. One member should always manage the wires.
- Participants who misbehave may be asked to leave the competition area and risk being disqualified from the contest.
- Robots or participants that cause deliberate interference with other robots or damage to the arena will be disqualified.
- Participants are asked to take proper care that they are not damaging the arena.

NOTE: Please note that , no participants will be allowed to enter the arena during the entire duration of the match .

6. Team Specification:

- Maximum number of participants per team:3
- Students from different educational institutes can form a team.

7. Entry fee:

The entry fee per team or individual would be **Rs. 150**

8.Prize :-

1st prize :- 3000rs/-

2nd prize :- 2000rs/-

3rd prize :- 1000rs/-

9.Contact details:

Robo-Soccer Coordinator: **DHRUV SHAH – 8888928851**

Robo-Soccer Co-Coordinator 1: **JEENI PATEL – 8983469365**

Robo-Soccer Co-Coordinator 2: **Mayuresh Gupta– 8149990658**

NOTE:

1. The participants are expected to be present at the venue before the event commences. Late comers are liable to be disqualified.
2. Certificate of participation will be awarded to all the participants in the form of E-Certificates. Only 1st, 2nd, 3rd place winners will receive the Certificates in the form of printed certificates.
3. For any queries contact the event coordinators.