

Robo Soccer

Task:

Design a remote controlled robot capable of playing soccer with the opponent robots.
Specifications:

Dimension and Fabrications

1. The machine should fit within a box of dimension 30 x 30 x 30 cm (maximum size). The external device used to control the machine such as the remote control box.
2. Each Team should have 3 robots minimum and 5 robots maximum.
3. The machine should not weigh more than 4 KG.
4. Wired machines are not allowed.
5. Use of readymade toys is not allowed, but one can use the readymade circuits.
6. Robots should be manually controlled.
7. No weapons (blades, spikes) of any kind are to be attached onto the robot.

General Rules

1. The potential difference between any two points must not exceed 24V at any point of the run.
2. Each team can consist of a maximum of 5 members.
3. Participants must not exceed age 19 years & academic qualification of Bachelor's first year only.
4. At the time of Robot Verification Robot Should be of 30*30*30 cm in dimension.

Robot Specifications

1. Each robot should be a manually wireless controlled vehicle.
2. The dimensions of the robot should not exceed 30 cm (l) * 30 cm (b) * 30 cm (h).
3. Ready-made toy cars or Lego are not allowed.
4. Weight of the robot must not exceed 4kg.
5. Shooting mechanism is compulsory.
6. A Keeper robot can extend its structure and mechanism up to an extra 15 cm at game time only.

Arena Specifications

1. The arena is a simple 18ft *12ft rectangle base enclosed by a boundary wall (height 20cm).
2. All the markings shall be as per that of a regular football field which includes the center line, center circle and the D area.
3. Size of the goal post will be 3ft (l)*2.5ft (h).
4. Size of the ball will be 10 cm (approx.) in diameter.

Game Play

1. Each match will be of 6 min in two halves of 3 min each.
2. Half time will be of 2 min in which teams can repair their bots in case of any damage.
3. In case of a tie extra time of 3 min will be given which will be in two halves of 1.5 min each.
4. If the winner is not decided after the extra time, then a penalty shootout will be done.

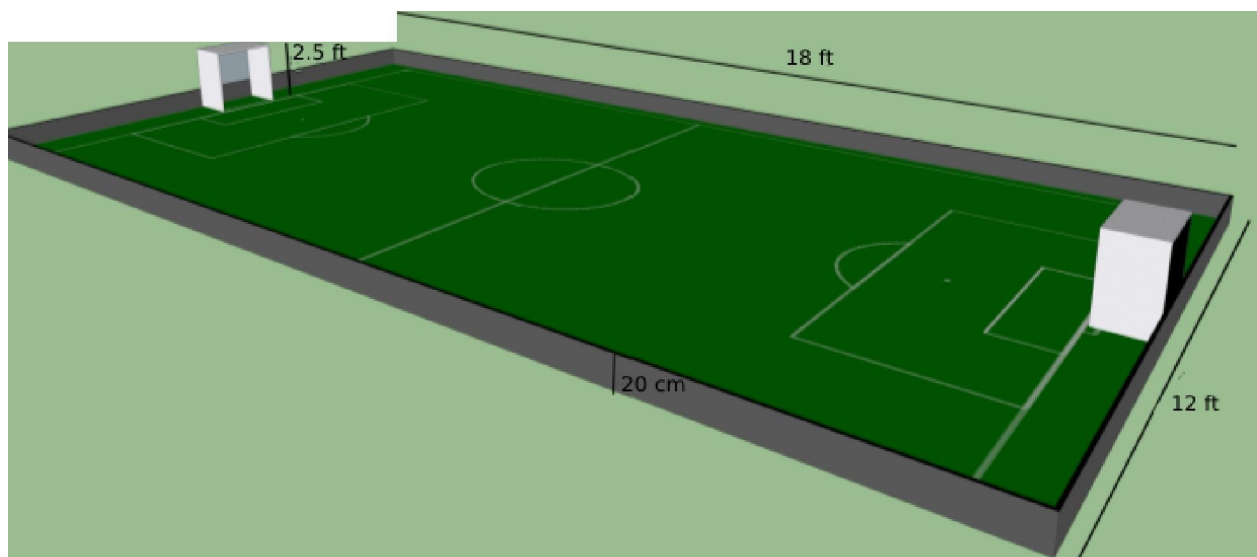
Event Rules

1. No dragging and picking of the ball is allowed.
2. NO Air blowing mechanism will be allowed.
3. If a robot throws the ball outside the arena, then the other bot will get an advantage of throwing the ball.
4. In the case of a free kick, the bot has to keep a minimum distance from the robot who is taking the free kick. Distance will depend on the position from where the free kick is taken.
5. Penalty kick will be given in case of foul in the D area.
6. Each penalty shootout will be of 30 second time (one on one).
7. In the case of a foul team will be given a warning (**as Yellow card**) and if the mistake is repeated, it will be disqualified (**as Red card**).
8. If the participating robot causes any kind of physical damage to the opponent's bot, it will be immediately disqualified.

Certificate Policy:

1. Certificate of Excellence will be given to all the winners.
2. Certificates of Participation will be given to all the teams who qualify in the first round of the competition.
3. If any team is sponsored by a college or organization, that organization will also get the certificate of participation. Teams need to verify the name of their sponsors (if any) during the time of registration to claim this certificate.
4. The teams which get disqualified due to disobeying any of the competition rules will not be considered for the certificate.

Arena detail



Registration Deadline: 3rd Ashad, 2079

Robot Verification: 5th Ashad, 2079
