



In an age when anything, just anything is possible, is it a surprise to hear robots playing football? When science and human enterprise has made the impossible possible, the hitherto unimaginable can take place. Use your grey matter to make your bot play soccer.

Event Category: Manual Robotics

Problem Statement: Build a manually controlled robot designed to avoid obstacles and score goals. Be prepared to take on other robots to score the maximum number of goals.

TASK

Robot will have to score maximum number of goals in a limited time.

GENERAL RULES

- A maximum number of participants allowed per team: 4 people.
- The participants will be provided with 220 Volts, 50 Hz standard AC supply.
- Participants will have to themselves arrange for any other power supply required for their robot.
- Teams cannot tinker with their bots during the play offs.
- LEGO kits or its spare parts or pre-made mechanical parts are not allowed.
- The robot should not damage the arena. This will lead to disqualification.
- No attack on the opponent bot is allowed.
- The decision of the coordinators will be final and binding.

**The rules are subject to change.

EVENT RULES





QUALIFIER

- The bot has to score maximum number of goals in a given time.
- While moving the robots have to avoid obstacles placed at different positions in arena.

The teams with highest number of goals will be selected for further rounds.

THE FINAL BLOW

- There will be one-on-one match between two teams.
- The teams has to score maximum number of goals against their opponents.
- The winner team will qualify for the further rounds.
- The robot cannot grab/hold the ball at any point of time during the match.

ROBOT SPECIFICATIONS

- The robot dimensions should not exceed 25cm x 25cm x 25cm. No tolerance is allowed in dimensions and weight of the robot.
- The maximum allowable weight of the robot is 2.5 kg.
- The robot can be powered on-board or off-board.
- The potential difference between any two electrical points on the robot must not exceed 24 volts throughout the run.
- External weights on bot are not allowed.



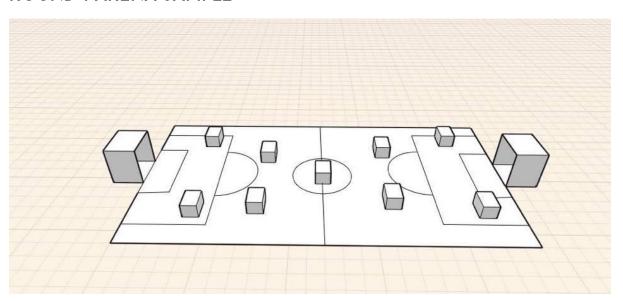


ARENA SPECIFICATIONS

- The dimension of the arena will be (10x8) square feet, with side walls of height 5 cm
- A ball of diameter 3 cm (approx.) will be used.
- The length of the goal post will be 45 cm.
- All arena specifications are supposed to be measured with a tolerance of 10%.
- The obstacles in the arena are flexible and can be changed accordingly.

**The arena description is subject to change in different rounds.

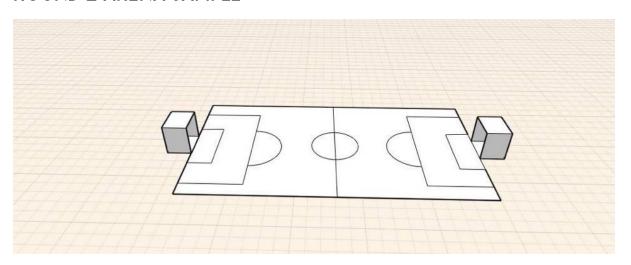
ROUND 1 ARENA SAMPLE







ROUND 2 ARENA SAMPLE



SCORING

QUALIFIER

SCORE = 200 + 50*[Number of goals scored] - 50*[Number of RESETs taken]

FINAL BLOW

Scoring is done on the basis of the number of goals scored by the two teams. Whosoever scores the maximum number of goals, wins the match.