EYE-BOT SOCCER

About:

The next generation of robots with vision - eye bots are ready to set ablaze the field of robo-soccer. On an uninhabited alien planet the eye bots will face off one another and will send live vision to their controllers on earth. Millions of light years away humans will control their bots in a challenging soccer match. It is time for robo enthusiasts to accept this challenge and test their metal hounds in a unique and perilous fight.

I. Task:

- Teams have to make a remote controlled bot with a camera fitted on it.
- The bot has to play soccer.
- The arena won't be in front of the participants, but in another location.
- The controller of the bot will only get video feed of the arena through the camera placed on the bot and has to play soccer by seeing the live video on his remote device.

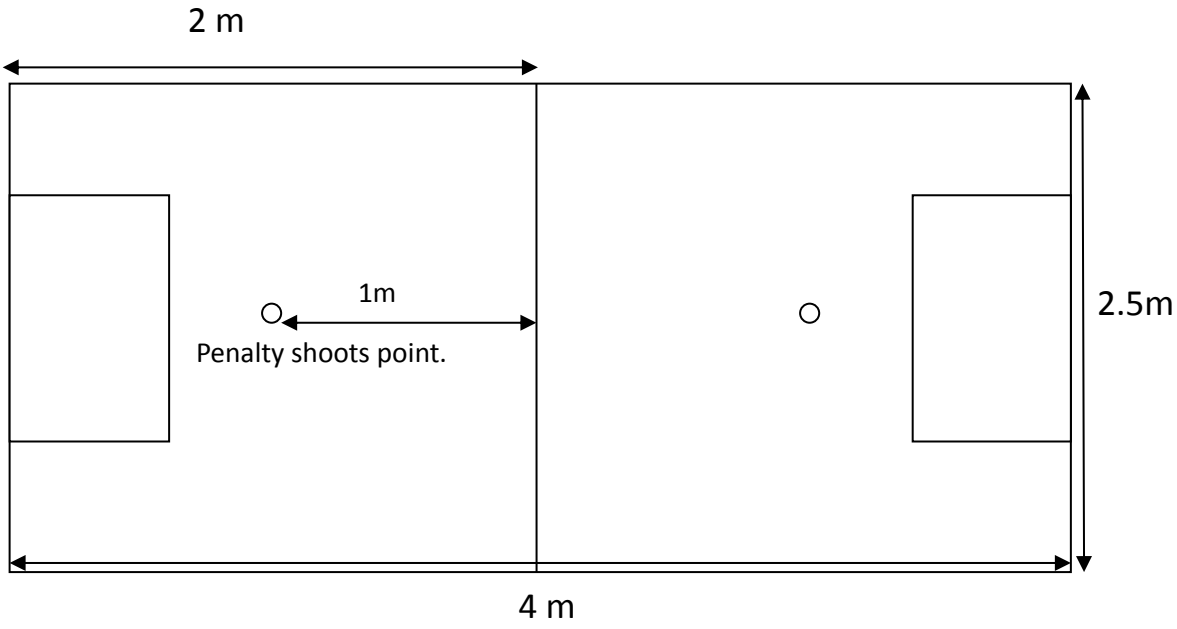
II. Bot Specifications:

1. Any wireless technology (GPS, VOIP etc.) can be used to establish remote connection between the bot and the remote device in the participant's hand. (We will be providing wi-fi network). The only condition is that it has to be long range, as the arena will be in a room different from that the participants will be in.

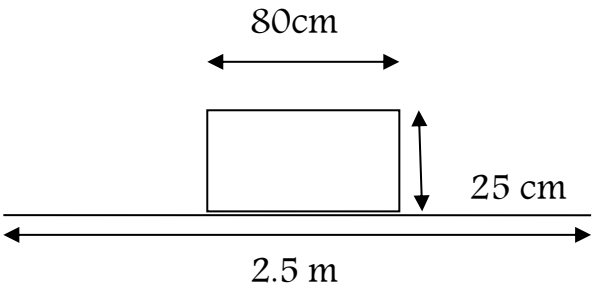
2. Arduino can be used as microcontroller.
3. For the remote device, participants can make use of either laptop/ mobile phone for controlling the robot and seeing the live video feed simultaneously.
4. For the purpose of the camera, any webcam or mobile can be placed on the bot according to the participant's convenience. Note that there is no constraint on the orientation of the camera placed on the bot. But, only one camera should be placed on the bot. Use of more than one camera will lead to direct disqualification.
5. For the purpose of playing soccer, participants can make use of any mechanism to push/kick the ball.
6. The maximum potential difference should not be more then 12V DC at any instant between any two points on the robot.
7. Participants with ready-made robots will be directly disqualified.
8. The dimensions of the robot must not exceed 30 cm*28 cm*45 cm (l*b*h)

III. Playing field:

1. On a cemented floor, a rectangular area symbolizing soccer ground will be marked with following dimensions:



Soccer field (Top view)



Goal post (front view)

2. Entire game field will be surrounded by bricks so that the ball can rebound from the walls and it does not leave the game field.
3. A standard tennis ball will be used for the game.
4. Remember, the goal post is a 2-D pass way through the fence.

IV. Format of competition:

1. Group Stage:

Teams will be divided in groups which will compete against each other in round robin basis.

2. Knockout rounds:

At the conclusion of the group stage, the knockout phase of the tournament will begin. The loser of each match played from this point onwards will be eliminated from the tournament. The exception is the semifinals, with the semifinal losers progressing to a 3rd place playoff.

V. Rules of the game:

1. During a match two robots of different teams will face each other.
2. A match will consist of two halves of 3 minutes each.
3. At the start of a match, both the robots will be placed at their respective penalty shoot point and the ball at centre line.
4. To score a point, a team needs to pass the ball through the corresponding goal post.

5. The team with maximum goals wins. In case of a tie the teams will take penalty shoots with other team's robot acting as a goal keeper with the ball placed on the penalty shoot point.

VI. General Rules

1) Organizers' decision shall be treated as final and binding on all. The organizers reserve the right to change any or all of the above rules as they deem fit.
2) Change in rules, if any, will be highlighted on the website and notified to the registered participants.
3) Organizers reserve the right to disqualify any team indulging in misbehavior or violating any rules. In case of any disputes/discrepancies, the organizer's decision will be final and binding.
4) Note that at any point of time, the latest information will be that which is on the website. The information provided in the pdf downloaded earlier may not be the latest. However, registered participants will be informed through mail about any such change.

VII. Team specifications:

A team may consist of a maximum of 4 members. Students from different educational institutes can form a team.

VIII. Forbidden Behaviours:

1. During the game, causing damage to the opponent's robot can also lead to disqualification.
2. No copying is allowed in the algorithm and software used in the car. Codes and algorithms used in the robot models of different teams of same university should be different clearly.
3. Organizers have a right to inspect the bots at any point of time and if any irregularity is found the team may be disqualified.

XI. Certificate Policy

- Certificate of Excellence will be awarded to the top 3 teams.
- Certificate of Participation will be given to all participating teams.

Disqualified teams will not be considered for any certificates

XII. Contact

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