Gujarat Technological University's Community Innovation & Co-Creation Centre

CiC3

Presents
2 Days Workshop on

"EYE - Robotics"

"If Human have eyes" then why not a robot

This is another amazing workshop dedicated to designing a robot using Image Processing and equip it with vision.
To learn the art of making Specialized Autonomous robot that is used to play variants of the most popular Soccer /FIFA leagues in two days at CiC3's EYE - Robotics workshop

Day 1 Image Processing for EYE Robotics

- Introduction to Image Processing
- Camera interfacing on Image Processing Software
- Colour detection in Image Processing Software
- Object Position mapping
- Serial interface in Image Processing Software

Day 2 Arduino Interfacing for EYE Robotics

- Basic of an Arduino
- Motor Interfacing with an Arduino
- Serial Interfacing in Arduino
- Image Processing Arduino integration

Fees: No Fees for Students

TO Register : http://goo.gl/forms/KQrszBbEkZ

Since limited seats are available.
Kindly register at the earliest.
Apply before 4 P.M, 31/12/2015

Who can apply?
All students interested in Robotics, Winners of Zonal TECHFEST Robotics event can apply.
Participants will have to bring their own Laptop and Web camera.

Selected students will get confirmation by email on or before 5 P.M, 01/01/2016.

Date: 02/01/2016 and **03/01/2016 Time:** 10:00 am - 5:00 pm
Venue:
CiC3, Room No: 131, Gujarat Technological University, ACPC Building, L.D. Engineering College Campus, Navrangpura, Ahmedabad

For any query you can contact:
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Details about Robo Soccer Competition:
(This Event will be Organizing on GTU Techfest)

Robo Soccer divided in Two Rounds

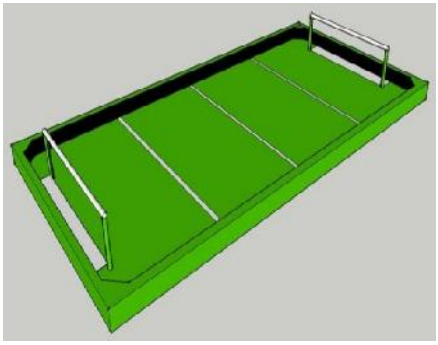
Round 1: For the Qualifying round your robot is required to find the randomly placed ball from the field and score the goal while having the robot at the LIMIT LINE.

Round 2: This round is a Penalty Knockout wherein, your robot has to act as a Goalie and the rival team acts as the Penalty Shooter and after 5 shoots the game turns vice versa.

- **Rules of Robo Soccer:**

  - **Robot Specification:**

    - **Robot must fit in a cube of volume 30*30*30 cm3**
    - **Robot must remain a single centralized It cannot be extend in any of the direction.**
    - **The batteries used must not be more than "24 Volts".**
    - **Weight limit of robot including gripper or dragging mechanism is 7 Kg.**
    - **If you are using overhead camera then wireless robot will preferred instead of wired robot.**
    - **AC power supply will be provided but you will have to bring transformer on your own and will be checked for the supply limit i.e. 24V Max.**



  - **Field Specification (Figure - 1):**

    - **Field play area is 4*8 feet**
    - **Goal post size is 700mm*100mm*30mm (l*w*h) and white colour at bottom.**
    - **Limit line is 500mm away from the goal post.**
    - **Filed colour is green. Boundaries are black in colour.**

  - **Ball Specification:**

    - **Ball colour is orange -**
    - **Regular table tennis ball.**

  - **Overhead Camera Specification (Figure - 2):**

    - **Each team have one continues camera feed.**
    - **Camera placement is shown in Figure:2**

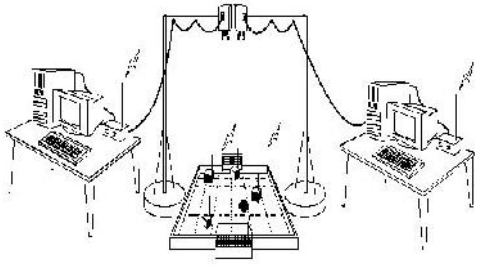


Figure 2

The one with the highest Goals wins the game. In this robot is required to kick from LIMIT LINE.