# **eyantra**

### **Robotics Competition**

2018

### TASK 4 - THIRSTY CROW

#### Arena Setup

- Make sure your Arena is setup as per the *Original Configuration.pdf*.
- The camera must capture the Whole Arena. Submissions in which only partial arena is visible will not be submitted.
- The AR\_Objects must be placed in the centre of their designated cells with their orientation set up as given in the *Original Configuration.pdf*.
- The lighting around the Arena should be proper to ensure detection of ArUco markers at all times.

#### • Instructions for Recording Video.

- The video should consist of 2 parts: Introduction Part and Demonstration Part.
- > Introduction Part: The video should start with a brief introduction
  - Opening screen of the video should be a shot of "Title\_slide.docx" printed on A4 sheet with the team details. Hold the sheet still for 3-5 seconds along with all the team members.
  - This should be followed by an introduction limited to a maximum of 2 minutes:
    - ♦ Short Introduction by each team member. Each team member can say his/her name and their department in college. This should take a maximum of 30 sec.
    - ♦ A 30 sec introduction by the team leader highlighting any interesting aspect of the theme's implementation.
    - ♦ A 1 minute description by the team leader highlighting any additional components like power supply, power distribution circuit, arm mechanism (made by team) etc.
- **Demonstration Part**: Record the actual theme demo according to the configuration given.
  - For recording the video you may use any screen recording software such as Apowersoft Online Screen recorder to capture the video from your laptop screen.
  - In you video, the OpenCV frame capturing the ArUco marker IDs as well as the OpenGL window should be visible (See Figure 1).





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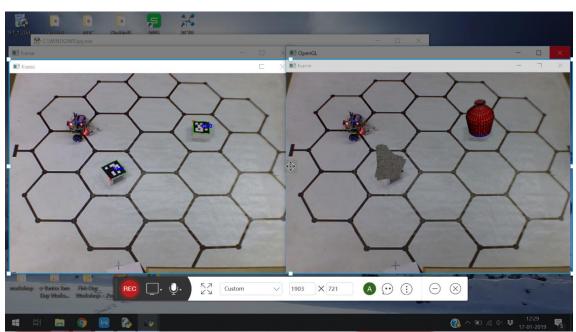


Figure 1: Apowersoft Screen Recorder

- Please follow the following steps after you start recording.
  - ◆ Place robot at start position. The robot should be switched OFF.
  - ◆ Start execution of python script. Wait for the OpenGL and the camera frame screens to appear.
  - ♦ Switch ON robot to start execution.
- You are allowed to capture only ONE run during demonstration. This should be a continuous video recording. You are allowed to take repositions according to the rulebook. Any repositions (if made) should be part of the one shot video.
- The video should end either
  - ♦ When the task is completed successfully or
  - ♦ If you exceed the allowed number of repositions
  - ◆ The maximum time (5 minutes) given to complete the task has elapsed.
- It is mandatory to upload the demonstration video even if your task is incomplete. You may record the video of best run of the task on the arena
- You may shoot the Introduction and Demonstration part separately and merge them together to submit. However any kind of editing with the Demonstration video is not allowed. Any editing detected in the video will lead to disqualification of the team.
- > Uploading video on Youtube:
  - Upload video of the Original Configuration with the title eYRC#TC#<Team ID> Original Demonstration.
  - Upload video of the Bonus Configuration with the title
    eYRC#TC#<Team ID> Bonus Demonstration.
- Please note that while uploading the video on YouTube select the privacy setting as Unlisted.



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You need to upload the video as instructed on the Portal.

#### • Instructions for Code Submission

- > Create a folder and rename it **Python Code**. Copy your python scripts and supporting files (blender models, texture files, camera calibration files etc) into that folder.
- > Create another folder and rename it to **AVR Code**. Copy your AVR project folder with the robot code in this folder.
- > Create a third folder and rename it **eYRC#TC#<TeamID>#Code**. Copy the above two folders created into this folder. Convert it into zip file.
- ➤ Upload the eYRC#TC#<TeamID>#Code as per instructions given on Portal.

