e-Yantra Robotics Competition (eYRC-2016)
Task 3 – Explorer Bot

This task is divided into four parts:

- Flex Printing
- Robot Construction
- ArUco market Detection.

Please find the following folders within Task 2 folder that contains this Read Me file:

- First Folder is Task_3.1_Flex_Printing
  - o Please find the following folders/files in this folder
    - ▪ Arena_design_PDF
      - • Explorer_bot.pdf
      - • Backup_of_explorer_bot.pdf
    - ▪ Flex_Printing_Read_Me.pdf
  - o Open the file *Flex_Printing_Read_Me.pdf* and follow the instructions to print the Arena.
- Second Folder is **Task_3.2_Aruco_Marker_Detection**
  - o Please find the following files in this folder
    - ▪ Aruco_Tutorial.pdf
    - ▪ Problem_Statement.pdf
- Third Folder is Task_3.3_Robot Design
  - o Please find the following file in this folder
    - ▪ Problem_Statement.pdf
- Forth Folder is **Tutorials**
  - o Please find the following file/folder in this folder
    - ▪ Multitasking_with_Arduino
    - ▪ Explorer_Bot_resources.pdf

Submission Instructions

The teams are expected to upload the solutions as follows:

Flex Print Image submission:

- Follow the instruction given in Flex_Printing_Read_me.pdf to upload the image of flex.

File Submission:

- Follow the instruction given in Problem_Statement.pdf to write the python scripts for problem mention in this document

- Save the python scripts in <Team_ID>_*Task3* folder and compress it in .zip format. Then, upload <Team_ID>_*Task3.zip* in the Task2 tab of the portal.

Video link submission:

- Submit video link as instructed in Problem_Statement.pdf inside Robot_design folder to **Video Submission: Robot Construction** submission box on the portal and

- Submit video link as instructed in Problem_Statement.pdf inside Aruco_marker_detection folder the **Video Submission: ArUco Marker Detection** submission box on the portal.

Follow upload instructions in Task 3 tab on portal.

Warning:

- **IMPORTANT**: The document you submit should be in YOUR OWN WORDS. To avoid any copyright violations, you must NOT copy phrases directly from manuals or web.

- The team should NOT mail or upload the document anywhere else except on the portal.

- Teams failing to submit the document by the deadline will lose the marks for this task.

- e-Yantra WILL NOT entertain any request for extension of deadline for uploading the task.

- e-Yantra holds complete discretion to disqualify a team if any foul play is suspected.