



Robotics Competition 2023-24



### eYRC 2023-24: Hologlyph Bots



**Forum** 

# Task 3B: Arena Setup

This subtask has two parts:

- Flex Printing
- Overhead Camera Setup

### **Flex Printing**

- 1. Download the Hologlyph\_Bots\_Arena.pdf from here.
- 2. You must provide this Hologlyph\_Bots\_Arena.pdf file to a flex printing vendor near you.
  - Dimensions of the arena can be viewed in .pdf file by pressing CTRL+D in Adobe Reader.
    For your reference and verification, the flex sheet to be printed should be of dimension 8 x 8 sq feet.
  - Note that the dimension of the grid (drawing area) is 220cmx220cm and is divided into 10 unit of 22cm each in both x and y directions.
- 3. *(for submission)* Place the arena on floor and take a photograph from top view of the arena such that the entire flex is captured in a single frame.

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#### Instructions for Vendor

- The vendor must print the arena directly from the .pdf file.
- The vendor cannot make any changes in the .pdf file provided for printing.
- Print the flex on the glossy side with a Star Quality, Glossy finish. For CMYK, ensure that K (black) is set to 100%, matching the settings in the attached PDF

#### General instructions for keeping flex sheet in good condition

- Leave sheet open to dry in air after printing. After this, you can roll it and bring it home.
- Do not fold the flex sheet. Always keep it rolled after using it.
- You will be using the printed flex sheet throughout the competition, so teams are advised to store the rolled up flex sheet in a dry, safe place.

## **Overhead Camera Setup**

- 1. Mount the camera at about 2.5m height pointing downwards ofcourse.
- 2. View the camera feed using Cheese App on Ubuntu or any other software or following the Camera testing instruction in Task 3C (using OpenCv and Python) and make sure the four corner Aruco markers are clearly visible and not too distorted.
- 3. (for submission) Capture/Save an image from the camera feed for submission.
- 4. (for submission) Take a photo of the camera setup along with the Arena, for submission.

### **Submission instructions**

- Compress the three images (from above instructions) into zip and name your zip file as: hb\_task\_3b\_<team\_id>.zip.
- Submit this single ZIP file on the eYRC Portal.