

Supply Bot

Task 2 - Flex Printing and Arena Preparation

1. Flex Printing

- Please find the “Supply_Bot_Arena.pdf”, “Supply_Bot_Arena.png” and “Supply_Bot_Arena_Dimension.pdf” file within the Task 2 folder.
- You must carry the Supply_Bot_Arena.pdf file in any storage device to the vendor who prints the flex sheet.
- Dimensions of the arena can be viewed in the .pdf file by pressing CTRL+D in Adobe Reader. It should be 6feet x 6feet. For your reference and verification, refer Supply_Bot_Arena_Dimension.pdf.
- Team is not allowed to make any changes in the .pdf file. Any team making such manipulations will be disqualified from the competition

Instructions for Vendor

- The vendor must print the arena directly from .pdf file.
- The vendor cannot make any changes in the .pdf file provided for printing.
- If the vendor is using the CMYK color profile for printing, he must set the K value to 100 as that would give perfect black color for the black lines of the arena.

General Instructions for keeping the flex sheet in good condition:

- Leave the sheet open for about 30 minutes to dry in air after printing. After this, you can roll it and bring 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 the teams are advised to store the rolled up flex sheet in a dry safe place.

2. ArUco Preparation

The ArUco prepared below will be used for detection so it has to be placed on top of the bot. The libraries provided in the Task 1 should be used for ArUco detection. The dimensions of ArUco markers are given in Figure 1.

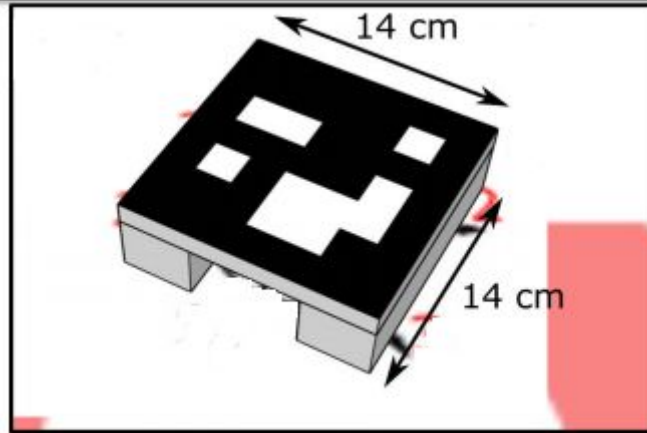


Figure 1: ArUco marker Dimensions

The length and breadth of ArUco marker is 14cm.

Materials required to construct the ArUco marker platform:

1. Sunboard
2. A4 sheets for printing the ArUco marker

Steps to be followed:

1. Cut the Sunboard into square sheet of dimensions 14cm x 14cm. Use Sunboard of 5mm thickness as shown in Figure 2.

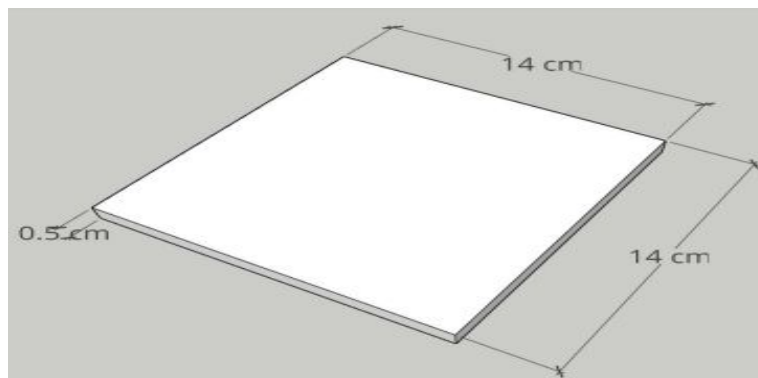


Figure 2: Square Sunboard

2. Paste the ArUco marker on the Sunboard using glue or double sided tape as shown in Figure 3.

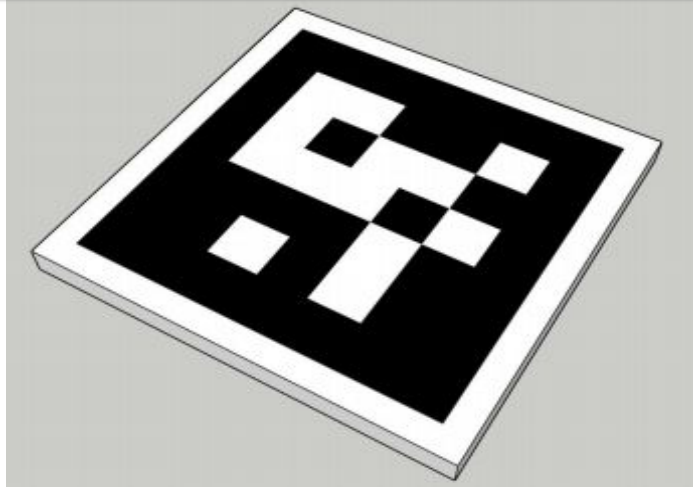


Figure 3: ArUco marker

3. Submission Instructions

- Print the arena on the flex sheet as per the instructions given.
- Click a picture of your printed Arena full view of the arena. This picture must clearly depict the printed flex sheets.
- Follow the instructions given below for submission on the portal. In this task, you are supposed to submit only one .png files of the arena as instructed above
 - o Save the captured image files with the name as: “SB#<Team_ID>_Task2.png”. For example, if your Team ID is 9999, name your image file as: SB#9999_Task2.png. Kindly note that the file name should be as specified with the extension as .png only.
- Upload the image file on the portal under Task 2 tab.