ERTS Lab
Department of Computer Science and Engineering
Indian Institute of Technology Bombay,
Powai, Mumbai-400 076.

Certificate of Completion

This is to certify that Tirth Snehalbhai Patel, a student of SAL College of Engineering, Gujarat has participated in the **e-Yantra Robotics Competition (eYRC 2021-22)**.

He/She is a member of the team having the following team members:

1. Dhairya Patel
2. Harshil Divyakant Khatri
3. MIHIR KULKARNI
4. Tirth Snehalbhai Patel

This team has successfully completed all the assigned tasks in Strawberry Stacker theme.

Prof. Kavi Arya
Principal Investigator, e-Yantra
Professor
Department of Computer Science and Engineering
Indian Institute of Technology Bombay

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e-Yantra is a project sponsored by MHRD, Government of India, under the National Mission on Education through ICT (NMEICT).

[P.T.O]

Theme: *Strawberry Stacker*

Theme Description: Reduce physical toil on strawberry farms by making strawberry stacking for transport an automated process using multicopters. You will learn concepts in control systems, image processing, mission planners and distributed systems, while using the typical software stacks used to control flying vehicles and plan missions for them. The final goal is to build an application where we control a team of multicopters and achieve the task of picking strawberry boxes from a field and stacking them onto a transport trailer. These tasks take place in a simulated environment that allows us to prototype our application quickly and smoothly, while ensuring application transferability to real hardware.

Theme Learning: *ROS, Gazebo, PX4 Autopilot, Python.*

Team Learning: The team has been awarded **Level 2** in the e-Yantra Robotics Competition (eYRC).

This level indicates that the team was able to demonstrate a clear understanding of the problem statement via a full implementation and was in top 10-30 ranked team in the competition

Certificate Table

Certificate Level	Certificate Description
Level 1	Certificate of Merit
Level 2	Certificate of Completion
Level 3	Certificate of Participation
Level 4	Letter of Participation

*level 1 > level 2 > level 3 > level 4