Atharva Bhosale

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Education

BTech, Mechanical Engineering: Indian Institute of Technology Tirupati	CGPA: 7.7/10	2024 - 2028
Class 12, HSC (MH) : Vidya Valley International School, Chinchwad	Aggregate: 86.33 %	2022 – 2024
Podar International School Chinchwad (CBSE)	Aggregate: 95.80%	2009 – 2022

Experience

E-Yantra 2025 (Holo Battalion), IIT Bombay: *[Aug. 2025 –Jan.2026]*
- Worked on image processing and numpy for pose estimation of bot using a overhead camera.
- Developed and tested **ROS2-based holonomic mobile robot** involving inverse kinematics and motion control.
- Designed and developed an entire bot body CAD Model and PCB design.

Core member at Techmaniacs (Tech Club) , Robotics Team: *[July. 2024 – Jan. 2026]*
- Hands-on experience with Rigbetel Labs TourtiseBot, implemented SLAM, writing custom teleoperation and hardware interface node using Python ROS2 (Humble).
- Hands-on experience with drone building, calibration of software, hardware, and wrote a program for geofencing a particular region in ArduPilot.
- Conducted workshops for students to teach them the basics required for robotics.

Projects

Simple Mobile Robotic Arm (2D) Github Link: *[Dec.2024]*
- Building a robotic arm simulation capable of linear motion and pick-and-place tasks using ROS2 (Humble).
- Implemented ROS2 publishers/subscribers for motion control and feedback in a custom simulation environment.
- Demonstrated basic automation and teleoperation using Python scripting and ROS2 topics.

Catch Nearest Turtle Github Link: *[Dec.2024]*
- This ROS 2 package simulates a turtle in the turtlesim environment that automatically catches the nearest turtle.
- It uses ROS 2 nodes to detect the closest turtle and move toward it until it's caught.
- Parameters can be change in the yaml file which is present in my_robot_bringup/config/*** and play around with it.

Skills

Computer Skills:	C++, Python, Data Structures and Algorithms, HTML, MS Word, MS Excel, MS PowerPoint
Software Skills:	Robot Operating System, Fusion 360
Relevant Coursework:	Introduction to Programming (IIT TP), Introduction to Data Science and Machine Learning (IIT TP), Numerical Analysis(IIT TP), Mechatronics System Design (IIT TP)

Positions of Responsibilities

Team Captain E-Yantra 25:	Led a team of 3 students to participate in the E-Yantra Robotics Competition 2025.	*(Aug. 2025 - Jan. 2026)*
Core member Techmaniacs:	Conducted various workshops and events for the technical club of IITTirupati.	*(2024 - 2026)*

Achievements

1. **TechHeist (Tirutsava-25, IIT Tirupati):** 2nd Runner up

Extracurriculars and Hobbies

- Hosted several events in college (Cultural Fests, Technical Workshops, Sports Events, etc).
- Love lawn tennis, solving puzzles, and personal finance.