

ABHIJEET VAIDYA

AUTOMATION AND ROBOTICS ENGINEER

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SUMMARY

Automation and Robotics undergraduate with hands-on experience in designing and developing robotic systems, including obstacle-avoiding robots and pick-and-place manipulators. Skilled in motor control, embedded systems, and automation logic with a strong interest in industrial automation and smart manufacturing systems. Passionate about building scalable automation solutions that improve efficiency and reliability in real-world applications.

EDUCATION

B.E In Automation and robotics **Aug 2023 - Present**
Modern Education Society Wadia College of Engineering, Pune University

PROFESSIONAL EXPERIENCE

Internship, Botmakers Tech Pvt, Ltd **Nov 2025 - Feb 2026**

- Assisted in the design and development of autonomous robotic systems, including obstacle-avoiding and line-following robots.
- Worked on integration of DC motors, BO motors, motor drivers, and sensor modules for motion control applications.
- Contributed to assembly and testing of robotic kits, ensuring proper wiring, calibration, and performance optimization.

PROJECTS

Mobile Arm Robotic System **Jan 2025 - July 2025**

- Integrated a wheeled mobile base with a multi-DOF robotic arm for coordinated movement and object handling.
- Implemented motor control logic using microcontroller-based architecture for precise navigation and arm actuation.

Home Automation **July 2025 - Dec 2025**

- Developed an automated control system for lighting and appliances using relay modules and microcontroller architecture.
- Integrated wireless communication (Wi-Fi/Bluetooth) for remote device control.

Gesture Controlled Robotic Hand Using OpenCV **Nov 2025 - Feb 2026**

- Implemented real-time hand gesture recognition using OpenCV and image processing algorithms.
- Processed camera input to detect finger positions and map them to servo motor movements.
- Developed a control interface to translate visual gesture data into actuator commands.

SKILLS

- Automation & Control: Motor Control, Ladder Logic, Sensor Integration .
- Embedded Systems: Arduino, ESP8266/ESP32, Microcontroller Programming.
- Programming: C/C++, Python, HTML, CSS.
- Design & CAD: SolidWorks / AutoCAD, Fusion 360.
- Electronics: Circuit Design, PCB Basics.
- Tools & Software: Canva, Vs code, Arduino IDE, 3D Printing.