TIRTH V. BORDA

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EDUCATION

The maharaja saiyajirao university of baroda   **2020 - 2024**
Bachelor of Engineering in Mechanical engineering
- CGPA: 8.60

Ashadeep vidya sankul   **2018-2020**
H.S.C (12th)
- Percentage - 79%

JB and KARP vidya sankul   **2017 - 2018**
S.S.C. (10th)
- Percentage - 86%

EXPERIENCE & COMPETITIONS

Agricultural Automation Robot   **June 2024 – October 2025**
- Designed a multi-purpose agricultural robot for Indian farming applications.
- Planned for harvesting, spraying, and other major farm operations.
- Developed AI-based crop row detection for autonomous navigation.
- Contributed to mechanical design, embedded control, motor systems, and sensor integration.

Project Intern │ ZARP Labs   **Nov 2021 - Jan 2022**
- Worked on circuit design and electronic hardware testing for the C20 Humanoid Robot.
- Assisted in human–robot interaction system development.
- Supported hardware integration and performance testing to improve responsiveness.

World Robotics Competition – Technoxian Robotics Championship   **July - 2021**
- Represented the university robotics club at a national-level competition in New Delhi and built a combat robot within 15 days.
- Worked on mechanical design, motor selection, wiring, and control system integration.
- Developed strong, rapid prototyping, teamwork, and problem-solving skills under pressure.

TECHNICAL SKILLS

- 3D/2D Design & Modeling: SolidWorks
- Electronics: Microprocessors, Microcontrollers, Sensors, Actuators
- Robotics & Automation: Drive systems, actuators, robotic mechanisms
- Embedded Systems: Arduino / ESP32, motor drivers, PWM, UART, I2C
- AI & Computer Vision: Machine learning basics, OpenCV, image processing
- Additive Manufacturing: 3D printing & various processes

SOFT SKILLS

- Languages: Gujarati, Hindi, English
- Teamwork & Collaboration
- Leadership
- Innovative Thinking
- Efficient Work Scheduling
- Field-oriented problem solving

AREA OF INTEREST

- Fundamentals of Machine & Mechanism Design
- Mechatronics Systems Learning & Development
- Robotics & Automation Domain
- Product Design & Development
- Applied Physics in Engineering Systems

EXTRA CURRICULER COURSES

- Internet of Things (IoT): Introduction to IoT & Embedded Systems (Coursera)
- Robotics: Basics and Selected Advanced Concepts (NPTEL)
- Arduino: Platform & C Programming
- Control Systems – Fundamentals (NPTEL)
- Supervised Machine Learning: Regression & Classification (Coursera)
- MATLAB Programming for Engineers & Scientists (Coursera)
- Machine Learning Specialization (Coursera)
- Deep Learning Fundamentals (Coursera)