Abhishek Mitra

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CAREER OBJECTIVE

Ambitious B. Tech ECE student seeking a challenging role in the field of electronics and communication. Strong understanding of electronic circuits, microcontrollers, electronic devices, and microprocessors with excellent problem-solving skills. Looking to leverage my technical expertise and passion for innovation to design, develop, and implement cutting-edge solutions in embedded systems and IoT development, while continuously learning and staying up-to-date with the latest advancements in the field of electronics and communication engineering.

EDUCATION

Sagar Institute of Science and Technology, Gandhi Nagar, Bhopal
Bachelors of Technology 2022 - 2026
Electronics and Communication Engineering GPA: 6.32

Vidya Niketan H. S. School, Bhopal
12th Percentage – 72

Vidya Niketan H. S. School, Bhopal
10th Percentage – 77

SKILLS

Microcontrollers and Microprocessors: ATmega328P, ATmega2560, ESP32, Arduino
Embedded Programming Languages: C, C++, Python, Embedded C, Arduino IDE
Hardware Design and Development: PCB Design (KiCad), Schematic Layout, Circuit Prototyping
Automation: IoT
Front end Web Development: HTML, CSS, JavaScript, Bootstrap

Projects

Automatic Writing Machine
• Arduino UNO: Used to access g-code commands given.
• CNC Shield: Controls stepper motors for X and Y axis.
• Stepper Motors: Controls X and Y axis for pen movement.
• Servo Motor: Used for Z-axis, for pen up and down.
• Inkscape: Converts normal photos into G-codes.
• UGS: Universal G-code Sender, used for sending g-codes to CNC Shield for movement.

Smart Irrigation System
• Arduino UNO: Used to control sensors.
• Moisture Sensor: Senses the moisture presents in the soil and sent data to Arduino UNO.
• Relay: When moisture reaches below a threshold value than Arduino gives command to relay to turn on the motor.

Medibot (Line Follower Bot with pre-defined map)
• Arduino UNO: For all the programming attached with various devices.
• IR Sensors: They are used for the bot as the help bot to be always on the track.
• L298N Motor Driver: Used to control the DC motors for moving the bot.
• Bluetooth Module: For wireless connectivity of the bot.
• Ultrasonic Sensor: For obstacle avoidance.
• RFID: Used for the correct room detection.

CERTIFICATIONS

Arduino craft
• Arduino UNO
• Arduino IDE
• Various Sensors
• Made 15+ minor projects and 2 major projects on home automation and Bluetooth control

Web Development
• HTML
• CSS
• JavaScript
• Bootstrap

Python
• Basic python programming

Workshops

• Arduino
• PCB Designing
• Web Development
• Data Structure using C programming

CO-CURRICULAR ACTIVITIES

• Vice-President of Electro-Pulse committee (Student cultural club)
• Lead of Tech Dhina Dhin (TDD) a national level event which is held in our college every year. I was the lead of TDD 2k25 in the year 2025.