

# Ansh Mehta

[ansh@bu.edu](mailto:ansh@bu.edu) | (857) 384-1844 | <https://www.linkedin.com/in/anshmmehta> | Boston, MA

## EDUCATION

### M.S. Robotics and Autonomous Systems

Boston University College of Engineering | GPA: 3.80/4.00

Boston, MA, USA

Expected January 2025

### B.Tech. in Electronics Engineering

K.J. Somaiya College of Engineering | GPA: 3.30/4.00

Mumbai, MH, India

August 2019 - May 2023

## EXPERIENCE

### Robotics Programming Intern, The Innovation Story, Mumbai

June 2022 – July 2023

- Solved control challenges for various mechanisms, including projectile shooting and pick and place operations.
- Programmed robots in Java, MATLAB, and Embedded C to solve diverse challenges.
- Secured the Finalist Alliance Award at the FIRST Asia-Pacific Open Championship as a Team Mentor.
- Educated over 2000 students in digital literacy, STEM, and robotics under the Amazon Future Engineer Program.

### Electronics Systems Intern, Accelo, Mumbai

March 2022 – May 2022

- Engineered the ECU and wiring harness for two EV Vehicles, a pickup, and a shuttle.
- Tracked the vehicle's GPS coordinates periodically and pushed the same to the cloud-based server for an API.
- Scripted programs to fetch data from custom data logger, saving it to a cloud-based data management system.

### Embedded Software Intern, AM Prototyping Labs, Mumbai

June 2021 – Aug 2021

- Developed firmware and control UI for industrial DLP resin-based 3D Printers.
- Coded low-level firmware for control of motors, projectors, and sensors, providing resolutions up to 38 Microns.
- Developed Linux-based front-end GUI and back-end software responsible for analysis of printer settings, processing layers, and communicating with the low-level controller.

### Embedded Software Intern, Rymo Technologies, Mumbai

April 2021 – May 2021

- Engineered embedded solution for interfacing sensors and actuators to monitor patient movements.
- Utilized AVR C to monitor the force feedback and keep track of the rate of change to help with rehabilitation.
- Systematized the data flow using protocols like I2C and SPI.

### Embedded Software Team Lead, Team KJSCE Robocon, Mumbai

August 2021 – August 2022

- Developed low level device drivers and firmware, controlling actuators and reading sensors and HI devices.
- Led a team of 35 Junior Members to achieve an All India Rank 6 at DD Robocon 2022.
- Co-developed custom Development boards based on the AVR128DA48 Microcontroller.

## PROJECTS

### Formation Control using Multiple Robots

- Achieved formation control using Arduino-based robots, creating formations with accuracies under 35cm.
- Created a simulation environment using ROS2 to test path planning, prior to setting up hardware.

### Mobile Robotic Platform

- Engineered a 3-wheel holonomic drivetrain coupled with 2D LiDAR, Proximity, and Long-Range Distance Sensors for autonomous navigation while mapping the environment.
- Programmed using the ROS Framework, with tools like RViz to visualize data from the robot.

### 6- Degree of Freedom Articulated Robotic Arm

- Fabricated a Robotic Arm capable of positioning the end effector accurately up to 2mm in 3D cartesian space.
- Utilized concepts like Inverse Kinematics, Power Electronics, Embedded Programming, and Control Systems.

### Additional Projects

Humanoid Robot Leg Design, Wrist Rehabilitation Sleeve, Contactless Hand Sanitizer Dispenser, SCARA Robotic Arm

## LEADERSHIP & ACTIVITIES

Embedded Software Team Member, Team KJSCE Robocon

October 2019 – August 2021

Student Mentor, K.J. Somaiya College of Engineering

June 2020 – August 2020

## SKILLS

**Programming:** C, C++, Java, Python, MATLAB, Qt

**Embedded Systems:** ARM Cortex M3, Cortex M4, AVR, Embedded C, VHDL, Linux, RTOS, Assembly

**Software:** EasyEDA, SolidWorks, AutoCAD, Fusion 360, Altium Designer

**Engineering:** 3D Printing, Manufacturing Processes, PCB Designing, ROS, ROS2