Saurabh Desai

DOB.: 19/02/2003
Pre Final Year Btech
Mechanical Engineering
Veermata Jijabai Technological Institute, Mumbai

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Education

•Veermata Jijabai Technological Institute (VJTI) *2021-25*
Btech Mechanical CGPA:- 7.43 : 2023

•Balasaheb Desai College Patan *2019-21*
HSC, Maharashtra Percentage:- 96 : 2021

Relevant Courses

•Robotics Machine Design Automotive Fluid Mechanics Thermodynamics
•Industry 4.0 and IIOT Industrial Engineering And Management Innovation and Entrepreneurship

Projects

Weed Control Robot *Feb. 2024*

Designed a 3D model of a weed control robot using SolidWorks.
- Engineered a robust four-wheel-drive system integrated with a chain drive mechanism for optimal mobility.
- Designed a weed control mechanism featuring cutting blades and motors with linear actuators for precise height control

Mars Rover Prototype *Aug-2023*

Participated in IRC Mars Rover Prototype Competition as a key member of the Mechanical Subsystem team.
- Designed rover model using SolidWorks for precision
- Analyzed components via Fusion 360 for structural integrity.
- Manufactured parts using 3D printing, laser cutting, CNC.
- Utilized AL6061 T6 for structural, ABS for 3D printing.
- Crafted a Mars rover prototype for analog environment trials, showcasing proficiency in robotics,3D Designing, PCB design, and sensor integration.

3-Degree of Freedom Robotic Arm *June-2022*

Designed a 3-DOF robotic arm with expertise in kinematics and C programming for precise rotational control.
- Utilized tools like Gazebo and RVIZ, applying modeling and simulation for kinematic analysis.
- Attained precise control of the robotic arm's motion, ensuring enhanced capabilities in applications like automation and manipulation tasks.

Remote Control Aircraft *Jan.-2022*

Contributed to lightweight, balsa wood RC aircraft development with a focus on design and aerodynamics.
- Employed tools and technologies relevant to aircraft design, including modeling software and remote control systems.
- Achieved a successful outcome with a functional remote control aircraft, emphasizing durability and performance for recreational and educational purposes.

Technical Skills

•Software's: SolidWorks, Ansys, AutoCad, Fusion 360, Ultimaker Cura
•Programming Languages: C++ , ROS
•Platforms: VS Code, Git, GitHub

Achievements

•Joint Entrance Examination (JEE Advanced) AIR 22089 *2021*
•Joint Entrance Examination (JEE Mains) AIR 48640 *2021*
•Maharashtra Common Entrance Test (MHT-CET) Percentile:- 97.78 *2021*

Positions of Responsibility

•Member of Mechanical Subsystem Vishwa, VJTI (Astronomy club of the institute.) *Nov. 2022 - Present*
•Member of Power Transmission sector VJTI Racing *March 2022 to June 2023*
•Operations Executive Technovanza,VJTI *Aug. 2022 to June 2023*
•Chief Content Manager Enterpreunership Cell,VJTI *Aug. 2022 to June 2023*