Henil **Shah**

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| **OBJECTIVE** | Enthusiastic Mechanical Engineer eager to contribute to team success through hard work, attention to detail and unique skill set. Motivated to learn, grow and excel in the field of Mechatronics. |

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| **WORK**  **EXPERIENCE** | **Graduate Engineer Trainee, SunRobotics Technologies, Ahmedabad, Gujarat**  07/2020 – Present   * Worked on Several projects. Made Solidworks 3D model of different robots. * Performed assembly of the designed robots with sensors, motors, drivers and microcontrollers. * Wrote code for the required operations in Embedded C and Python via Arduino IDE. |

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| **EDUCATION** | **Bachelor Degree in Mechanical Engineering, Indus University, Ahmedabad**  2016 - 2020   * CGPA – 8.72/10   **Higher Secondary School Certificate, St. Anns School**  2014 –2016   * Science (A group) - 78%   **Secondary School Certificate, St. Kabir School**  2014   * CGPA - 8.8/10 |

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| **ADDITIONAL**  **SKILLS** | **CAD Design**: AutoCAD 2D, Solidworks, PTC Creo.  **Microcontrollers**: Arduino, Raspberry Pi, NodeMCU, Esp8266.  **Programming**: Python, Embedded C, MATLAB, HTML, CSS, JavaScript, Bootstrap.  **MS Office**: Microsoft Word, Excel, PowerPoint  **Internet of Things & Basic Electronics.** |

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| LANGUAGES | * **Hindi:** Full professional working proficiency. * **German:** Limited Working proficiency. * **English:** Full professional working proficiency. * **Gujarati:** Native or Bilingual Proficiency. |

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| **PROJECTS** |  |
| **Stair climbing robot (Curiosity Mars rover)**  **08/2020** | *Technical Lead*  In this project, we designed an acrylic chassis and wheelbase for a 6-wheel car which looks similar to Curiosity Mars Rover. The robot is based on a rocker-bogie mechanism which allows it to climb over obstacles. |
| **Self-Balancing Robot**  **08/2020** | *Technical Lead*  This is a heavy programming project, which requires integration of PID Control and the use of Kamlan filter for smoothing the transitions of sudden movements. Made with two motors, motor driver and Arduino Uno. |
| **Autonomous Pick and Place Robot**  **07/2020** | *Technical Lead*  We designed parts of a robotic arm in Solidworks. Manufacturing was done via laser cutting acrylic sheet. We performed the assembly of parts with Arduino nano, 4 Servos and Bluetooth module HC-05. I also wrote the code in Arduino IDE for autonomous pick and place of things. |
| **Naza-m lite drone with F450 frame and GPS**  **07/2020** | *CAD Designer*  Created a drone with Naza-m lite and F450 frame. Programmed and calibrated it with fly sky i60 remote. Performed calibration and calculations like thrust to weight ratio to achieve maximum stability. Configured Brushless DC Motor, Electronic Speed Controller and pmw. |
| **Obstacle avoiding path follower Robot (2WD & 4WD)**  **06/2020** | *Technical Lead*  We designed a robot chassis in SOLIDWORKS. Then we manufactured it by laser cutting it on an acrylic sheet. Then performed the assembly of DC gear motors, motor drivers, wheels, IR Sensors, Ultrasonic sensors and Arduino Uno. Then we executed the code in Arduino IDE. |
| **Design & Fabrication of Semi-Automatic Plastering Machine**  **09/2019 - 05/2020** | *Technical Lead*  In this project, we used a pneumatic cylinder as the drive-train to lift a plaster-head which applies the plaster onto the wall. Furthermore, we used an Arduino with a Bluetooth chip HC-05, to control the plastering process using a smart phone. |