Santosh Dasari

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EXPERIENCE

ATONOMIC | System Design Contractor
OCT 2023 – Dec 2023 | Remote

- Translated business requirements into technical specifications by developing product requirements and system design documentation for a remote-controlled factory vehicle
- Created job descriptions and recruitment guidelines to enable the non-technical founder to hire high value engineering staff

SILK ROAD MEDICAL | R&D Intern
May 2022 – Aug 2022 | Sunnyvale, CA

- Created detailed & repeatable cleaning process for laser-cut Nitinol implants, meeting assembly and sterilization particulate specification
- CAD designed and manufactured a fixture for securing implants during cleaning, with press-fit tolerances and mill/lathe DFM
- Reduced process time by 15% through running a process experiment and writing a particulate quantification standard
- Aligned efforts among vendors, suppliers, and contract manufacturers to ensure compatibility within final assembly line

CARL ZEISS MEDITEC | Mechanical Engineering Intern
May 2021 – Aug 2021 | Dublin, CA

- Performed two-stage FEA on an optometry device, identifying 25G cantilever failure and leading design and material changes that improved mechanical performance and increased FoS
- Analyzed failure patterns in returned optometry devices subjected to freight loads, identifying stress concentration zones and deflection in parts
- Designed and built a custom test fixture for bench-top load testing, achieving validation of FEA predictions and ensuring design reliability
- Supported dust ingress and shipping G-force testing to assess product reliability across diverse commercial environments

PROJECTS

IN-VITRO MECHANICAL HEART VALVE THROMBOGENICITY TESTER | Senior Project
Aug 2025 – Present | San Jose, CA

- Designed and manufactured an electromechanical ISO 10993 compliant testing rig to replicate human heart flow patterns in a closed loop system
- Programmed Python and C++ to develop a precise motor control algorithm and user interface for accurate flow patterns and ease of use
- Validated design with flow rate measurements against physiological data
- Coordinated stakeholder feedback to identify shortcomings in previous design, aiming to reduce setup time by 50% via DFA

SJSU ROBOTICS | President and Mechanical Subsystem Lead
March 2021 – May 2023 | San Jose, CA

- Directed cross-functional teams to develop a Mars rover robot, overseeing Mechanical, Controls, Electrical and Autonomy
- Designed and manufactured a field-deployable Raman spectroscopy system for real-time geological mineral detection
- Oversaw mechanical design reviews for clearance, electrical/controls compatibility, mechanical performance, and user needs
- Supported overall robot development by performing soldering, wiring, mechanical assembly, system testing, and validation

EDUCATION

SAN JOSE STATE UNIVERSITY
B.S. Biomedical Engineering
Expected May 2025 | San Jose, CA

SKILLS

DESIGN
SolidWorks | PDM/PLM | 2D Drawings | GD&T | Tolerance Stack-up

SIMULATION & ANALYSIS
SolidWorks FEA | COMSOL | Minitab | Excel

MANUFACTURING
Machine Shop (Lathe, Mill) | 3D Printing | Laser Cutting | Water Jet | Rapid Prototyping

ELECTRONICS & SOFTWARE
Soldering | Wiring | Arduino | ESP32 | LabVIEW | Python | MATLAB | C++

CERTIFICATIONS

Certified SolidWorks Associate (CSWA) - C-6K7JVCXN2D
GD&T Fundamentals Based on ASME Y14.5 - 2018

LINKS

Website:// **santoshblds.com**
LinkedIn:// **santosh-dasari**
Github:// **SantoshDasari-ai**