

# Mayukh Nandula

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Citizenship: US Citizen

## Summary

Mechanical Engineer with hands-on experience in mechanical design, system validation, and rapid prototyping across robotics, packaging, and aerospace domains. Proven ability to take concepts from requirements through CAD, analysis, prototyping, and manufacturing, with a strong focus on manufacturability and reliability. Adept at developing tools and workflows that improve engineering efficiency and decision-making.

## Skills

**CAD:** Inventor, SolidWorks, Solid Edge, Onshape,

**Analysis:** ANSYS Mechanical/Fluent, FreeCAD Simulation, xFLR5

**Fabrication:** Rapid Prototyping, CNC (2.5/3 Axis)

**Automation:** Power Apps, Excel-VBA, Report Automation

**Standards:** ISO 9001, 15378, 2768; GMP, GDP, EHS

## Experience

### Mechanical Design Engineering Consultant

*Harvested Robotics, Hyderabad*

Nov 2025 – Present

- Designed and tested 2 DoF Gimbal for flagship agri-tech product
- Optimized Area of Effect for mechanism improving coverage by 12 percent
- Validated requirements using hand calculations, confirming with prototype

### Industrial Design Engineer

*Product Armor Packaging Pvt. Ltd., Hyderabad*

Jul 2024 – Sep 2025

- Developed customer-facing drawings and oversaw CAD workflows across teams.
- Led end-to-end development of two new products including prototyping, mold coordination, FAT/SAT, and trials.
- Built Power Apps and Excel-VBA tools automating BOM, mold life, and utilization reporting.
- Centralized Product Master and authored standardized CAD/SOP systems reducing delays.
- Executed rapid prototyping using engineering-grade 3D printing for fit, function, and tooling.

### Mechanical Intern

*Harvested Robotics, Hyderabad*

Dec 2023 – Apr 2024

- Designed gimbal fixtures, mirror mounts, and CO<sub>2</sub> tube supports for the flagship agri-tech product.
- Improved alignment repeatability using robust, modular 3D-printable mechanisms.
- Earned co-inventor recognition in submitted intellectual property.

### Mechanical Design Intern

*Kritsnam Technologies, Hyderabad*

Jul 2023 – Aug 2023

- Designed an in-house sensor testing device with printed-in-place hinge mechanisms.
- Reduced testing time through improved alignment and simplified BOM architecture.

## Projects

### Robocon Robots (2022)

- Led CAD, fabrication, and testing of two competition robots under dynamic loading constraints.
- Designed pulley, lifting, omni-wheel, and shooting mechanisms; advanced to quarter-finals at national level.

### SAE Aero Design — Fixed Wing Aircraft

- Designed and fabricated a 2.0 m wingspan aircraft including wing structure and landing gear.
- Successfully flown at competition; ranked 22nd nationally among regular-class teams.

### SCRAMJET CFD Validation

- Recreated experimental SCRAMJET geometry and optimized mesh for supersonic CFD analysis.
- Validated shock structures and pressure spikes in ANSYS Fluent against published experimental data.

## Education

### Mahindra University — B.Tech. Mechanical Engineering

2020 – 2024

Relevant Coursework: CAD, Machine Design, Manufacturing, Fluid Mechanics, Heat Transfer, Material Science