Deepanshu Singh

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Summary

Mechanical Engineering student with hands-on experience in CAD modeling, design optimization, and manufacturing process improvements. Skilled in SolidWorks, AutoCAD and quality control tools to enhance operational efficiency. Seeking an opportunity to apply technical expertise and contribute to industry-focused engineering advancements.

Education

Shri Guru Gobind Singhji Institute of Engineering and Technology — **Nanded**
B.Tech in Mechanical Engineering — *2022–2026*

L.R. Tiwari Junior College — **Mumbai**
Higher Secondary Certificate — *2022*

Experience

Chhaya Strategic Advisors — **Pune**
Intern — *07/2023 – 08/2023*
- Conducted root-cause analysis on agricultural losses for 15+ farmers, identifying key issues impacting crops.
- Proposed a research paper on ultrasonic deterrent system projected to reduce crop damage by up to 40%.

Corizo — **Remote**
Mechanical Engineering Intern — *10/2023 – 11/2023*
- Designed and optimized 10+ mechanical components using AutoCAD and SolidWorks.
- Refined manufacturability by applying DFM principles, ensuring practical and cost-effective production.

Trinano — **Mumbai**
Mechanical Engineering Intern — *06/2024 – 07/2024*
- Prototyped a uniform solar panel coating mechanism to ensure consistent coating.
- Optimized design resulting in 10% mass reduction and boosted efficiency.

Skills

Technical: AutoCAD, SolidWorks, R&D, MS Excel, Operations Research

Quality Tools: FMEA, QC Tools, Inspection, Quality Assurance, Root Cause Analysis

Lean & Productivity: Lean Manufacturing, 6 Sigma, Kanban, 5S, Kaizen, Method Study

Soft Skills: Communication, Teamwork, Problem Solving, Analytical Thinking, Adaptability, Leadership

Projects

Multi-size Self-Centering Drill Bit:
- Designed modular drill bit with interchangeable tips using SolidWorks, for varied diameter holes.
- Reduced production cost by 50% through optimized geometry and DFM strategies, ensuring better machinability.

4 Axis Robotic Arm:
- Developed a servo-controlled robotic arm emphasizing kinematic accuracy and ergonomic assembly.
- Achieved higher payload efficiency by integrating lightweight materials and applying DFA for superior structural.

Piezoelectric Energy Harvester:
- Designed a compact system to capture vibrational energy using piezoelectric transducers to convert it into DC power.
- Validated performance delivering up to 20 mW output, demonstrating potential for low-power autonomous sensors.

Research Paper Publication

Integrating Ultrasonic Sound Technology for Wild Boar Deterrence in Agriculture: A Research Analysis