

Adupuru Vishnu Vardhan

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[Portfolio & Certificates](#)

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Professional Summary

Mechanical Design Engineer with experience in aerospace and defense-related R&D projects. Proficient in CAD modeling, reverse engineering, and drone system integration. Developed real-world prototypes used in competitions and field testing. Skilled in SolidWorks, NX CAD, Ansys, and technical documentation. Collaborative team player seeking roles in innovative design and research environments.

Work Experience

Mechanical Design Engineer

Arka Aerospace – Hyderabad | Mar 2024 – Nov 2024

- Designed and optimized aerospace components using SolidWorks, reducing production costs by 15%.
- Design-to-production efforts for drone-based defense systems.
- Collaborated with suppliers and internal teams to streamline sourcing and production.
- Developed quality documentation and ensured mechanical standards compliance.

Mechanical Design Engineer

Hyperpixel Robotics – Tirupati | Dec 2023 – Mar 2024

- Reverse engineered drone components and created CAD models.
- Assembled mechanical and electronic subsystems for UAV systems.
- Trained over 5 junior engineers in drone piloting and system integration.
- Created technical drawings and documents for field test and demonstration.

Education

B.E. Mechanical Engineering

SV College of Engineering, Tirupati — 2023 | 71.8%

Class XII

Sri Chaitanya Junior College, Tirupati — 2019 | 66.7%

Class X

Bhashyam High School, Tirupati — 2017 | 82%

Projects

Weaponobot

- Designed and manufactured a surveillance-enabled UGV with onboard weapon systems.
- Tested in field environments for defence applications.

Smart Crop Management System

- Designed a drone system to deter wildlife and monitor crops.
- Used in tech fairs for innovation demonstration.

H-Bot (VTOL Aircraft)

- Developed CAD models and 3D-printed components for vertical take-off aircraft.
- Presented in innovation competitions and used for flight testing.

Bomb Dropping System

- Contributed to design and mechanical configuration of a drone-based payload delivery system.
- Aimed at improving precision and safety in defence operations.

Skills

CAD & Simulation Tools:

SolidWorks, NX CAD, CATIA V5, AutoCAD, Ansys Workbench

Mechanical Design & Prototyping:

DFM/DFA, Reverse Engineering, 3D Printing, Quality Control

UAV & Robotics:

Drone Assembly, UAV/UAGV Design, VTOL, Aeromodelling

Other Competencies:

Technical Documentation, Team Collaboration, Project Execution

Languages:

Telugu, English, Hindi, Tamil

Certifications

- Certified SolidWorks Associate – Dec 2023
- Winner – Design & Innovation Clinic, CMTI Bengaluru – June 2022
- Consolation Prize – AVISHKAAR Innovation Competition – Mar 2022

- Consolation Prize – Anveshana Science & Engineering Fair – Feb 2022
 - Participant – Makeathon 2.0 – Oct 2021
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Hobbies

- Radio-Controlled Aircraft Building
- Aeromodelling