

M.Antodas

832/2, Mettu street, Thomas Nagar, Illupaiyurani Kovilpatti
Thoothukudi (Dt) - 628502
9344095905 | antodas99@gmail.com

Professional Summary

Mechanical Design Engineer with 3+ years of experience in product design, automotive interior trim, and quality control. Proficient in CATIA V5, Creo, with strong expertise in surface and solid modeling, sheet metal, and GD&T. Skilled in delivering precise, functional, and industry-compliant designs while collaborating with cross-functional teams to support innovation and manufacturing excellence.

Experience

- SOLVEDGE- Chennai** 01/07/2024 - 25/08/2025
Product Design Engineer
Product Designing & Modification
 - Designed and developed advanced equipment and components using CATIA V5, applying standardized trim design rules to ensure precision and consistency.
 - Created high-quality Class A surfaces for external product geometry, further building Class B surfaces from detailed dimensional data, and finalizing designs with Class C surfaces to achieve seamless continuity.
 - Engineered supportive medical products that enhance mobility and structural alignment, ensuring optimal functionality across different movement and usage conditions.
 - Led the design and development activities at the engineering facility, with subsequent manufacturing executed at the client's production center in California, ensuring smooth transition from design to production.
- Automic Engineering Services** 01/06/2022 - 08/06/2024
Junior Design Engineer
3D Modeling, 2D Drafting & Design Modification
 - Designed and modeled automotive interior trim components using CATIA V5.
 - Created 3D models, 2D drawings, GD&T, and BOMs as per customer specifications.
 - Validated Class A surfaces and developed Class B & C surfaces and master sections.
 - Implemented engineering features such as ribs, snaps, doghouses, and bosses.
 - Collaborated with machinists for tool setup and quality compliance.
 - Conducted PFMEA/DFMEA reviews and prepared related documentation..
- JBM Autoparts** 23.02.2022 - 31.05.2022
Quality and Production Control
 - Monitored production tools, wellheads, compressors, dehydrators, separators, and meters.
 - Successfully worked as part of a team in the assembly of various window and door products and sub-assembly areas.
 - Developed excellent working knowledge of industry trends and improvements in processes.

Software & Skills

- AutoCAD- Drafting
- Catia V5 - Part modelling, Assembly, Boolean, Remastering, Drafting, GD&T, Sheet metal, Surface modelling, TRIMS
- Creo Parametric- Part modelling, Assembly, Drafting, GD&T
- Research and Development
- PFMEA / DFMEA
- 3d Printing
- Quality Control
- Installation Engineer

Projects

- Development of a Door trim panel using CATIA V5**
 - Executed clash analysis to validate proper fitment of the new Components with surrounding body components, ensuring zero interference and seamless integration.

- Performed draft analysis and optimized tooling directions by incorporating lifter and slider mechanisms for undercut regions, thereby ensuring efficient manufacturability.
- Translated Class-A surfaces into Class-B, maintaining uniform wall thickness to improve structural integrity, durability, and compliance with design standards.
- Proposed and documented an assembly methodology for integrating the new plastic part with adjacent components, emphasizing ease of installation, maintenance, and serviceability.
- Designed and implemented the mounting features including doghouse screw bosses and clip towers, enabling secure attachment and long-term performance.
- **FREELANCE: Custom Product Design & Development**
 - Developed configurable design models in CATIA V5, enabling quick customization based on customer specifications and desired functionality.
 - Ensured parametric modeling approach, allowing design scalability and efficient modifications without compromising product quality.
 - Generated detailed 2D drawings and technical documentation for production teams, supporting smooth handover to manufacturing.

Achievements & Awards

- Certified in 3D printer (rapid prototyping) with scanner (2019)
- 3rd place in poster designing competition at Albatross Literacy fest (2020)
- Certified in Automotive Plastic Design using CATIA V5 at Skill Lync (2023)
- Attended more than one conference meeting as a part of the presentation team and provided an explanation of our recent and future products (2024)

Education

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| <ul style="list-style-type: none"> • John Bosco Matric. Hr. Sec. School - Kovilpatti
Higher Education / SSLC
Percentage - 74.2% | 2016 |
| <ul style="list-style-type: none"> • SRNM Polytechnic college - Sattur
Diploma in Mechanical Engineering
Percentage - 78% / First class | 2019 |
| <ul style="list-style-type: none"> • Sethu Institute of technology - Kariapatti
B.E Mechanical Engineering
Percentage - 88.7% / First class with Distinction | 2022 |

Languages

- Tamil - Read and Speak
- English - Read, Write and Speak
- Hindi - Read, Write and Speak