

CURRICULUM-VITAE

MADHAN KUMAR S

S/O SIVAPUNNIYAM S,
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OBJECTIVE:

To Co-ordinate a team and to devote all my abilities for the growth of the organization and emerge into a best, notable name in the field and develop into a model for the contemporary generation.

CORE COMPETENCIES:

- **4 Years of Experience** mainly in **Design and GD&T application in Fixtures and Gauges.**
- Basic Knowledge in **Tolerance Stack-up Analysis (1D).**
- Hands on Experience in **GD&T Drawing Creation and Quality Check.**
- Hands on Experience in **Fixture & Gauge Design and Validation in Gauge R&R.**
- Proficient Knowledge of **GD&T.**

WORK EXPERIENCE:

-Working as a **Design engineer** in **Design and development** with **INNO FIXTURE & GAUGE**, Chennai.
Since **AUGUST 2018 to till.** (3.5 year experience)

-Working as a **GET** in **Design and development** with **INNO FIXTURE & GAUGE**, Chennai.
Since **AUGUST 2017 to AUGUST 2018.** (1 year experience)

Designation: **Design Engineer in Design and Development.**

PROFESSIONAL EXPERIENCE SUMMARY:

Over 4+ years of professional experience in the field of **Design & Development** which includes, **Assembly fixtures, CMM fixtures, checking fixture, Machining fixtures, Gauges, Welding fixtures, BIW fixtures, SPM machines** for Automotive, Aerospace, Commercial, heavy engineering industries Projects. **2D Drafting (GD&T) & 3D Modeling, New Product Development, Sample validation & get approval** from Customer.

Allotting GD&T and its symbols for all gauges, fixtures for controlling the **in process manufacturing and assembly.**

And fixing the **CMM control points** for controlling the **profile of surface** for all Plastic part fixtures and sheet metal fixture.

Expertise of **CAD/CAM/CAE**

TOOL AREA: 3D solid, surfacing, Assy and sheet metal design, 2D drafting & analysis.

- Complete understanding of customer requirement before start off any project setting the deliverable accordingly.
 - Design of fixtures for plastic injection mold, metal stamped parts, small mechanical assemblies (Automotive parts) for design fit, GD&T Tol. Stacks, **ASME Y14.5** Drafting Std.
 - Design and development of fixture (sheet metal, plastic trims, etc. knowledge in press tools and injection molds.
 - Preparing the flow chart (Deciding the process) for various components.
 - Handling modelling & drafting with best practices using GD&T and performing DFM, DFA and DFS
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- Managing design engineering order release for development of aggregate level and system level Design follow up and checking the assembly drawing and Detail drawing.
- Co-ordinate with manufacturing team to sort out difficulties during manufacturing process.
- Planning to meet customer's fully system layout, specifications and Engineering solution and documenting the discussed points.
- Suggesting the select right process, Communication with inter department to organize the start to end for the projects.

PROJECTS UNDERTAKEN

At INNO FIXTURE & GAUGE

Client: RANE TRW STEERING SYSTEMS

- Handled concept designing of AIR BAG checking gauge
- Developed checking fixture for Driver Air bag, Side Air bag, Curtain Air bag, Rear Side Air bag, Front Side Air bag.
- Submitting complete design, manufacturing and quality report documentation to the client.

Client: Metal Forms Private Limited

- Design and development of various BIW Sheet Metal Part Checking Gauges and Welding Fixtures for **Ashok Leyland's and Daimler's** projects.
- Creating technical drawings (2D drafting) and applying GD&T for controlling in-process manufacturing and assembly
- Following up the projects while in Manufacturing assembly and quality checking.
- Creating CMM data and validating it with the design.

Client: ATHER ENERGY

- Design and development of Zero Station(**Vehicle Assembly Fixture**)
- Concept design for various assembly fixtures for **Rear Frame, Mid Frame sub Assembly** for Electric Vehicle's (**2 wheeler EV**) assembly line.
- Concept design for battery pallet for their battery manufacturing plant.
- Creating technical drawings with proper GD&T.
- Creating CMM Datasheet.
- Submitting the complete design, manufacturing and quality report documentation to the client.

Client: OLA ELECTRIC

- Design and development of Testing Fixtures of Electric bike components.
- Design and development of Light Burning Automation Fixture.
- Concept design of CMM Holding Fixture for Rims, Structural Arm and Display.

Client: SINTEXBAPL

- Design and Development of Profile Checking Gauges Air Vent Duct hoses (rubber parts) of Hyundai Components.
- Concept design for Air Vent to check the profiles at exact car position.

Client: MOULDYMER SYSTEMS LLP.

- Handled concept designing of Air Duct(vehicle) Inlet and Outlet position checking after moulding.
 - Pallet for moulded parts-Pick up pallet, Transfer pallet and Cutting pallet with complete Robot mounting.
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SPM:

- Design and Development of **Vehicle Assembly Automation Fixture** for Electric Bike(EV) for Ather Energy.
- Design and Development of **Decoiler machine** for sheet metal Rolling for Tanktech Asia Pvt Ltd.
- Design and Development of **Fabrication bending machine** for sheet metal for ML fabrication industry.

TECHNICAL KNOWLEDGE

- A complete study of drawing and apply GD&T.
- Identifying the locating Datum's and clamping points.
- Having knowledge in DFMEA.
- Having Knowledge in GD&T and LIMITS and FITS and TOLERANCE.
- Having knowledge in Material selection and Heat treatment process.
- Having knowledge in Machining process and its feasibilities.
- Verbal, written, leadership and interpersonal communication skill.

SOFTWARE PROFICIENCY

- Well versed with **CATIA V5**.
- MS-Office.
- Basic Knowledge in NX, Teamcentre.

EDUCATIONAL QUALIFICATIONS:

- Under Graduation B.E in Mechanical Engineering (2013-2017) -71%
Institute: Dhanalakshmi srinivasan college of Engineering, Chennai.
- HSS in Computer Science (2011-2013) – 81.5%
Institute: Sri Venkateshwara Vidhyalaya Hr. Sec School(HSS -ENGLISH).Erode(TAMIL NADU)
- S.S.L.C in mathematics, science, social science 2011– 85.8%
Institute: Sri Bharathidasan Matric Hr. Sec School(HSS -ENGLISH).Mannargudi(TAMIL NADU)

Personal Details:

Father Name	:	Mr. SIVAPUNNIYAM
Date of Birth	:	15-11-1995
Languages Known	:	English,Tamil
Gender	:	Male
Nationality	:	Indian
Marital Status	:	Single

I do hereby confirm that all the details furnished above are true to the best of my knowledge and belief.

Thanking You,

Date : yours sincerely,

Place : MADHAN KUMAR S
