

BHUPESH GUJRATHI

Lead Mechanical Design Engineer | Product Development & VAVE

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PROFESSIONAL SUMMARY

Results-driven engineering professional **with 11+ years of experience** leading new product development and introduction (**NPD/NPI**), **industrialization support**, and **value engineering** for consumer products and complex electromechanical modules. Combines hands-on technical depth with proven program leadership: driving APQP-based new product development, production process development, and VAVE cost-reduction initiatives. Experienced in partnering with global engineering, costing, quality, manufacturing, tooling, and supplier teams across India, USA & China to deliver scalable, quality and on-time engineering solutions.

CORE COMPETENCIES

Technical Skills: Mechanical Layout Development, Component Integration, Complex Assembly Design, Engineering Drawings & GD&T, Tolerance Stack-up Analysis, DFx (DFM/DFA/DFT), FMEA, Design Verification & Validation, DOE & SPC (working knowledge), Six Sigma Fundamentals, Rapid Prototyping (SLA & FDM), BOM Management (Windchill-PLM), 3D CAD Modelling, Root Cause Analysis, Cost Optimization (VAVE), Engineering Change Management (ECN), RFQ Management, Plastics & Sheetmetal, Injection Molding, Plastic Surfacing

Leadership & Management: Project/Program Management, Cross-Regional Collaboration, Matrix Organization Leadership, Conflict Resolution, Risk Mitigation

Software Proficiency: Creo Parametric, CATIA, PreForm, Ultimaker Cura, Adobe Illustrator, MS Office

WORK EXPERIENCE

Sr. Project Engineer

Apr 2020 – Present

Hasbro India, Pune

- Lead global **New Product Development (NPD) and Value Analysis/Value Engineering (VAVE) programs** for complex electromechanical NERF products, balancing technical performance, manufacturability, quality, cost, and project timelines across multiple concurrent engineering initiatives.
- Translate **Voice of Customer (VoC) and business requirements into engineering specifications**, concept feasibility studies, manufacturable product architectures, and **robust technical solutions using APQP**.
- Provide technical leadership across cross-functional teams spanning design, costing, tooling, manufacturing & quality in India, USA & China to ensure alignment on project milestones, engineering deliverables, and risk mitigation.
- Drive **engineering governance** by planning, tracking, and coordinating RFQs, project deliverables, milestones, design reviews, risk registers, ECNs, validation activities, and engineering change implementation to achieve schedule, quality, and cost objectives.
- Lead **Design-to-Value (DTV) and Value Engineering workshops** using SCAMPER, TRIZ, Brainwriting, Morphological Matrix, FAST methodology, teardown analysis, and competitive benchmarking.
- Lead **DVP&R activities with tooling manufacturers, contract manufacturers (CMs) & suppliers** throughout pre-production, **engineering validation, and pilot builds** to resolve tooling, manufacturability, quality, and production challenges — improving schedule adherence, production ramp-up, and smooth implementation of engineering changes.
- Coordinate **problem solving engineering activities** with international suppliers and manufacturing partners, facilitating **Root Cause Analysis (8D, 5-Why, Fishbone, FTA) and failure analysis**, corrective actions, and continuous product quality improvements.
- Manage **Engineering Change (ECO-ECR-ECN) using Windchill PLM**, ensuring configuration control, design traceability, BOM integrity, compliance documentation, and adherence to global engineering governance processes.
- Support **engineering decision-making by evaluating technical trade-offs** involving cost, quality, manufacturability, reliability, supplier capability, and project schedule, driving timely resolution of engineering risks.
- Lead **concept prototyping and design validation using in house SLA, FDM model shop, and Vacuum Casting technologies**, coordinating verification and certification activities with internal teams and accredited laboratories.
- Apply **Statistical Process Control (SPC) fundamentals** to support test planning, process capability studies, and data-driven design validation decisions.
- Present **engineering recommendations, project status, cost optimization proposals, technical risks, and validation outcomes** to top management, global stakeholders, supporting informed business decisions throughout the product lifecycle.
- Promote **continuous improvement by standardizing engineering practices, sharing lessons learned** across global teams, and implementing robust methodologies that enhance quality, development efficiency, and organizational knowledge.

Global Project Engineer

Aug 2016 – Apr 2020

Whirlpool of India – GTEC, Pune

- Lead FDBM **refrigerator structural product development programs from concept through production**, developing mechanical layouts, mounting features, and interfaces for plastics & sheet metal components while supporting design validation and manufacturing readiness through WPD stage gates.
- Execute **reverse engineering and lateral benchmarking activities** to identify product improvement and cost-reduction opportunities.
- Drive **product cost optimization through Design-to-Value (DTV) workshops** and development of robust engineering alternatives.
- Develop robust CAD models, **engineering drawings, BOMs, and assembly documentation** while supporting design optimization, tolerance analysis, and product integration.
- Conducted **DFM, DFA, DFMEA, tolerance stack-up analysis, and design reviews** to improve manufacturability, quality, reliability, and cost.
- Collaborate with **cross-functional teams and CAE engineers to perform static and dynamic simulations**, supporting prototypes, design validation, and performance optimization.
- Drive **engineering change management (ECN) activities using Windchill** and ensured timely implementation of design updates and product improvements.

Design Engineer – CAD

Feb 2015 – Aug 2016

Symmetric Technology, Pune

- Generated CAD models using Creo Parametric and CATIA.
- Created engineering drawings and performed technical reviews with customers.
- Executed reverse engineering projects with high accuracy and efficiency.

ACHIEVEMENTS

- Received the **STAR Award (2025)** for driving product modularity across NERF blasters using a **Cost-to-Feature (CTF)** approach, **delivering ~\$60K in annual cost savings** while maintaining consumer value and product functionality.
- Earned the **Achiever Award (2024 & 2025)** for leading multiple **VAVE initiatives that generated ~\$160K in annual cost savings** through design optimization, cost reduction, and alternative engineering solutions.
- Recognized with the **Change Maker Award (2025)** for exceptional contributions under the "Be Legendary" leadership principle, driving impactful innovation and business improvements across projects.
- Awarded the **Well-Played Award (2024)** for exemplifying the "Break the Mold" leadership principle through creative problem-solving, cross-functional collaboration, and successful execution of challenging engineering initiatives.

EDUCATIONAL BACKGROUND

MBA – Operations Management

D Y Patil University | Expected July 2027

BE – Mechanical Engineering

Kolhapur, Maharashtra | 2014 | First Class (67%)

HSC

Ratnagiri, Maharashtra | 2010 | First Class (72%)

CERTIFICATIONS

MS Project | Kaizen in Product Development | Applying Design for Six Sigma | Conflict Resolution | Creo Parametric | CATIA

LANGUAGES

English, Hindi, Marathi