PRASANT SOY

Hardware Design Engineer

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SUMMARY

Design Engineer with over 3 years of experience in designing and hardware product development. Skilled in circuit designing, testing in power electronics and analog/digital circuits, and system integration. Strong background in cross-functional collaboration with various teams to deliver high-quality products, with proficient in the latest hardware design tools and methodologies. Seeking to contribute to innovative projects and drive technical excellence in a dynamic organization.

SKILLS

- Schematic and circuit Design
- Hardware testing and Validation
- System Integration
- Schematic Capture
- Product Development

- Altium
- AutoCAD Electrical
- Wire Harness Design
- PCB Layout
- BoM Management

EXPERIENCE

L&T Technology Services, Vadodara Engineer

Nov 2021 - Till Date

- Analyzed and executed the design and modification of the systems, including the block diagrams, schematics diagrams and cable harness for accessibility and compliance capturing all the client specifications requirements.
- Developed PCB circuit schematics for microcontroller units (MCU), LDO's, buck converters, boost converters and motor driver circuits with precise load calculations.
- Worked on various communication interface designs comprising of SPI, I2C, UART facilitating seamless connectivity and data exchange in systems and various sensors.
- Designed PCB layout using schematic to ensure accurate component placements and routing.
- Skilled in performing power budget analysis, enabling efficient power management and optimizing hardware design to meet power requirements.
- Conducted testing to validate design to ensure performance benchmarks. Proficient with lab equipment including Oscilloscope, signal generators, Power Supplies, DMM, soldering stations, load banks, etc.
- Extensive experience in meticulously selecting electronics components based on functionality and cost-effectiveness, contributing to efficient and optimized design.
- Performed cost analysis of PCBA to estimate and evaluate the cost structure based on component sourcing and different manufacturers.
- Performed system integration across various subsystems, overseeing assembly, cable harness

- routing, troubleshooting and validation testing to ensure optimal system performance.
- Fabricated wire assemblies and connectors for electrical systems, ensuring proper integration, reliability, and performance.
- Collaborated closely with cross-functional teams to maintain excellent product quality standards and ensure alignment with project timelines and objectives.
- Delivered weekly project reports to clients, progress tracking, and milestones completion status.
- Produced thorough technical documentation, including specifications, BoM, manuals, and test reports, to facilitate smooth project implementation and long-term maintenance.
- Collaborated with customers, technical teams, suppliers, and other stakeholders to support decision-making and ensure high-quality product outcomes.

PROJECTS

Gauge Calibration System

To designing and developing an automated system to perform the calibration of the ERD gauges under high pressure till 25000psi and temperature till 350°C reducing the process of calibrating by time by 30%.

Gas Switch-over System

Designing the system for a fully automatic, electronically controlled gas switchover system that can provide continuous supply of gas from a variety of sources including high pressure cylinders, liquid cylinders or bulk gas containers.

Proppant Storage and Discharge System

Designing a fully automatic system to transfer the proppant from truck trailers to a storage unit with a capacity of 2.5 Tons to store and fill the portable containers automatically and dispatched to various locations.

ACADEMIC QUALIFICATION

Qualification	College/University	Year of Pass out	Percentage
B. Tech	Karunya Institute of Technology and Sciences, Coimbatore	2021	8.19 CGPA
HSC	K.V. No.2, Kharagpur	2017	79.20%
SSC	Sacred Heart School, Kharagpur	2015	81.66%