

**Summary:**

The Product Design Engineer is responsible for creating new innovative designs and improving existing items and systems. You will apply established engineering and manufacturing principles to the design and development of new products, the modification of existing products, manufacturing equipment, measuring equipment, and supporting processes. Applying principles such as DFMA and CTQ, you will produce creative design ideas to create best in class solutions. As a key member of the Phantom team, you will provide leadership in the achievement of departmental goals, consistently demonstrate, and encourage in others the organization's core corporate values, and champion Phantom's overall strategic vision.

**Department Structure:**

The Product Design Engineer reports to the Product Engineering Manager.

There are no subordinates reporting to the position of Product Design Engineer.

**Our Values:**

At Phantom Screens we value all of our employees. We are committed to providing a safe, harmonious, and respectful work environment and all employees are required to help us achieve this by practicing our core values.

- To Speak the Truth
- To Pursue Excellence
- To Serve Each Other
- To Practice Stewardship

**Position Responsibilities:**

(include but are not limited to, the following)

- Define functional design requirements, collaborate on DFMA requirements, generate design concepts, and recommend product design approaches necessary to meet requirements for new and improved products.
- Develop and execute testing and validation plans for existing and new products, defining product limitations.
- Ensure accurate Bills of Materials and detailed internal technical documentation in support of cost analysis and reliability analysis.
- Perform engineering analyses on effective use of materials on all products to ensure overall costs are minimized without compromising quality and performance.
- Ensure all product designs meet test specifications as appropriate to minimize product liability exposure and ensure adequate performance to the customer (includes existing products, non-standard requests, product changes and new products).
- Recommend changes in design or manufacturing of products as required ensuring compliance with safety, quality, costs, or the intended functional requirements.
- Establish, revise, and communicate (internally and to vendors) the quality standard expectations and tolerances of all products and components (existing and new).
- Support the manufacturing function by way of drawings, jigs and fixtures, test methods and measurement tools and tolerances based on functional criteria.
- Other tasks as assigned by the Product Engineering Manager.

**Documentation:**

- Review vendor drawings to ensure initial quality assurance and appropriate specifications and tolerances are defined; provide support in developing a measurement methodology to ensure compliance.
- Create, provide, and maintain all engineering documentation in PDM system, to support a design effort including calculations, test plans, reports, drawings, customer and vendor data qualifications, Bill of Material specifications, cost estimates, and schedules.
- Create new and maintain existing drawings in the CAD data base and develop/maintain accurate and detailed technical support documentation.
- Support product documentation required for user manuals and instructions, such as drawings, technical write-ups, and graphics.
- Communicate results in writing, with recommendations, to Product Engineering Manager.
- Fabrication (and management of the outsourcing of the fabrication) of prototype parts or modifications of existing products to specifications and product design requirements.
- Maintain and manage latest versions of design documentation.

**Position Requirements:**

- Superior computer skills using Microsoft Office and SolidWorks programs.
- Strong understanding and application of manufacturing processes, quality control processes, methods, and techniques.
- A results-oriented individual with a proven ability to apply evaluation and analysis skills to identify and resolve issues.
- Ability to work efficiently with a minimum of supervision, using good judgement in ambiguous situations along with the ability to maintain composure and professionalism always.
- High level attention to detail and accuracy to appropriately complete all tasks.
- Superior interpersonal and communication skills; interacting comfortably and confidently in writing or orally with internal and external contacts at all levels.
- Organized and methodical and able to simultaneously accomplish multiple and changing priorities by structuring workflow within in a time-sensitive environment.
- Keen understanding of team goals and achievements and willingness to work in, and be supportive of, a team environment.
- Respect the need to maintain confidentiality when encountering sensitive information.
- Ability to travel throughout Phantom's market areas if and as required.

**Position Location:**

On-site, with occasional limited work-from-home after probation.

**Academic Qualifications and Work Experience:**

A degree or diploma in an engineering or associated discipline along with a minimum of five years related work experience in product engineering and manufacturing technologies, including designing and testing products. Experience in project management and economic analysis is an advantage. An equivalent combination of education and experience may be considered.