

Job Title: Mechanical Design Engineer

Location: Charlotte, NC

Position Summary

We are seeking a bright and motivated individual to work in our Charlotte, NC innovation office as a Mechanical Design Engineer. This individual will be responsible for leading design efforts of UV-LED based disinfection products.

Job Description

The Mechanical Design Engineer will be a part of the Engineering Development Team; interacting with a multi-disciplinary group to develop innovative new product designs. This role will work closely with electrical and optical engineering personnel to achieve optimized design of complete systems (packaging, thermal, optical, ease of assembly, cost, and user experience)

Major Duties and Responsibilities

- Under minimal supervision, designs complex mechanical systems and equipment
- Conducts feasibility studies and testing on new and modified designs
- Directs support personnel in the preparation of detailed design, design testing and prototype fabrication
- Expected to use CAD and CAE tools to create designs and appropriate documentation to allow for prototyping and production of parts and assemblies
- Assumes a lead role in the engineering design, maintenance support and training for new products and existing products
- Analyze new and existing designs to optimize design efficiency, safety, quality and cost effectiveness
- Capability to draw conclusions and reconcile differences between predicted and actual results

- Plans and coordinates a variety of complex engineering solutions including documentation, reporting, publishing, and making technical or other presentations to ensure visibility of the solution(s) in an evolving environment
- Supports manufacturing in the development of processes and procedures to manufacture the products in accordance with design requirements and intended use
- Analyze non-conformances and work on resolutions to manufacturing issues including root cause analysis and problem resolution
- Determines technical objectives and develops innovative, practical solutions to advance technical engineering problems

The ideal candidate will have

- Hands-on experience taking products from concept through to commercialization and demonstrate a history of creative problem solving
- Sound knowledge of engineering principles, and manufacturing processes
- Excellent, creative problem-solving skills
- Ability to efficiently document mechanical parts, assemblies, and BOM creation
- Knowledge of plastic component design for a variety of manufacturing methods (machining, vacuum casting, injection molding, printing)
- Knowledge of metal component design for a variety of manufacturing methods (machining, stamping, casting, forging, printing)
- Knowledge of plastic and metal welding methods
- Strong DFM skills, knowledge of materials & processes
- Interest in new technologies and state-of-the-art materials
- Proficiency in Solidworks CAD
- Proficiency in Solidworks FEA and CFD tools
- BSME or equivalent and minimum 5 years' experience



AquiSense Technologies is the global leader in UV-C LED systems design and manufacture. We work with leading LED manufacturers to evaluate their devices and then design efficient disinfection products. Using a combination of patented technology and in-depth know-how, AquiSense integrates LED devices into products that solve real world problems in water, air, and surface applications. Visit us at:

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