

Job Description

Mechanical Engineer with Refrigeration System Experience

Primaira, LLC, is a fast-paced, product development company providing services to clients in the consumer, appliance, robotics and medical industries. We are looking for creative, energetic, technically skilled engineers to join our team. Our clients rely on and appreciate our industry knowledge, innovative thinking, hard work and clear communications to make their products a success in the market.

Our clients range from global product companies to local start-ups. Our work is varied and fast paced. This engineer will support hardware development involving electro-mechanical design, prototyping, laboratory testing, analysis, and manufacturing implementation. We are looking for experienced engineers who can work independently and who can clearly communicate with managers, co-workers, and clients.

Position Overview

We are looking for a mechanical engineer with experience in refrigeration to support our appliance development work. General responsibilities include, but are not limited to:

- Conceptualize and develop new products, parts, mechanisms, and assemblies.
- Work collaboratively in a multidisciplinary development team, including mechanical, electrical, materials engineers; designers and technicians
- Utilize SolidWorks effectively to produce a range of meaningful deliverables, including conceptual designs, 3D models, manufacturing tolerance analyses, and 2D production-level documentation of components and assemblies.
- Assemble prototypes, generate test plans, conduct tests, and create reports and other documentation tailored to project/client needs.
- Execute or contribute to standard engineering processes including: Finite Element Analysis, Failure Modes and Effects Analysis, Design For Manufacturing and Assembly, Heat Transfer and Fluids Analysis, and Cost Analysis

Specific refrigeration system design responsibilities include:

- Optimize refrigeration system design including condenser configuration, evaporator configuration, selection and configuration of compressors, capillary tube specification etc.
- Test refrigeration systems to define appropriate refrigerant charge, meet energy requirements, meet performance requirements

- Think creatively to integrate refrigeration system into residential and commercial appliances
- Model heat losses and refrigeration systems
- Apply relevant UL safety standards and DOE energy standards to refrigeration development
- Familiarity with hydrocarbon refrigerants such as R600a or R290 is preferred.

Qualifications

- B.S./M.S. in Mechanical Engineering;
- Minimum 5 years of design engineering experience in refrigeration systems and consumer products, demonstrating technical and manufacturable solutions;
- Experience testing and analyzing test results of refrigeration systems;
- Broad knowledge of thermodynamics and physics; some facility with chemistry;
- Strong knowledge of and facility manipulating heat and mass transfer equations;
- Comfort with mechanical and electrical system design, operation, and trouble shooting;
- Familiar with psychrometric calculations, dehumidification concerns, and ASHRAE/DOE procedures and standards;
- Ability to generate robust 3D databases, mechanical drawings, prototypes, and written reports. 3D CAD experience a must. SolidWorks proficiency required;
- Working knowledge of the Product Development Process is preferred.
- High level of personal commitment to quality, with demonstrated thoroughness and attention to detail in all phases of a project;
- Excellent communication and interpersonal skills, highlighted by a flexible and collaborative working style;
- Understanding and appreciation for industrial design, interaction design, and user research preferred.

Additional Requirements:

Previous experience in a research or product development environment is a plus. Candidate must be self-motivated and able to work independently. We are looking for a person with intellectual curiosity, high energy, and a can-do attitude. The candidate must be comfortable and experienced with lab work and hardware development. **US Citizens or Green Card holders only at this time.**



Salary/Benefits

Primaira LLC is located in Woburn MA. Primaira offers a competitive salary and excellent benefits, including health insurance and a 401K plan. Salary will be commensurate with experience and skills.

Job Type: Full-time