

Mechanical Research and Development Engineer

Job Summary:

The Position: Mechanical Research and Development Engineer will support the R and D department in designing, concepting, and realization of automation equipment and processes to support KES product development on current and future systems.

Key Responsibilities:

Use CAD/Autodesk Inventor software to design equipment system solutions.

Use analytical skills to develop reliable automation solutions and prove machine performance in a test lab environment.

Perform efficiency and reliability studies on existing machine product lines.

Excellent communication, collaboration, and teaming skills with internal teams, external partners, and direct customer interaction required.

Technical Skills

- Investigate customer and market requirements, for new mechanical products or applications.
- Develop models to simulate mechanical systems and components.
- Use CAD/Auto Desk Inventor software for mechanical prototype, device, and equipment design.
- Perform engineering calculations manually or with computer tools to analyze designs.
- Develop detailed drawing packages, schematics, and specifications for prototypes.
- Generate bill of materials.
- Design and coordinate prototype machining and fabrication in workshop facilities.
- Initiate test apparatus and perform tests on mechanical prototypes and systems.
- Review test data, compare predictions, and identify areas for design changes.
- Document experimental methods, tests, results, and conclusions in reports.
- Refine prototypes and modify mathematical models based on test results.
- Collaborate with account managers and engineers to implement prototype modifications.
- Evaluate prototype performance in terms of quality and durability through field testing.
- Participate or lead engineering design reviews throughout the development process.

Education:

A BS or MS in Mechanical Engineering and preferred 3-5 years of work experience.