



16185 National Parkway Lansing, MI 48906

eckhartusa.com

Phone: 517 321 7700

SENIOR DESIGN ENGINEER

Department: Engineering
Reports To: Director of Engineering
FLSA Status: Exempt
Updated: 03.10.2021

Working at Eckhart is an opportunity to directly impact the future of American manufacturing. We are an Industry 4.0 leader committed to developing advanced manufacturing solutions that enhance the quality of life. Our AUTOCRAFT™ autonomous guided vehicles and FLEXCHECK™ collaborative robotic error-proofing systems lead the market in reliability and dependability. Our suite of solutions includes AGVs, collaborative & traditional robotics, 3D printing, conveyance & automation, highly engineered weld fixtures, lift-assist & ergonomic tooling, and mechanical & electrical engineering services. Our solutions improve employee safety, product quality, and productivity at the largest companies in the world.

Eckhart invests in people because we believe it is our people who differentiate our solutions and our company from our competitors. For over 40 years our company has committed dedicated creative minds to conceptualize and design custom manufacturing solutions for industry. Our customers span medical devices, food, consumer packaged goods, aerospace, automotive, industrial machinery, commercial construction, household appliances, and farm machinery & heavy trucks. We thrive solving our customers' most difficult problems and find satisfaction when customers receive safe and efficient turn-key solutions that enhance their quality of life.

Description

From ergonomic lift-assist solutions, that help manufacturers transfer raw material and large components to points of assembly in factories, to turn key fully integrated controls that empower manufacturing companies to identify parts, confirm work sequences, and monitor product quality, our team loves creativity and ingenuity.

Our design team works with the largest companies in the world to transform how things are made. Having a passion for examining "the way it's always been done" and seeking out a new and better way is a leadership trait we value. This role requires a working knowledge of mechanical principles and an understanding of 3D models, layout drawings, and engineering specifications. Our Sr. Design Engineers work independently and lead design teams to solve our most difficult problems start to finish. Our goal is to exceed expectations and ensure our customers receive an exceptional experience at Eckhart.

Essential Duties and Responsibilities:

- Complete 3D designs that require expertise and experience working in diverse manufacturing environments
- Utilize 3D software to design tools, gages, fixtures and/or machines of varying complexity to be used for the manufacturing of customer products
- Understand customer needs, apply technical knowledge to identify process requirements, recommend and implement custom engineered solutions
- Schedule and lead design reviews with internal manufacturing team
- Support customer design buyoffs as assigned by the value stream Program Manager
- Ensure that the 3D models, prints and the manufacturing release for build package is accurate and complete
- Work concurrently on one or more projects of moderately complex scope
- Meet project timelines and financial targets
- Analyze as-built tool design information and prepare design update plans
- Travel to customer locations to conduct field studies, create field sketches and develop layouts for new system designs
- Collaborate as a productive member on large projects; Lead small projects
- Schedule activities to complete assigned tasks and projects, communicate and document requisite information per established Eckhart policies and procedures working with Program Managers and the Director of Engineering
- Demonstrate Engineering professionalism in all activities and provide efficient service to customers



16185 National Parkway Lansing, MI 48906

eckhartusa.com

Phone: 517 321 7700

- Complete FEA to validate that the design is safe and meets Eckhart's quality standards.
- Create assembly instructions for kits
- Create/update sequence of operations for tools, communicating with Controls Engineering to understand their needs.

Qualifications:

- Technically proficient with various 3D software programs
- Strong working knowledge of mechanical principles, understanding of 3D models, layout drawings and engineering specifications
- Ability to apply engineering theories and related knowledge to design industrial ergonomic systems and automated tooling
- Ability to successfully communicate with internal and external customers who come from a broad spectrum of disciplines
- Must possess leadership qualities
- Ability to learn, understand and apply new technologies
- Must possess strong planning and organizational skills
- Ability to effectively prioritize and execute tasks in a high-pressure environment
- Ability to setup, run and interpret an FEA, applying correct constraints, loads, and conditions

Education and/or Experience:

Prefer a four year degree in design, mechanical engineering, manufacturing or a related field. Requires at least eight years of mechanical 3D solid modeling experience and proficiency in one or more of the following: NX, Solidworks, Catia, Creo, and AutoCAD. Must have basic knowledge and experience in Microsoft Office.