

Job Title: Senior Mechanical Engineer
Full Time

Department: Operations

Reports to: Mechanical Engineering Manager, Dynamic Design Solutions
required

Pay Type/FLSA status: Exempt -

Supervises: No

Shift: Day/Monday-Friday/or as

Dynamic Design Solutions (DDS), an Addtronics company, solves the manufacturing industry's most challenging problems with unique and creative solutions. Trusted by some of the largest and most influential manufacturing companies in the world, the DDS team of dedicated professionals delivers unique, high-quality, custom designed automation equipment. DDS also offers design and fabrication of all types of industrial tooling, especially highly engineered, complex parts, and assemblies. Located in Charlotte, NC, DDS has been a trusted partner within the manufacturing industry for over 25 years.

Position Summary:

Responsible to lead in the design implementation and assembly of custom equipment for various industrial applications. Projects vary from complex automation machines to simple cost-effective machine improvements and upgrades. Candidate will have experience with high-speed mechanisms, pneumatics, indexing machines and automated assembly equipment. Will work closely with customers to ensure their requirements and timeline are met.

Essential Functions and Responsibilities:

- Lead the engineering of custom automated equipment with responsibility for concept, design, fabrication, installation & successful implementation into full production.
- Select proper electromechanical components & analyze structures.
- Coordinate mechanical drawing & BOM creation & verify accuracy with respect to manufacturability and DDS standards.
- Work with vendors to solve fabrication issues, stay within budget constraints and mitigate scheduling conflicts.
- Manage multiple projects; develop schedules and budgets.
- Estimate equipment cost.
- Evaluate the complexity of new designs and recommend changes that will help reduce or eliminate manufacturing time and cost.
- Perform traditional analysis in mechanics of materials, dynamics, stress, etc.
- Monitor and report progress toward engineering deliverables to the engineering manager.
- Define and execute a recovery plan if deliverables are not completed on schedule.
- Review and update labor estimates to complete each assigned job. Notify engineering manager when under or over capacity utilization situations are projected.
- Give technical direction to technicians as needed.
- Consult regularly with project managers to report status, raise issues, take direction, and help where needed.
- Participate in regular project status updates with customers.
- Present designs during internal and customer project reviews.
- Work with project managers, customers, designers, and toolmakers to solve problems to provide the customer with a complete functional system.
- Provide accurate documentation for each project.
- Inform and advise customer on solving technical problems.
- Provide customer with training specific to their current project: machine operation, programming principles, and program structure.

- Review design concepts and labor and material budget estimates supplied by applications engineers.
- Assist in formulating departmental strategic plan.
- Mentor, tutor & instruct draftspersons and designers on various projects.
- Perform as a contributing member in working with other project team members to continuously improve methods of integrating design technology.
- Analyze engineering drawings, and specifications to determine shape, dimensions, hardness, etc. in the development of equipment, processes, and products.

Qualifications Desired:

- BS Mechanical Engineering degree or equivalent experience.
- 7+ years of relevant experience designing automated equipment and machinery.
- Experience in designing & sizing servo motors, linear and rotary precision bearing systems, pneumatics, etc.
- Experience in design & analysis of welded structures.
- 3D CAD solid modeling experience, preferably with SolidWorks.
- Knowledge of Microsoft Office Products.
- Ability to manage large complex projects with skills in precision mechanical & industrial automation.
- Knowledge of machine designs and common machine components including but not limited to drive systems, bearings, lubrication systems, actuation systems and other common machine elements.
- Estimating skills.
- Knowledge of Geometric Dimensioning and Tolerancing (GD&T) and Finite Element Analysis (FEA)(Preferred)
- Fabrication knowledge including machining, sheet metal welding and assembly of machine elements.
- Effective verbal and written communications.
- Leadership potential to lead a team or project.
- Able to follow an organized, disciplined approach to the design process.
- Successful experience troubleshooting complex equipment during project startup phases.
- Experience with high speed mechanisms, indexing machines and automated assembly equipment.
- Must be a team player with a positive attitude.
- Excellent communication and interpersonal skills.

Nonessential Skills and Experience:

- Must be a team player with a positive attitude.

Physical demands and work environment: The physical demands and work environment characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- *Physical demands:*
 - While performing the duties of this job, the employee is occasionally required to stand; walk; sit; use hands to finger, handle or feel objects; reach with hands and arms; lift and carry items up to 50 pounds; climb stairs; balance; stoop and/or kneel.
- *Work Environment:*

- While performing the duties of this job, the employee will work in an office environment, but will frequently visit the shop floor and will conduct site visits as necessary. The noise level in the work environment can be minimal to high. Must adhere to DDS and customer safety protocols.

Position Classification

This is a full-time, exempt salaried position. Depending on the needs of the business, the ability to work more than 40 hours/week and/or weekends may be required.

Travel

Travel to support the business is required and expected to be less than 15%.

EEO Statement

It is the policy of Dynamic Design Solutions, LLC to provide equal employment opportunities to all persons. In accordance with anti-discrimination laws, it is the purpose of this policy to effectuate these principles and mandates. DDS prohibits discrimination and harassment of any type and affords equal employment opportunities to employees and applicants without regard to race, color, religion or belief, national, social or ethnic origin, sex (including pregnancy), age, physical, mental or sensory disability, HIV status, sexual orientation, gender identity and/or expression, marital, civil union or domestic partnership status, past or present military service, family medical history or genetic information, family or parental status, or any other status protected by the laws or regulations.