



Senior or Principal Mechanical Engineer

About Uni-Systems Engineering

Uni-Systems Engineering is a single source provider of custom mechanization for iconic structures and attractions that deliver impressive experiences for our customers and the general public. We partner with engineers, architects, and construction managers to mitigate risk and deliver functionally integrated, reliable showpieces. Our team of mechanical, structural, and electrical engineers specializes in providing custom, project-specific solutions to complex and unprecedented engineering challenges. We work in a wide range of industries including Stadiums and Ballparks, Telescope Observatories, Amusement and Entertainment, Aerospace, Manufacturing, and Residential. Please see our website (www.uni-engineer.com) for more project information.

Job Summary

Uni-Systems Engineering is looking for an experienced Senior or Principal Mechanical Engineer with leadership aptitude that is eager to change the moving world around them and drive the company strategically. This individual will have the opportunity to create world renowned operable structures that are highly visible to the public and will interact with and develop their work from the concept all the way through installation in a highly collaborative, multi-discipline environment.

The person in this role will provide effective engineering leadership, input, and design support on a project basis. They will contribute to multiple aspects of projects including design, documentation, purchasing, fabrication, installation, and commissioning of mechanized structural systems.

This position will provide work direction, technical expertise, and effective communication to the project team while simultaneously evaluating and vetting ideas from other disciplines and high competency teammates. It will utilize strong analytical skills to resolve complex technical challenges and outcome-oriented self-direction to achieve ambitious project goals.

- Design of complex machinery including gearing, actuators, wheels, weldments, bearings, and the assemblies they go in
- Contribute to concept and engineering design development; produce engineering calculations as required for projects and design development of systems
- Serve as Project Engineer for various projects
- Communicate with clients
- Develop design budget and schedule
- Monitor budget and schedule during the design phase

- Coordinate entire design team to complete the design and achieve project objectives
- Actively participate in scheduled design reviews with contractor, architect, engineering consultants, and other project team members
- Interface with other departments to coordinate structural systems with electrical and mechanical systems
- Provide project status updates for Project Review Meetings and other company meetings
- Interface with field personnel and purchasing to determine and obtain required materials
- Interface with purchasing to determine and obtain required components
- Develop prototype designs and test procedures as required by the project; supervise prototype testing and troubleshooting, write prototype test reports
- Assist in prototype development, implementation, and documentation
- Assist in operation & maintenance manual production
- Visit manufacturing/vendor sites to inspect and test components before shipping to assembly
- Drive continuous improvement by finding ways to enhance quality and performance with shop and field assembly, adjustment, function, aesthetics, costs, and maintenance
- Support Uni-Systems Engineering Sales & Marketing Efforts:
 - Provide technical and media support for O&M documentation, including manual reviews, technical documentation, and visual materials
 - Write articles for magazines and technical journals

Benefits of Employment

- Competitive salary
- Opportunity for growth
- Medical insurance
- Dental insurance
- Vision insurance
- HSA and FSA options
- Life insurance
- ST and LT Disability insurance
- 401K plan with above-market company matching
- Generous Paid Time Off (PTO) plan
- Company Holidays

Job Requirements

Employment Authorization

- Citizen of the United States or a Permanent Resident of the United States

Education and Certification

- B.S. degree from an ABET-accredited institution in Mechanical Engineering or Aerospace Engineering
- M.S. degree from an ABET-accredited institution in Mechanical Engineering is advantageous
- E.I.T. certification preferred
- P.E. registration is advantageous

Experience

- 5+ years' experience with B.S. degree or 3+ years' experience with M.S. degree (Senior)
- 7+ years' experience with B.S. degree or 5+ years' experience with M.S. degree (Principal)
- Managed risks associated with custom designs
- Worked with clients' input to innovate and creatively solve multifaceted problems

Knowledge

- Knowledge of current codes and requirements that apply to the Mechanical Engineering discipline
- Advanced understanding of engineering software including modeling and analysis; most advantageous being SolidWorks, Solidworks Simulation, MathCAD, Ansys.
- GD&T
- Knowledge in motors, actuators, gearing, hydraulics a plus
- Knowledge of fabrication techniques and machine shop experience is advantageous
- Exposure to mechanical equipment/systems and/or a general aptitude to being hands-on is advantageous

Skills and Abilities

- Desire to solve mechanical problems including everything from bearings to actuator sizing with a system level focus
- Proficient at using analysis software
- Independently determines and develops approach to solutions and work under general direction
- Self-directed, results-oriented with proven ability to organize, plan, and prioritize work to meet deadlines
- Communicates effectively with management, employees, vendors, and customers
- Strong attention to detail in completing work
- Can apply sound judgment and problem-solving skills to complex projects and business challenges
- Ability to work successfully within a team, cross-functionally, and independently
- Excellent verbal and written communication skills
- Travel (domestic and foreign) during design, installation, and commissioning of projects, up to roughly 5% of the time