



Designer II

**This position requires access to export-controlled technical data subject to U.S. export control laws (including ITAR). Therefore, candidates must qualify as a U.S. person under ITAR (U.S. citizen or lawful permanent resident).*

About Uni-Systems Engineering

Uni-Systems Engineering is a premier provider of custom mechanization for iconic structures and attractions that create unforgettable experiences. We partner with engineers, architects, and construction managers to deliver functionally integrated, reliable structures across industries including Aerospace, Amusement and Entertainment, Stadiums and Ballparks, Telescope Observatories, and Custom Cranes.

Visit www.uni-engineer.com to learn more.

Job Summary

Uni-Systems Engineering is seeking a detail-oriented, resourceful Designer to join our team of mechanical, electrical, and structural engineers. Working collaboratively with engineers, designers, and drafters across disciplines, you will lead the development of individual components, assemblies, and full system designs, from initial concept through fabrication-ready documentation. Responsibilities may also include hands-on drafting as needed to support the design process. This is an excellent opportunity for someone who thrives on variety, enjoys ongoing learning, and is energized by the challenges of highly customized design work. This full-time position is on-site at our Minneapolis, MN office, and includes occasional domestic and international travel (up to 5%) to support design, installation, and commissioning.

Job Responsibilities

- Independently develop 3D models, assemblies, and full system designs in CAD software (SolidWorks and/or AutoCAD), creating, correcting, and improving models — including new design content.
- Apply GD&T (ASME Y14.5) and select appropriate fabrication tolerances throughout the design process; perform basic tolerance stack-ups.
- Work independently in SolidWorks PDM; identify gaps in design and drafting standards and contribute to SOPs and documentation.
- Participate in design reviews with engineers, contractors, architects, and other project team members.



- Support prototype testing and validation of new assemblies and structures.
- Build and maintain bills of materials and project tracking for components, assemblies, and systems.
- As needed, create and revise part, assembly, and installation drawings — including appropriate tolerances and notes — judging when a drawing or model is ready to release.
- Manage your own schedule against expected timelines, accurately evaluating urgency across multiple systems and projects.
- Support peers with SolidWorks troubleshooting and advice, and help guide Level I designers/drafters on specific tasks.
- Provide periodic shop and field assembly support.
- Stay current with engineering codes, standards, and project-specific specifications.
- Contribute to continuous improvement in quality, performance, and manufacturability across shop and field assembly, function, aesthetics, cost, and maintenance.

Job Requirements

Minimum Qualifications

- Must qualify as a U.S. person under ITAR due to access to export-controlled technical data.
- Minimum two-year degree in Computer Aided Design/Drafting or related technical training, or equivalent experience.
- Minimum 3 years of relevant design and/or drafting experience.
- Proficiency in 3D CAD modeling and drafting (SolidWorks strongly preferred; AutoCAD a plus).
- Demonstrated ability to create, correct, and improve 3D models — including new design content — under general supervision.
- Working knowledge of GD&T and tolerancing, including how tolerance selection affects fit and fabrication.
- Experience with CAD data management (SolidWorks PDM preferred).
- General knowledge of manufacturing and fabrication techniques.
- Ability to read and interpret engineering drawings, dimensions, tolerances, and technical specifications.
- Ability to work efficiently and communicate effectively within a multidisciplinary team.
- Self-directed and results-oriented, with a proven ability to organize, plan, and prioritize work across multiple projects to meet deadlines.

Preferred Qualifications

- Experience collaborating tolerance stack-ups on complex assemblies.
- SolidWorks certification (e.g., CSWP or a discipline-specific certification) a plus.
- Fabrication and machine shop experience, including knowledge of raw materials and quality control practices.



- Working knowledge of applicable industry and client standards (e.g., ASME, customer specifications).
- Experience identifying and addressing design risks associated with custom, project-specific designs.

Benefits of Employment

- Competitive pay and growth opportunities.
- Comprehensive benefits package including medical, dental, vision, life, and disability insurance.
- 401(k) plan with above-market company matching.
- Generous Paid Time Off (PTO) and Paid Company Holidays.
- HSA and FSA options.
- A collaborative culture built on integrity, respect, innovation, value, and enterprise.

If you are passionate about solving complex challenges and shaping innovative solutions, we encourage you to apply for this exciting opportunity at Uni-Systems Engineering!