

CONTROL SYSTEMS ENGINEER

ROLE INFORMATION

Title	Control Systems Engineer	Location	College Station, TX
Department	Engineering	Job Type	Full time
Supervisor	Chief Engineer		

ABOUT FLUXWORKS

Empowering Progress, Transforming Motion: At FluxWorks, our **Mission** is to steward innovation that changes lives and drives the future. Our mission and vision are realized through a commitment to **Quality of Work**, leveraging our **Team's** collective strengths and drive for perpetual learning, all the while deepening **Relationships** with our customers.

ABOUT THE ROLE

The Control Systems Engineer will lead in creating sophisticated control strategies and testing programs to ensure our gears power more, using less. This role involves applying innovative thinking to overcome design challenges, ensuring both practicality and cutting-edge application.

CATEGORIES OF KEY PERFORMANCE INDICATORS



GOALS

- **Technical Leadership:**
 - Provide visionary technical leadership, setting the direction for advanced design and research initiatives that align with the company's strategic goals.
 - Share expertise, provide guidance, and mentor engineers, fostering a culture of innovation, excellence, teamwork, and knowledge sharing.
- **Design and Analysis:**
 - Lead the design, development and application of control system theory to compile software code for new and existing systems.
 - Implement and fine-tune feedback control algorithms to ensure precise motor control, reduce vibrations, and enhance overall system stability.
 - Develop real-time monitoring and diagnostics tools to continuously assess motor health, detect anomalies, and initiate preventive maintenance.
 - Utilize simulation tools and conduct extensive testing to validate control system designs, fine-tuning parameters for optimal performance.

- **Innovation and Problem Solving:**
 - Drive innovation by proposing and developing new product concepts, technologies, or design improvements.
 - Identify opportunities for patentable innovations, leading patent filing efforts to protect valuable intellectual property.
- **Documentation**
 - Create and maintain detailed documentation of control system designs, algorithms, assumptions, methodologies, and results for reference and future projects.
 - Prepare and deliver clear and concise reports and presentations to communicate simulation results and recommendations to internal and external stakeholders.
- **Collaborate with Cross-Functional Teams**
 - Collaborate with cross-functional teams to understand project requirements and translate them into effective control systems and testing strategies.
 - Actively participate in design reviews, providing insights and recommendations to ensure the seamless integration of control systems into products.
- **Project Management**
 - Lead or contribute to design and testing projects, ensuring they are completed on time and within budget.
- **Stay Current**
 - Continuously update knowledge on the latest advancements in control theory, automation, and software tools to drive innovation in control system development.
- **Flexibility**
 - Adapt to emerging company needs by undertaking additional duties and tasks as necessary.

QUALIFICATIONS

- Bachelor's degree in Electrical Engineering, or a related field; master's degree preferred.
- 3+ years of experience in control systems engineering or a related role.
- Proficiency in systems engineering software such as:
 - LabVIEW
 - Simcenter Amesim
- Strong programming skills, with experience in languages such as:
 - Matlab/Simulink
 - Python
 - Embedded C / C++
- Solid understanding of statistical analysis and optimization techniques.
- Exceptional problem-solving and analytical abilities.
- Excellent communication skills and the ability to convey complex technical information to non-technical stakeholders.
- Leadership skills and the ability to work effectively in cross-functional teams.

SALARY & BENEFITS

- Compensation commensurate with experience and qualifications.
- FluxWorks has a competitive benefits package that includes:
 - Health, dental, and vision plans
 - Unlimited PTO

OTHER DETAILS

- FluxWorks provides equal employment opportunities to all employees and applicants for employment and prohibits discrimination and harassment of any type without regard to race, color, religion, age, sex, national origin, disability status, genetics, protected veteran status, sexual orientation, gender identity or expression, or any other characteristic protected by federal, state, or local laws. This policy applies to all terms and conditions of employment, including recruiting, hiring, placement, promotion, termination, layoff, recall, transfer, leaves of absence, compensation, and training.
- This position may require US Citizenship as a bona fide occupational qualification due to the specific security and contractual requirements associated with our work as a defense contractor.
- All positions are security sensitive. Applicants are subject to a criminal history investigation, and employment is contingent upon the institution's verification of credentials and/or other information required by the institution's procedures, including the completion of the criminal history check.
- To accomplish this job successfully, an individual must be able to perform, with or without reasonable accommodation, each essential function satisfactorily. Reasonable accommodation may be made to help enable qualified individuals with disabilities to perform the essential functions.
- The work environment characteristics described here are representative of those employee encounters while performing the essential functions of this job. Reasonable accommodations, in accordance with ADA, may be made to enable individuals with disabilities to perform the essential functions.
- To the extent that work entails access to export-controlled items or information, award of the position is contingent on obtaining the relevant export control authorizations.

CONTACT

If you have any questions about this position or the application process, please feel free to reach out to our HR department at HR@fluxworks.co.

To submit your resume for consideration, please send it to HR@fluxworks.co with the job title in the subject line.