



# Czero, Inc.

## Job Opening – Full Time or Contractor

### Controls Engineer

Posting#: 2018-008

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**Date of posting:** October 01, 2018

**Location:** Fort Collins, Colorado 80524

*\*\*\*Please note: Must live within commuting distance of Fort Collins\*\*\**

**Time commitment:** Full Time

**Reporting structure:** Reports to VP of Engineering

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### JOB DESCRIPTION

Czero seeks an experienced controls engineer with deep expertise in software and programming for embedded systems development for complex machines.

The engineer in this role will work as part of an agile, highly collaborative R&D team that designs and develops first- and second-stage prototype systems for advanced automotive, oil and gas, clean tech, aerospace, transportation and other industries.

We are looking for an engineer with experience in the field of motion control and/or robotics to augment our current controls expertise. Czero is a small company so our controls engineers must wear multiple hats; systems engineer, automation engineer, and firmware engineer to name a few. This provides for multiple opportunities for our engineers to expand their breadth of knowledge.

At Czero, you'll work on a wide variety of projects for companies large and small, developing embedded controls for mechanical, electromechanical, and electrohydraulic systems and subsystems. We specialize in first-ever technologies, energy efficiency, and integrating novel technologies into existing systems. Our projects range from high-efficiency powertrain systems to mobile and industrial hydraulics to large-scale system integration.

This position may require occasional travel for onsite work with clients, depending on the projects we have in progress.

### Representative tasks

- Work with clients and other stakeholders to define system objectives and specifications.
  - Develop new concepts and designs to solve challenging R&D projects.
  - Develop control solutions for diverse devices, machines and applications that incorporate various control strategies.
  - Select and implement hardware (rapid prototyping systems, data acquisition, PLCs, custom hardware) and software platforms to support desired architecture.
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- Develop and test algorithms to meet system objectives.
- Apply established tools for software documentation, adherence to requirements, version control, and meeting system objectives for performance and quality.
- Hands on testing, validation, and implementation of control systems in laboratory environments and in the field.
- Participate in peer reviews of software and hardware designs

## QUALIFICATIONS

### Education

Bachelor's degree in mechanical or electrical engineering with specialization in robotics and controls (advanced degree preferred).

### Experience required

8+ years of experience developing embedded controls systems.

### Essential for this position

- Experienced in all phases of motion control or robotic system development.
- Experience with various communication protocols such as Modbus, Ethercat, and CAN.
- Proficiency in controls design, software development, and data acquisition and analysis.
- Ability to apply skills to simulation, code development, and implementation in the test cell and laboratory.
- Strong verbal and written communication, and interpersonal skills.
- A passionate interest, shared with everyone on the Czero team, in developing profitable innovations that make a positive global impact.
- Commitment to Czero's goals and a desire for continuous improvement.

### Additional consideration given to those with experience in these areas

- MATLAB & Simulink
- Embedded Software Development
- Automotive, oil and gas, aerospace, heavy industrial or cleantech industries
- Development of new hybrid architectures and intelligent control systems to update traditional technologies for higher performance and greater efficiency

### Residency requirements

U.S. citizenship or the ability to satisfy U.S. Department of Justice requirements without assistance from Czero.

### The right fit for our team

Beyond technical ability, we're looking for someone who is smart, creative, innovative, hardworking, able to handle multiple projects at a time, and tenacious when it comes to a tough challenge. Everyone at Czero enjoys the challenge of tackling hard problems and is willing to put in the time and effort to solve them. Additionally, we have a true team environment, so it's crucial that you can collaborate effectively with diverse team members.

If you join our team, you will find Czero an interesting, challenging, and rewarding place to work. Your contributions will make a significant impact globally on high-profile projects that are positive for our clients, the environment and the economy.

### **HOW TO APPLY**

Please email a PDF of your cover letter and résumé to [careers@czero-solutions.com](mailto:careers@czero-solutions.com)

### **ABOUT CZERO**

An established, fast-growing mechanical engineering firm located in Fort Collins, CO, Czero specializes in early-stage R&D in the areas of automotive, commercial vehicles, oil and gas, and clean technologies for local and global companies. Our team takes on wide-ranging engineering challenges for both private and public sector clients, developing new technologies and delivering high-quality proof-of-concept prototype systems.

We are passionate about the environment, and our work centers on scalable, cost-effective solutions to increase energy efficiency, improve energy storage and decrease harmful emissions. Czero has a strong network of partner companies, suppliers, and university collaboration partners, including the Colorado State University (CSU) Energy Institute, often working with university researchers on cutting edge technology development.

### **RECRUITERS**

Please do not contact us regarding this or other positions at Czero; we already have an established relationship with a great recruiting team. Thanks!