

Motor Controls Engineer

September 2025

About C-Motive

C-Motive is a startup in Middleton, WI, commercializing electric motors with sustainability and efficiency as top priorities. This technology was born out of UW-Madison and will be the first of its kind on the market.

Half of all electricity globally is consumed by electric motors. C-Motive's patented electrostatic motor technology delivers 95%+ efficiency, uses no rare-earth metals, less than 1% the copper, and has the potential to deliver over a gigaton of carbon savings in the next decade.



A C-Motive Electrostatic Motor

The global motor marketplace is \$100B annually and C-Motive is poised to become a significant player in the coming few years. No one else in the world is developing electrostatic machines and our goal is to become the reference motor technology for a new generation of products.

Motor Controls Engineer

C-Motive is seeking a motor controls engineer to architect and develop the controls systems of our electrostatic motor drives. This role requires a strong background in linear systems analysis and controller design, proficiency with tools like MATLAB/Simulink, as well as collaboration with hardware and software teams to integrate motor control solutions into larger motor/drive systems.

This individual will be a part of the drive development team and work hand-in-hand with other teams to move quickly and collaboratively. Prior start-up company experience is a strong plus but is not required. The ideal candidate will have developed high-performance electromechanical control systems within fast-paced, disciplined environments. Familiarity and/or experience with the latest types of development tools to accelerate development of complex systems is a strong plus.



What You Will Do

- Develop control algorithms, writing embedded firmware in C/C++, creating simulation models, performing bench and in-vehicle testing, and troubleshooting system issues.
- Write, test, and debug embedded C/C++ code for motor controllers and Electronic Speed Controllers (ESCs).
- Develop performance models in MATLAB/Simulink to simulate and analyze motor and system performance, ensuring stability and desired attributes.

Qualifications

- 10+ years of experience in high performance motor and/or multilevel power converter control systems is strongly desired.
- Strong understanding of AC and DC motor types, drive systems, and control theory.
- Prior experience developing models of various detail for control systems of VFD-powered electromagnetic motors or linear actuators.
- Familiar with current toolsets for accelerating development: HIL, auto coders, etc.
- Experience with PID loop control strategies.
- Knowledge of PWM (Pulse Width Modulation) schemes and various motor control algorithms.
- Hands-on experience with Position/Speed/Torque Closed Loop Vector Control based on sensors or sensorless feedback.
- Past design experience implementing motor control strategies for various motor types, such as Fuzzy Logic Control (FLC), Direct Torque Control or Field-Oriented Control (FOC).
- A MS or PhD in electrical engineering/computer science with emphasis on machine and power electronics control systems is required.

C-Motive is committed to equitable compensation, and we offer a generous benefits package to make sure you have the support you need. We offer a take-what-you-need paid time off program and every employee, regardless of gender identity or expression, is eligible for paid parental bonding leave. We have implemented a 401k program and all employees are granted stock options with typical vesting periods.

We are committed to creating an inclusive environment for all our employees and are seeking to build a team that reflects the diversity of the people we hope to serve with our revolutionary products. C-Motive is proud to be an equal opportunity employer.

To learn more about C-Motive, our team, and our company culture, please visit: c-motive.com/about/mission-vision-and-values