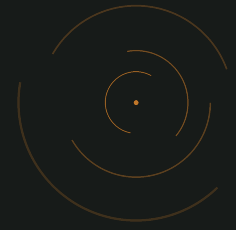


STIMITA MOTION CONTROL

PRECISION MOTION SYSTEMS FOR DEFENCE · PUNE, INDIA

Control Systems Engineer

CONTROLS, FIRMWARE & MOTION SYSTEMS

**LOCATION**

Pune, Maharashtra — On-site

EXPERIENCE

5–8 years

EMPLOYMENT TYPE

Full-time, permanent

ABOUT STIMITA MOTION CONTROL

Stimita Motion Control designs and manufactures custom actuators, servo drives, motion controllers, encoders, gearboxes, slip rings and hand-grip systems for defence and industrial platforms — from gimbals and remote control weapon system to unmanned ground vehicles. We're a small, engineering-led team building precision hardware end-to-end, from prototype to production, for customers including DRDO, BARC, HAL, BEL, and Bharat Forge.

ABOUT THE ROLE

We're hiring a Control Systems Engineer to be responsible for the controls and software side of our products end-to-end — from early R&D and algorithm design through production-ready firmware/Software. Our servo drives, motion controllers, and encoders all depend on tight, reliable control-loop and firmware engineering, and this role carries that responsibility :researching new control approaches, designing and analyzing control algorithms, writing and validating the software/firmware that runs on our hardware, and making sure it ships production-ready. You'll be the senior technical authority on controls and firmware.

KEY RESPONSIBILITIES

Research & Development

- Research and evaluate new control algorithms and firmware architectures for servo drives, motion controllers, and machine systems.
- Responsible for feasibility studies on new control approaches before they move into detailed development.

Control & Firmware/software Design and Analysis

- Design and tune control loops — PID and beyond — with full stability analysis (phase margin, gain margin, step response) for every control loop shipped.
- Design and implement motor control algorithms, including field-oriented control (FOC) and commutation strategies for servo and BLDC motors.
- Perform real-time scheduling and timing-budget analysis to confirm control loops meet required servo bandwidth and latency.

- Design fault detection, watchdog, and fail-safe logic appropriate to defence-critical systems — a control system should fail safe, not fail silently.
- Validate every design through hardware-in-the-loop (HIL) testing and firmware/software unit/regression testing before full system integration.

Production Readiness

- Take firmware/software and control designs from R&D through fully production-ready, documented, and repeatable code — not just a working bench demo.
- Coordinate with mechanical and hardware electronics engineering on integrated systems where controls and hardware intersect.
- Responsible for firmware documentation, version control, and release processes to a standard production can build from reliably.

Technical Leadership

- Serve as the senior technical authority on controls and firmware at Stimita Motion Control.
- Support technical scoping for client proposals and tenders where controls/firmware credibility matters to winning the bid.

WHAT WE'RE LOOKING FOR

- 5–8 years of experience in firmware engineering, ideally with motion control, servo systems, or motor control experience.
- Strong foundation in control theory — comfortable with PID tuning, stability analysis, and control-loop design, not just implementation.
- Hands-on experience with field-oriented control (FOC) or similar motor commutation algorithms.
- Real-time embedded firmware development experience (C/C++, RTOS or bare-metal), not just high-level software.
- Experience with industrial/motion communication protocols — CAN, EtherCAT, RS-422/485.
- Comfortable validating firmware through hardware-in-the-loop testing, not just simulation.
- Experience in precision engineering, defence, or motion-control systems strongly preferred.

WHAT WE OFFER

- Full responsibility for the controls and firmware function at Stimita Motion Control — real technical depth, not narrow implementation work.
- Direct access to and regular working contact with the founder/CEO.
- A front-row seat in a growing defence-engineering company building hardware that ships to DRDO, BARC, HAL, BEL, and Bharat Forge.
- Competitive compensation, commensurate with experience.

HOW TO APPLY

Send your resume and a short note on relevant experience to career@stimitamc.com with the subject line “Control Systems Engineer — Pune.”