

C++ Embedded Software Engineer – Global Inkjet Systems

Company Overview

Global Inkjet Systems (GIS), a division of Nano Dimension, is an awarding-winning global leader in the development and supply of application software, electronics, and ink system components into the industrial inkjet printing market. Our focus is on designing tailored next generation software, advanced printing system components, and providing services for our customers worldwide, in fields such as direct to shape printing, inkjet hardware components and 3D printing.

We foster a friendly culture for people to work collaboratively towards success, communicate openly to challenge the norm and nurture people to create future thought leaders.

Job Summary

At GIS, the R&D team develop high-speed drive electronics/software for controlling precision fluid deposition, including 3D, ink, and additively manufactured electronics (AME). The embedded software enables the control of very large machines printing on flat substrate or 3D surfaces.

The C++ embedded team is responsible for a variety of real-time systems, from controlling the printhead driver electronics, to ink systems hardware and optical subsystems for some of the largest and most complex machines in industrial inkjet.

Once you are up to speed with our software you will be given one or more products to own and will eventually be responsible for the design of new products. Controlling the waveform of thousands of nozzles in complex patterns at 10s of kHz, and handling high bandwidth data, you will design reliable software for 24/7 industrial systems. You will use your architectural ability to design new features and your coding skill to develop clean, reliable solutions. You will be welcomed into a team of enthusiastic, capable developers!

These projects are multi-disciplinary, and you will apply your natural communication skills working with the embedded, hardware, and test teams, as well as the Atlas user interface app software team.

Key responsibilities

- Designing, coding, and testing new features
- Maintenance of commercially deployed products
- Contributing to the overall system design
- Enabling customers to develop and control complex industrial inkjet systems
- Full lifecycle product ownership

Qualifications and experience

- Developing efficient object-oriented software with modern C++.
- Focus on safety and reliability, e.g. concurrency, robust error handling, testing.
- Interfacing with hardware devices, e.g. I2C, SPI, Ethernet, FPGAs.
- Linux on ARM architecture.

Useful but non-essential experience (you will learn a lot about these in the role)

- Image processing.
- Network programming (e.g. TCP/IP, REST).
- Linux boot process and device tree.
- Inkjet printing.

Benefits

- Pension contributions
- Private health insurance
- Life insurance
- Staff kitchen with snacks, chocolate, fruit, and drinks
- Social events
- Charity committee
- 25 days annual leave
- Cycle-to-work scheme
- Friendly work environment