

Firmware Development Engineer - Controls

Ref. FDE_CO_IT_2610

Location: Lainate (MI), Italy



About the job

Do you want to help build tomorrow's world? Welcome to Carlo Gavazzi, an international organization specializing in the development, manufacturing, and distribution of Industrial Automation Components.

Our global footprint includes 23 owned sales companies and manufacturing plants across the Americas, Europe, and Asia Pacific. Our Group's products (sensors, monitoring relays, timers, energy management systems, solid state-relays, safety devices) provide automation solutions for the global markets of industrial and building automation.

Are you passionate about writing C code that brings products to life, and do you find it exciting to define new architecture? Then you can have a day in a versatile development team at Carlo Gavazzi. Our Control Product Line designs energy meters, from standard models to advanced platforms that carry embedded Linux on board for data storage and for every kind of IoT service. Three topics come back in every new design: measurement performance, firmware that is fully compliant with the Cyber Resilience Act, and industrialization.

You will join the Controls R&D group in Lainate, reporting to the R&D Manager, and you will work as one team with our colleagues in Belluno and in Kunshan, China.

What does this mean?

Your task will be to design structured embedded firmware for our energy meters. Your center of gravity is the microcontroller: measurement algorithms, field protocols and security structures the product rests on. Embedded Linux runs alongside you on advanced platforms, so you need to know it well enough to work with the people on that side.

Your task will include:

- Embedded firmware development in C and C++ for 32-bit microcontrollers;
- Development and optimization of measurement algorithms, working on accuracy and performance;
- Designing to the cybersecurity requirements of the Cyber Resilience Act, with structures that support secure boot, secure update and secure storage;
- Implementation of communication protocols of different kinds: Modbus, BACnet, EtherNet/IP, LoRa, wM-Bus, Wi-Fi and others;
- Work with embedded webserver frameworks and API implementation;
- Writing the software that drives laboratory instruments together with the test and communication functions of the meters;
- Collaboration with hardware designers on system design and component choice: secure boot and secure storage rest on a hardware root of trust, so microcontroller and memories are a decision you two take together;
- Actively participating in all project phases: specification, design, implementation, testing and debugging;
- Collaboration with Product Management on determining product requirements to ensure an optimal technical solution.



Requirements and qualifications

Sounds great! Am I the **Firmware Development Engineer** you are looking for? Let's see:

- You are a qualified engineer with at least 3 years of experience in firmware design, holding a degree in Electronic Engineering or a related technical field with solid electronics content;
- You are strong in C and C++, and you have delivered software projects that are now running in the market;
- You have interest and experience in projects with the implementation of structured software architecture;
- You are interested in the border between firmware and hardware: you read a schematic, you follow a measurement chain, and you can sit down with a hardware designer and agree on which side of the boundary a problem is best solved;
- You work with AI tools as part of your method, to analyze, simulate and anticipate problems before they reach the bench;
- You are autonomous on the tasks you are given, you organize your own work and you keep your colleagues up to date;
- You speak and write both Italian and English fluently, as we are part of an international group;
- You are a team player, motivated and thrive in a dynamic environment;
- You dare to take the lead and focus on the goal, so that we complete the projects to the satisfaction of our customers.

The position is based in Lainate and works day by day with Belluno, largely remotely, but also with some time on site when the project asks for it.

Why should you apply?

- You will be joining an international team of enthusiastic and passionate colleagues.
- You will be working on the design and development of truly unique products, end-to-end. Yes, you can be an inventor! There is nothing more thrilling than seeing your work out there on the market.
- The technology range is wide, from measurement algorithms to IoT services, so your knowledge grows project after project and every new product puts a new challenge in front of you.
- Carlo Gavazzi is a fast-growing company, so you can grow with us and grow in your area of expertise or interest.
- And yes, Carlo Gavazzi is an award-winning company! We want to excel in what we do, it's no walk in the park but our hard work pays off.

Compensation

The **minimum** gross annual salary for this position is from **€45,000**, to be defined based on the candidate's experience, skills, and qualifications.

Interested in finding out more?

Please send your CV to **GlobalTalent@carlogavazzi.ch** indicating the role as reference subject if you are interested in!

Browse our website (www.gavazziautomation.com) or visit our [LinkedIn page](#)

The **Data Controller** is Carlo Gavazzi Controls SpA with registered office in Viale Lunigiana 46 - 20125 Milan ,Italy - globaltalent@carlogavazzi.ch