



Embedded Software Engineer – Electric Vehicle Charging Equipment

Duku are a vibrant, well-established product design consultancy located in Cheltenham, Gloucestershire who specialise in the design and development of EV charging infrastructure.

We are offering an excellent opportunity for an experienced Embedded Software Engineer to join our team to assist in the design and development of innovative electric vehicle charging equipment for public sector, commercial and domestic clients across the UK.

We are working on a range of exciting projects that require a multidisciplinary design team to work collaboratively on all aspects of product development including:

- Design specification and sourcing
- Mechanical design engineering
- Electrical and electronic engineering
- Software development
- CAD development, prototyping & design for manufacture
- Product testing & certification

This is an exciting time to join a growing design consultancy with a specialist EV team working on products in a high growth industry and play a direct role in the design and execution of a range of innovative EV charging solutions. In addition, the role provides an excellent opportunity to work on a broad range of other projects including consumer products, mobility, health and fitness and medical devices.

We're looking for a motivated, passionate and personable embedded software engineer with demonstrable experience in embedded software and hardware development. The successful applicant must have experience with Embedded C/C++ and/or Python and experience of working across multiple Operating systems such as Linux, Android or embedded OS (eg Arduino, Microchip).

To be successful in the role you will need strong project management skills, able to deliver projects on time to a high standard. You will be a self-starter, able to work well both independently and as part of a wider team and build strong relationships with the design team, suppliers and clients.

Skills & Responsibilities

- Work alongside the product development team to develop and release software and firmware for our products.
- Take full ownership of embedded software development for new products, including maintenance and debugging.

- Involvement in system-level design and collaboration with electronics engineers in specifying and selecting appropriate microcontroller / processors to meet product requirements.
- Troubleshooting faults in collaboration with other engineers to identify the root cause of problems and implement corrective action.
- Implement and manage third party API integrations.
- Implement and manage Bluetooth integrations.
- Generating necessary documentation, i.e writing software requirements specification, design documents & validation and verification documentation.
- Manage software and firmware requirements.
- Validate software and firmware.
- Engage with stakeholders including to develop requirements and test methods.
- User interface development and integration.

Requirements

- Degree in Electronics Engineering, Computer Science or related field.
- At least 5 years of industrial experience in embedded software design.
- Prior experience developing embedded software for commercial products
- Good understanding of basic hardware and its interfaces with software systems.
- Ability to read electronics schematic diagrams, component data sheets and use standard hardware bench equipment (digital oscilloscope, logic analysers, signal generators, etc).
- Capable of developing code from either a blank slate or building on an existing codebase.
- Experience in developing embedded software for commercial consumer electronics products.
- Bare metal & RTOS microcontroller software development in C on resource-constrained devices (8-bit / 16-bit / 32-bit microcontrollers).
- Detailed understanding of microcontroller peripherals down to register level and have experience writing low-level drivers for SPI / I2C / UART / ADC / PWM / DMA /motor controllers etc.
- Experience with microcontrollers development tools, compilers and debuggers.
- Good understanding of basic hardware and its interfaces with software systems. Ability to read electronics schematic diagrams, component data sheets and use standards hardware bench equipment (digital oscilloscope, logic analysers, signal generators, etc).
- Self-starter, complex problem-solving skills, attention to detail, methodical mindset and a fast learner.
- Strong communication, planning, and task management skills.

Desirable

- Experience in electric vehicle charging or relevant field
- Experience of OCPP / OCPI integration.

- Development experience of IoT related connectivity technologies e.g. Wi-Fi, BLE, ZigBee, Ethernet.
- App development experience for iOS / Android devices.
- Experience with Microchip PIC & Arm Cortex-M devices.
- Experience of working within a Quality System such as ISO 9001

Benefits

- Salary depending on experience.
- Working in the centre of Cheltenham.
- Parking Available.
- Workplace pension scheme
- Annual performance reviews and progression opportunities.