

## Embedded Systems Engineer

<b>Reporting To:</b>	Head of Product Development
<b>Term:</b>	Contract or Permanent
<b>Package:</b>	Competitive
<b>Location:</b>	London (Wandsworth)

### The role:

Q-Bot is a high tech, high growth, international start-up, developing robotics and intelligent systems that will revolutionise the built environment. The company is looking to hire a talented Embedded Systems Engineer, to join a rapidly growing, multidisciplinary product development team. The ideal candidate would be comfortable working in close proximity to the silicon, have a degree and work experience in a relevant subject such as Software, Electronics, or Control Systems Engineering, and have at least 5 years professional experience. This is a hands-on-role with an emphasis on architecture, design and development, from conceptualisation through to delivery. The successful candidate will be responsible for ensuring the company's embedded systems perform as required, are usable, reliable and can be scaled. They will structure the development program, and help to shape the direction of future research and development.

This is an excellent opportunity to get involved high growth company as it scales, work within a creative and dynamic team, with many opportunities for career progression. To make the most of this exciting opportunity Q-Bot is looking for someone who is ambitious, driven, passionate about robotics/AI, and who will be motivated by seeing their efforts have a real and lasting impact. The successful candidate will be rewarded with an exciting and diverse role, and influence to shape the engineering vision and strategy of the company.

### Duties of the job:

- Creating firmware for the next generation robot platform.
- Writing new drivers such as SPI thermal imaging, IMU, Ethernet, USB, and CAN.
- Testing code on the new hardware, including testing on site.
- Creating diagnostic tools (self-checks of hardware, auto-recover, error reporting and logging).
- Reconfiguring firmware for other robotic platforms.

### Essential requirements:

- Professional experience with industrial microcontrollers (not Arduino!)
- Ability to write clean and maintainable code (SOLID principles).
- C++ experience (ideally C++11 or above).
- Experience with real-time operating systems (RTOS).
- Use of a layered architecture and unit testing.
- Must be eligible to work in the UK without restriction.

### Desirable skills:

- Working in a team of developers on a firmware release cycle.
- Experience with motion control systems.
- Experience with Linux.
- Experience with real time and low latency systems, interface and communication protocol development for embedded PCs using real-time packages such as Simulink and / or dynamic modelling.
- Experience of Git Flow or similar software management workflow.

**About Q-Bot:**

Q-Bot is revolutionising the construction industry with robotics, digital tools and AI to transform archaic processes and enable new services for the inspection maintenance and upgrade of buildings. Q-Bot’s mission is to be able to measure and improve the health of buildings without the cost and disruption of traditional methods.

The company has commercialised a highly innovative method of applying under floor insulation using a [robotic device](#) and has a number of new services in development. As a result of this work Q-Bot has developed a number of exciting robotic and AI technologies which include robotic vehicles, digital manufacturing and 3D printing, control routines for autonomous localisation and navigation, 3D mapping of environments with automatic categorisation of features, as well as tools to manage the installation process and data collected.

The company has a growing team of 30 employees in offices in London and Newcastle. Q-Bot has state of the art equipment, including an in-house pick and place machine and 3-axis CNC milling machine. Q-Bot is run by an experienced management team with an entrepreneurial track record, project management expertise and unique blend of robotics and building know how. The company’s employees are a unique blend of engineers with Masters and PhDs in Science or Engineering and professionals with decades of practical experience in the construction sector.

Q-Bot is an equal opportunities employer and welcome applications from all suitably qualified persons regardless of their race, sex, disability, religion, belief, sexual orientation, or age.

Please apply to: [future@q-bot.co](mailto:future@q-bot.co) with a covering letter and CV.

