

Robert Lowe

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.... overview

I am a highly motivated Senior Development Engineer with a passion for innovation and quality engineering. With 17 years of experience in the electronics industry and a solid record of achievement, I possess excellent interpersonal, communication and analytical skills with commercial awareness and the ability to make and influence decisions. I enjoy being a key part of a successful and productive team and thrive in pressurised and challenging working environments. I am highly dependable and adaptable to change.

.... skills and strengths

- Embedded C coding with structured, readable, maintainable, efficient outcomes.
- Analogue, digital and microcontroller hardware design.
- PCB design for high-speed, signal integrity and EMC.
- IP network design and configuration skills.
- Excellent communication, problem solving and analytical skills.

.... employment history

Static Systems Group Plc., an ISO9001 company, is a specialist in the design, manufacture, installation, project management and maintenance of communication and fire detection systems for healthcare establishments, custodial, commercial and public buildings, employing around 200 people. I joined the company in 2002 and have progressed to Senior Development Engineer through dedication and professionalism.

Static Systems Group Plc. SENIOR DEVELOPMENT ENGINEER - October 2017 – Present

I was promoted in recognition of the strategy and leadership qualities demonstrated throughout daily tasks and engineering projects. Most notably, my work in design and implementation of hardware, software and system communications of a new flagship end-to-end IP nurse call system, that would also provide the core platform for future systems. I took a technical lead working with the Development, Technical Services and Project teams to deliver the project on time and to specification in pressurised circumstances. This role is as described for the Development Engineer role plus responsibility for leading engineering tasks for assigned projects. Also responsible for managing Development Technicians' workloads and PCB CAD workload, assigning internal or external resource as necessary.

Static Systems Group Plc. DEVELOPMENT ENGINEER - June 2013 – October 2017

I was promoted having shown strong technical abilities, versatility and an aptitude for learning quickly, through completing engineer level projects during technician role. Responsible for development of hardware and embedded software for a variety of time-critical applications using various technologies and protocols, including Ethernet, TCP/IP (LWIP), LonWorks, I2C, SPI, ADC, DAC, DMA, USART, USB, RS232/485, SD Card, FAT file system.

- Design and implementation of embedded C software/firmware for 8 to 32-bit PIC and ARM microcontrollers including device drivers, bootloaders, command line interface, configuration management.
- Porting Neuron C (Echelon LonWorks) code for use with ARM cortex M3 microcontrollers.
- Design of digital and analogue circuits including embedded microcontroller designs (plus schematic capture).
- PCB design, applying techniques for high-speed, signal integrity and EMC, using Altium Designer and Pads.
- Design for EMC and LVD, Design for test, Design for volume production.
- Evaluation and re-engineering of existing problematic hardware & embedded software designs.
- System design utilising various communication protocols and technologies.
- Proprietary communication protocol design and implementation.
- Cost analysis and value engineering.
- Develop requirement and technical specifications.
- LAN topology design for large-scale networks.
- Update Development department processes to maximise efficiency and quality of outcomes.
- Collaborate with mechanical team to produce mutually agreeable outcomes using 3D modelling.
- Progress projects from conception to launch and oversee introduction on site.
- Train Development Technicians in all aspects of role defined below.

...: employment history continued

Static Systems Group Plc. DEVELOPMENT TECHNICIAN - Dec 2007 – June 2013

Approached by the Development Manager for a 6 month secondment, later made permanent. This role was predominantly PCB design and layout ranging from simple single layer thru-hole boards to complex, multi-layer, split/mixed plane, surface-mount designs using Mentor Graphics PADS and Altium Designer software. Experienced with a wide range of technologies including analogue, digital, microcontroller, DC-DC converters, power supply.

- PCB design, adhering to component manufacturer guidelines, industry standard techniques, good practices and EMC considerations to achieve required criteria.
- Creating all PCB documentation and PCB manufacturing data including Gerber data.
- Liaising with PCB manufacturers and suppliers to ensure quality, reliability, and cost effectiveness.
- Generating data and documentation for in-house build of printed circuit modules (BOM, routes, pick & place).
- Administrator of parts library, including creation of circuit symbols and PCB decals.
- Prototype building and validation for various applications.
- Overseeing and supporting surface mount machines and operatives.
- Writing scripts for interpreting CAD outputs for production machines and business software.

Static Systems Group Plc. APPLICATIONS ENGINEER- TECHNICAL SERVICES - July 2005 – Dec 2007

Permanent placement following completion of apprenticeship. Role involved providing support for all products including Fire Alarm, Nurse Call, Cell Call, General Alarm and VoIP systems. Responsibilities included:

- Providing technical support for products to internal and external staff, customers and engineers.
- Writing technical documentation including installation manuals, user guides and data sheets.
- Metalwork design for specific applications (including CAD design).

Static Systems Group Plc. APPRENTICE - July 2002 – July 2005

3-year modern apprenticeship program which involved time spent in each department including production, test, commissioning, systems engineering, technical services, sales, plus others.

...: education and qualifications

Oxford University Department for Continued Education – 2019

Advanced PCB Design for EMI and Signal Integrity, Applying Practical EMI Design

Birmingham City University (BCU) Technology & Innovation Centre (TIC) – 2005 - 2008

Bsc (Hons) Computing and Electronics – Part Time - **Passed with First Class Honours**

Modules include: Embedded Systems, Software Engineering, Digital Electronics, Networking (CCNA), Data Structures and Algorithms. Cisco Certification: CCNA 3 & 4

Mercia Management - 2003 - 2006

Advanced Modern Apprenticeship - Static Systems Group

The AMA Framework included: NVQ PEO Level 2, NVQ Level 3 – Technical Services, Key-skills Level 3 – Application of Number, Information & Communication Technology, Communication, Working with Others, Improving Own Learning and Performance.

Stourbridge College - 2000 - 2004

Higher National Certificate Electronics – **Pass with Distinction**

National Diploma Electronics – **Pass with Distinction**

City and Guilds Computer Aided Design – Level 2

Dormston School, Sedgley - September 1995 – June 2000

GNVQ IT Intermediate

Pass with Distinction

GCSE'S

Mathematics

Grade

A*

Science (Double Award)

AA

English Language / Literature

B/B

Business Studies

B

GCSE'S

Systems & Control

Grade

A

German

A

R.E.

A

...: additional information

- Hobbies include cycling, photography and smart home automation.
- Full, clean driving licence.