Job Specification

Position	Product Development Engineer
Reporting to	Product Development Manager
The Company	Brigade Electronics, established in 1976, is at the pinnacle of commercial vehicle and mobile plant safety. A founder and innovator of sensing and monitoring systems that have helped save countless lives across the globe for over forty years. Whilst our portfolio can be emulated, our commitment to vehicle safety, our reliable, trusted products and our dedicated team of experts, cannot. We invest in people as well as technology. Everyone in the Brigade family understands the life-changing significance of the products and service we provide and the importance of outstanding systems that work in the most demanding of situations. The Brigade Group organisation is based in the UK and has subsidiary companies in the USA, Canada, Germany, France, Italy, The Netherlands and Poland, and selling in to over 80 countries world-wide via our National Distributor network.
Purpose of Role	This Product Development Engineer position will be mainly focused on the development of Brigade's core commercial vehicle safety and efficiency product range with a strong bias toward electronic engineering. The candidate will need basic knowledge of the technologies behind these products with good knowledge of the associated engineering principles. The purpose of the role in the Research & Development and Technology Department is to provide both product development and project management capability and assist the Product Development Team in upgrades and new product design resulting in the development & verification of Brigade's Product portfolio. This position will be predominantly at product level, requiring good understanding of defining and managing requirements, electronic and mechanical design, product verification and validation and with an appreciation for software development. The role requires the utilisation of cutting-edge technologies and engineering methods keeping Brigade at the forefront of technology and enabling Brigade to better manage and control its intellectual properties, whilst enhancing its cost effectiveness. The successful candidate will also be required to support the Quality team and Applications team in adapting current products for specific customer demands. The role will be primarily supplier-facing, managing multiple suppliers and manufacturers in both high and low-cost countries, overcoming cultural and language barriers to deliver new product in time for market. The position also extends to supporting our customers as needed. The applicant will ideally have knowledge of automotive electronics design standards and quality control principles which are key to ensuring Brigade's product quality standards are met, however on-the-job induction and training will be provided. The ideal candidate will be required to have a proactive approach promoting Brigade's business ideals and customer & supplier relations while enhancing the Engineering team's technical knowledge.

Key Responsibilities	**Functional**
	• Lead and manage product development throughout the product lifecycle
	• Supplier liaison and management
	• Requirements and engineering specification creation
	• Product development and design for manufacturing
	• Product verification and validation, both in-house and co-ordination of external resources
	• Preparation of detailed component technical drawings, documentation and user manuals
	• Aid the customers, sales and marketing on technical solutions and product support
	Technology
	• LCD display and Camera development technologies and principles
	• Video and audio processing & interfaces
	• Digital video & audio recording
	• Object Detection systems based on radar, ultrasonic and camera imaging
	• Acoustic alarms
	• Analogue and digital circuit design and development
	• Micro & digital signal processing systems
	• Digital communication protocols e. g. CAN, I2C, SPI, RS232 or similar
	• Software/ hardware integration and software engineering awareness
	• Functional level troubleshooting and product fault finding down to PCB level

Person Specification

Essential	Desirable
Education & Training	
1. Bachelor of Engineering in Electronics product development or similar alternative educational background combined with solid professional experience (**mandatory**) 2. 5-6 GCSE's at Grade B or above including Maths, Science (Physics) and English 3. High level of numeracy and literacy 4. Above average computer literacy	Master of Engineering in Electronic product development or similar
Experience and Skills	
1. 3 years Industry practical experience with electronics product development (**mandatory**) 2. Able to demonstrate co-ordination skills 3. Attention to detail is critical 4. Knowledge of analogue and digital electronics including micro processing, DSP, video signal processing 5. Awareness of software design, development or testing 6. Knowledge of camera, optics, acoustics, LCD's and digital recording technologies	1. More than 3 years' experience and knowledge in LCD, camera, optics, acoustics and digital recording technology within the automotive product development field. 2. Basic embedded software skills (C, C++ or similar) 3. Basic scripting skills (Python or similar) 4. Knowledgeable of modern

7. Computer application skills: - Microsoft 365 Suite - Ele. & mech. CAD development tools	automotive electronic architecture communication systems 5. Genuine interest in modern technology preferably with in the automotive industry 6. Computer application skills: AutoCAD 2D, electronic circuit design/simulation or similar engineering software packages
Personality and Motivation 1. Practical aptitude with methodical approach to detail 2. Self-motivated and takes full responsibility for the quality of own work 3. Flexibility to multi-task 4. Resourceful to provide technical support 5. Able to work to deadlines 6. Eager to learn 7. Natural respect for company and colleagues	
Interpersonal Skills 1. Team working, and co-operation with all colleagues 2. Direct communication with suppliers especially from the Far East 3. Ensure that an excellent supplier / customer relationship is established and maintained at all times 4. Required to present a positive and professional image at all times 5. Helpful and approachable	Delivering excellent customer service
Communication & language skills 1. High level of communication skills with the ability to communicate effectively with customers, management and colleagues. 2. Clear spoken English is critical	2nd language conversant in Mandarin or Cantonese
Other requirements 1. Innate time manager 2. Flexibility to work beyond normal business hours when required 3. Driving license (manual) to drive in the UK	

Employee Signature: _____

Date: _____