

Electronics Engineer

Position Description

Employment Type:	Full Time
Term:	Permanent
Group:	Engineering
Band:	Band 2 to 5, commensurate with experience and role
Location:	QuantX Labs, Lot Fourteen, Level 2 Space Lab, Frome Road, Adelaide
Reports To:	Electronics Engineering Team Lead
Direct Reports:	None

Position Overview

At QuantX Labs, you'll be an integral part of an emerging, world-leading deep-tech product company with a strong and growing pipeline of work across Space, Defence and Commercial sectors. As a small, high impact team, QuantX Labs offers the opportunity to contribute directly to significant and globally relevant products, where you make impact on sovereign capability and technologies that matters on a global stage.

You will play a hands on role in the development and delivery of next generation quantum and precision measurement products, working with cutting edge technology from concept through to product and deployment. This is a rare opportunity to collaborate closely with internationally recognised experts, and to see your efforts translated into advanced products used by global customers at the forefront of innovation.

As an Electronics Engineer, you will play a key role in the design, development, and production of our QuantX products. Working within a multidisciplinary team environment, the role focuses on leading and supporting the electronics design and integration of products throughout the full product lifecycle, ensuring the effective realisation of electronics functionality and performance.

Duties and Responsibilities

Electronics Engineering	<p>The following technical duties are expected of the role, appropriate to the employee's role seniority and experience:</p> <ul style="list-style-type: none"> • Apply electronic engineering principles across the product development lifecycle • Translate system requirements into electronics requirements • Create schematics and PCB layouts using CAD tools • Design and analyse analogue and digital electronics circuits • Perform electronic simulation and modelling to validate designs and support informed trade studies • Select components considering performance, reliability, environmental limits, and lifecycle risks
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	<ul style="list-style-type: none"> • Produce comprehensive design, fabrication, and manufacturer documentation supporting build and verification activities • Design electronics for manufacturability, assembly, and test in collaboration with production and suppliers • Plan and execute prototyping, hands-on assembly, bring-up, and debugging activities. • Define and implement electronic test automation, validation procedures, and acceptance criteria • Manage BOMs, component changes, obsolescence, and supply chain engagement activities • Author and maintain quality technical documentation • Define and review cable assemblies and electrical interfaces • Support configuration management through ECNs, concessions, deviations, and non-conformance resolution • Perform incoming parts inspection and support quality assurance and corrective action processes • Lead and support electronics design reviews
Other Assigned Duties	<ul style="list-style-type: none"> • Contribute to estimation, scheduling, and resource planning for technical work • Self manage work and effectively communicate status with stakeholders • Identify electronics technical risks and develop mitigation strategies • Engage with customers and suppliers to clarify technical needs and manage delivery • Provide technical expertise and advice in support of business activities • Technically lead and support execution of projects • Mentor, guide and support the development of team members • Contribute towards business winning and customer success activities • Comply with all company policies, procedures, and governance requirements, including safety, security, quality, and confidentiality obligations • Uphold the organisation’s values, ethical standards, and commitment to excellence • Other reasonable duties as assigned

The responsibilities as specified above may be altered in accordance with the changing requirements of the position.

Experience and Skills

Experience	<ul style="list-style-type: none"> • Understanding of electronics engineering design and analysis engineering principles across the full lifecycle, applied to the product development and production domain • Ability to analyse complex systems and derive electronics requirements • Working cross functionally with technical teams, including physics, software, electronics, mechanical, and production teams, to ensure cohesive product development and integration • Knowledge in reading, understanding, and writing code (e.g., C, Python, or similar) ideally with exposure to STM32 and Xilinx FPGA (gateway) • Use laboratory equipment (oscilloscopes, power supplies, electronic loads, spectrum analysers, etc.) for subsystem validation or troubleshooting. • Technical leadership and delivery of product development and production projects
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	<ul style="list-style-type: none"> • Technical background in product development, analysis and production • Knowledge of systems engineering principles
Skills	<ul style="list-style-type: none"> • Professional integrity, accountability, and attention to detail • Effectively work with appropriate autonomy, escalating issues where required • Effectively adapt to evolving product requirements, product development environments • Problem solving and decision making, balancing performance, risk, schedule and cost • Planning, work management and prioritisation of duties • Clear communication of technical concepts to both technical and non-technical stakeholders • Written skills for producing clear and concise technical documentation • Effective collaboration and knowledge sharing across teams • Commitment to quality, safety, and continuous improvement
Other	<ul style="list-style-type: none"> • Bachelor's degree in an Electronics Engineering or other related field