A. Position Details

Position title:	Software Tools Engineer		
Department/Unit:	Software Tools Team/Product Development	**Location:**	Lindfield, NSW
Employment status:	Full time, Permanent	**Position No.:**	
Core hours of work:	09:00 – 17:00* Monday to Friday. *May be required to work reasonable additional hours outside the above hours of work to meet the requirements of the position.'*		
Approval Date:	22 August 2018		
Reporting relationships: Reports to (primary): Reports to (secondary): Direct reports: Team:	Software Tools Engineer/Software Manager n/a Nil Software Tools (H/C 3)		
Key relationships: Internal: External:	Other teams & stakeholders Suppliers, customers		
Primary purpose of the position:	Design, develop, test, and maintain tools to required specifications		
Key challenges of the position:	Needs flexibility and ability to think "outside the box", to come up with innovative solutions to unusual problems.		

B. Key Responsibilities

- Develop drivers (ROS) and tools (calibration, static analysis, etc) and improve existing ones (customer facing application, BarajaViewer)
- Develop (automated) tests
- Work with systems, production, quality management, and customer support teams to resolve technical issues
- Guide technicians and junior engineers
- Present design alternatives and experimental results to the product development team for review, and review other team member's designs

Key responsibility area	Major activities	Outcomes/Measures
1. Drivers and Tools 50% time/effort	Simulate, prototype, test, and document new code Work with other teams within product development to resolve cross-discipline design trade-offs	Design risks identified and mitigated where appropriate Sufficient evidence gathered to make design decisions Best effort made to design a great product regardless of difficulty New design concepts documented according to company standard
2. Testing 20% time/effort	Create (automated) tests for the different levels of test: • Unit tests • Integration tests • System tests Improve test systems and processes	Ensure a sufficient level of test coverage for all code New hardware and/or frameworks for improved testing
3. Resolve technical issues 20% time/effort	Work with field application engineers, production, and systems engineering teams to identify the root cause of problems Devise method of containing/ resolving issues in the form of process or design changes	Develop a solution, communicate any changes in the process and/or design to the production team
4. Guide technicians and junior engineers 5% time/effort	Teaching/coaching junior engineers in good design practices Developing processes with technicians Fostering a productive and professional work environment	Improve the standard of engineering and manufacturing within the company
5. Present designs for review 5% time/effort	Evaluate designs against design specifications and standards Provide recommendations and/or design alternatives	Communicate design pros & cons against requirements Catch and communicate issues in other people's designs

C. Person Specification

Knowledge, skills, abilities, experience, qualifications	Essential	Desirable
Bachelor's or higher in Computer Science, Software/Electrical/Electronic engineering or equivalent	☒	☐
Experience developing C++ code	☒	☐
Experience creating GUI applications (Windows, QT, GTK+ or other)	☒	☐
Experience developing Python scripts	☒	☐
Experience with Jenkins build/test automation	☒	☐

Experience using GIT or another version control tool	☒	☐
Passionate about software engineering	☒	☐
Great communication skills, oral and written	☒	☐
Enthusiasm and motivation to take ownership of a project	☒	☐
Professional, customer-focussed attitude	☒	☐
Experience with Labview	☐	☒
Experience using Linux	☐	☒
Experience creating and configuring virtual machines	☐	☒
Familiarity with pointcloud libraries (PCL)	☐	☒
Experience with product development in a regulated environment (medical, automotive, defence, rail)	☐	☒
	☐	☐

D. Acknowledgements

Manager	Name:		Signature:		Date
Incumbent	Name:		Signature:		Date