MAPS

Management and **A**ssessment of **P**roject **S**afety

QUT Science & Engineering Faculty

Project Details

Project title*	*Honours Project - Raspberry Pi 4x4 Camera Array*
Start date*	*29 February 2016*
Estimated end date*	*18 November 2016*
Review date*	*25 July 2016*
Project #	*5264*
Unit code (if applicable)	
Unit coordinator	*Maolin Tang*

Intellectual property applies ☐

Intellectual property applies to QUT Intellectual Property Policy

- Patents for new or improved products or processes
- Trademarks for letters, words, phrases, sounds, smells, shapes, logos, pictures, aspects of packaging or a combination of these, to distinguish the goods and services of one trader from those of another
- Designs for the shape or appearance of manufactured goods
- Copyright for original material in literary, artistic, dramatic or musical works, films, broadcasts, multimedia and computer programs
- Circuit layout rights for three-dimensional configuration of electronic circuits in integrated circuit products or layout designs
- Plant breeders'' rights for new plant varieties
- Confidentiality/trade secrets including know-how and other confidential or proprietary information
- Inventions

Approvers & Participants

Project owner

Name*	*Ashley Stewart*	Student/staff ID*	*n8610754*
School/portfolio*	*Electrical Engineering and compute*	QUT Email address*	*aw.stewart@connect.qut.edu.au*
Position*	*U/G Project Student*	If other, please specify	
Contact (work)		Contact (alternative)	*0414 995 360*
Campus	*Gardens Point*	Building	*GP S-11 (1150-31)*

Workflow approvers

SUPERVISOR

Name*	*Donald Dansereau*	Email*	*donald.dansereau@qut.edu.au*
Title	*Postdoctoral Research Fellow, Robotics &*	Faculty	*Science and Engineering Faculty*
Location	*Gardens Point, S Block Level 11 1130*	Contact (work)	*3138 2285*
		Contact (mob)	

Is Head of School, Executive Dean, Faculty Manager or Institute Director approval required? **Yes** ☐ **No** ☑

Technical staff/area managers/other consultants/safety personnel

Consultation is a requirement for risk management under the Work Health and Safety Act 2011 [Part 5, s 49].

Please contact your consultant *prior* to nominating them on this form.

A consultant could be an area manager or any other experienced personnel who are able to identify risks and provide advice in relation to your project or the area of your work (note: links are for Staff level access only):

Area	Consultant	Email
SEF Vehicles	Veronica O''Sullivan	*v.osullivan@qut.edu.au*
SEF Labs	Technical staff/laboratory custodian	
Banyo	Frank De Bruyne	*frank.debruyne@qut.edu.au*
SERF	Juan Cooper	*juan.cooper@qut.edu.au*

ARCAA	Andrew Keir Tyaka Ringrose	*a.keir@qut.edu.au* *tyaka.ringrose@qut.edu.au*
Health, Safety & Environment Advisors; Health & Safety Representatives; Laser or Radiation Safety Advisors; SEF Health, Safety and Environment Team		Safety Personnel (staff only)

martinsc	*Steven Martin*	*steven.martin@qut.edu.au*	*Research Engineer*

Will you be working at any of the following?
- ☐ Out of campus facilities (e.g., Banyo/SERF)
- ☐ Laboratories or workshops within QUT

Other project participants

Workplaces associated with the task/project:

Please nominate **all** workplaces you will be working in.

Workplace name: *Robotics and Computer Vision*
Campus: *Gardens Point*
Building/Level: *S* / *11*
Room: *SIFR (1150-31)*
Location phone:
Biosafety classification: *NA (not applicable)*

Additional information
(e.g., off-campus location, access or other instructions)

Working at my workstation 1150-31, but potentially performing some soldering and circuitry work in Robot Workroom 2 (1145).

Processes

Process description/protocol*

Provide a full description of your processes. Include details of the exact nature of work and of any steps performed. Attach copies of Work Instructions (Standard Operating Procedures), sketch design permits, authorisations, or other relevant documents:

Project work will involve writing software to be run on a workstation PC, as well as the array of 16 Raspberry Pis. The Raspberry Pis are supplied power through GPIO pins, which are connected to veroboard and an appropriate power supply. The Raspberry Pis and power setup are not exposed while they are inside the array"s case. However, there is potentially going to be some redesign and reconstruction of the power setup and case, with assistance from Steve Martin. This may involve soldering and work with electrical circuits.

How many people will be potentially exposed to the risks and hazards posed by your activities? *3*

Processes that will require additional documents:

Does your work involve		*Yes*	*No*
Work with energised electrical equipment?	Applies to electrical work with exposed energised electrical circuits above 50V AC or 120V DC. *Refer to QUT"s Electrical Safety Procedure and complete and attach the WI - Work on Energised Electrical Equipment . Use the General Risk Form to address relevant hazards.*	☑	☐
Laboratory work?	The following QUT ELMO Modules trainings must be completed by all staff and students who are required to work in a laboratory 1. Health, Safety & Environment Inductionenvironment: NB: Undergraduates must have completed the Undergraduate	☑	☐

	2. Laboratory Safety 3. General Evacuation Instruction Attach completed ELMO Certificates and list these courses in the Training section of the General Risk Form.	Health & Safety Induction and may also be required to complete ELMOs. NB: Undergraduates **must** have completed the and may also be required to complete ELMOs.	
Chemicals (including nanomaterials)?	All chemicals (starting materials, solvents, gases, etc.) that will be used must be identified and assessed (including consideration for storage, use, first aid, spill control, and waste).		☐ ☑
Biological materials?	All biological substances (plant, human or animal sources, e.g., plant or animal tissues and fluids, micro-organisms, insects, GMO material, tissue culture, cell lines, soil and soil products, etc.) used in the workplace must be identified and assessed.		☐ ☑
Radioactive sources?	Includes radiological sources, radioisotopes, radiation apparatus, X-rays and/or nuclear material.		☐ ☑
Working with Class 3B, 3R or 4 lasers?	Applies when working with lasers that produce an external beam with the potential to cause injury (Note: do not tick yes for lasers that are enclosed within equipment that have all manufacturer''s safety interlocks and controls in place). *For Class 1 and Class 2 lasers, please address any risks on the General Risk Form.*		☐ ☑
Human and/or animal research that requires ethics approval?	Applies to work involving human and/or animal research (including use of QUT student/staff information, participation in surveys, interviews, or focus groups). See Do I Need Human Research Ethics Approval? and Do I Need Animal Research Ethics Approval?, and if unsure, contact QUT Research Ethics and Integrity (OREI).		☐ ☑
Field, outdoor, off-campus or overseas activities?	Applies to work involving activities such as site visits, field trips, roaming class excursions, overseas travel, exhibitions, displays etc.		☐ ☑
Remote or isolated work?	Applies when you are isolated from assistance from others (including medical, emergency and rescue assistance) due to the location (e.g., field work), time (e.g., outside of normal business hours) and/or nature of your work or study (e.g., working alone).		☐ ☑
Hazardous manual tasks?	• Involve repetitive or sustained forces • Take almost all or a lot of your strength to do (e.g., heavy items, high forces) • Use vibrating tools or equipment for longer than recommended in the manufacturer''s guidance • Involve repetitive tasks (with short task cycles)* • Require sustained or awkward postures*	Applies to tasks that: (* if exposed continuously for 30mins or more or for 2hrs/day cumulatively).	☐ ☑
Exposure to high noise levels?	• The noise in the workplace seems very loud; • You have to raise your voice to be heard or have difficulty communicating when close to the noise source; • You experience ringing in the ears or blurred hearing after work; • The equipment has noise emission information that indicates noise above 85dB;	Applies where:	☐ ☑
Working at heights?	Applies to work where: • A potential exists to fall (including working off ladders, scaffolding and platforms, on high plant structures, and on roofs); • Work could be carried out in the vicinity of an unprotected edge; • Falling objects (tools, equipment, etc.) could cause injury or damage (to people below or equipment/structures).		☐ ☑
Comments			

General Risk Form

This form should be used to capture any **hazards and risks not identified and appropriately addressed above**.

Hazards

HAZARD

Description

Potentially exposed wires and power equipment for Raspberry Pi array.

Details of hazard/Associated risks

Risk of electrical shock

Control measures

Substitution

Substitution

Details:

Implement alternative power solution.

Isolation

Barriers

Details:

Exposed wires and electrical equipment contained within case.

Comments on control measures

LIKELIHOOD, CONSEQUENCES & RISK

Likelihood	*Unlikely - Could occur at some time*
Consequences	*Minor - First aid treatment required, some environmental and/or financial impact*
Risk level	*Low- - Manage through routine procedures*

GENERAL emergency procedures for accident response

Please describe all first aid and accident response procedures in detail, if not already fully described above (e.g., include gas sensors, emergency stops, first aid and fire fighting equipment).

Name of local area first aid officer:

Location of first aid kit:

EMERGENCY CONTACTS

QUT		External	
QUT Security	3138 5585	Police, Fire, Ambulance	000 (112 mobile)
Freecall	1800 065 585	State Emergency Service (SES)	132 500
Emergencies	3138 8888	Poisons Information Centre	131 126

GENERAL training

Staff/Student involved	Training program	How was an assessment of competency obtained?	Date completed
Ashley Stewart	*Health, Safety and Environment Indu*	*Online*	*09/03/2016*
Ashley Stewart	*General Evacuation Training Certifica*	*Online*	*09/03/2016*

Details

Authorisation

Acknowledgment & Approval

By checking the acknowledgment box, you confirm that you have read and understood all the information mentioned on this project and will follow all practices required in order to ensure your safety.

A private dialog field is provided for comments relating to the approval process. Please use this as required.

ID	Name	Comment	Date	Project is OK?
		PROJECT OWNER		**Yes**
n8610754	Ashley Stewart		04/04/16	☑
		TECHNICAL STAFF / AREA MANAGERS / OTHER CONSULTANTS		**Yes No**
martinsc	Steven Martin		04/04/16	☑ ☐
		SUPERVISOR		**Yes No**
danserea	Donald Dansereau		04/04/16	☑ ☐

Ready to Submit?

~~QUT policy requires that everyone who has signed a risk assessment be notified of any changes to that risk assessment. After submission,~~ hitting **Save** or **Submit** will email all personnel who have signed/approved the project.

Review

Review

Have any risks changed? Are controls working as expected? Have any advances or procedural changes allowed for removal or addition of a hazard?

Name: Ashley Stewart

Date:

Comments:

Next review due:

25 July 2016

Audits