##

**INNOVATION LAB**

## Scope

This document is intended to estimate potential human health and environmental risks posed by current and potential future conditions State Library of Queensland (State Library) Fabrication Lab Facility. The risk assessment describes the approach to the risk assessment and facilitates appropriate ways to evaluate current and future risks.

Refer to the **Safe Operating Procedures** (**SOP**) for information regarding the safe usage and check list for this equipment.

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| Facility Description: **Innovation Lab**  |
| Leaders:  **Daniel Flood** |
| Locations:  **Level 1, The Edge Building** |
| Assessment Date: **26/08/2022** | Review Date:  |

*N.B. This assessment can remain active for up to 5 years. However, an annual monitoring and review process should be undertaken and recorded – refer to the last page of this document.*

*Below are the details of the particular concerns attributed to this operational space categorised by their assessed inherent risk levels (refer to the Equipment/Process Risk Matrix). The actions required for approval for each level of inherent risk are mandatory.*

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| **Inherent Risk Level** | **Details of Processes** |  **Action Required/Approval** |
| 🗹 | **Moderate** |

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| * When laser-cutting and/or engraving materials that exceed the ability of the Trotec Atmos filter units to extract VOCs from fumes prior to discharging air into room
* When positioning desks and power boards in locations that facilitate cable connections to GPOs located in floor traps and/or perimeter walls
* When offering staff and public access to desks, laptop computers, and other items with surfaces that may harbour viruses that cause Covid, influenza, colds, or other illnesses
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 | * Document controls in planning documents and/or complete this *Plant Risk Assessment.*
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Minimum standards

| Minimum qualifications and experience*Listed below are the general “minimum” recommendations for the management of this Plant/Equipment.*🗹 *Indicate the minimum management controls.*  |
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|  X State Library staff member with experience, ability and competency in the safe use of this plant/equipment  *(indicate one or more of the following):*X Specific knowledge of the safe and correct use of this plant/equipmentX Experience (i.e. previous involvement and familiarity) in the safe use of this plant/equipmentX Demonstrated expertise, ability and competency with this plant/equipment[ ]  Documented qualifications relating to the use of this plant/equipment (e.g. in a staff profile) **OR** X A Contractor, other than a State Library staff member, with:X Expertise in the safe and correct use of this plant/equipment[ ]  Documented qualifications that demonstrate experience, ability and competency in the safe use of this plant/equipment. |
|  [ ]  Will any Edge staff require initial and/or ongoing training for the safe use of this plant/equipment?If yes, give details:  |
|  X Will Members be operating this plant/equipment?If yes, state how student use of this plant/equipment will be managed (e.g. Workshop Safety Induction)Give details:  **Members will use lasers under staff supervision only (refer to SOP).**  |
| Further information if required:  **Staff only will set up all tables and power boards in locations that ensure no trip hazards are created. At conclusion of (or just prior to commencing) public workshop or open lab, staff wearing protective gloves to treat all hard surfaces of desks and laptop computers with disinfectant wipes with a sufficient contact/dwell time to kill pathogens.** |
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| Minimum control requirements  |
| Supporting documentation available in the school on this plant/equipment includes: X Operators ManualX Safe Operating Procedures (SOP)X Equipment Maintenance Records (EMR)[ ]  A process for recording member safety induction e.g. Member induction register [ ]  A process for recording staff training and experience. E.g. Staff induction register |
|  X All guards are in place and in good working order for this plant/equipment  |
|  [ ]  Safe Working Zones are defined for this plant/equipment (e.g., yellow lines and/or appropriate signage)  |
|  X Suitable personal protective equipment (PPE) is available to be used by all operators |
|  X This plant/equipment complies with relevant safety standards |
| Further information if required: **Members will only be permitted to shift table or power board locations under staff guidance where necessary. The operation of Atmos air filters is automated such that lasers cannot proceed with cutting/engraving unless the filters are also operating. An air quality monitor will be used to quantify room VOC levels in relation to the Australian Air Quality Index (AQI). When readings exceed recommended levels laser operation will be suspended until levels return to acceptable concentrations.** |

Hazards and control measures

*Listed below are indicative hazards/risks and suggested control measures. These are by no means exhaustive lists. Add details of any other hazards/risks or additional controls you intend to implement.*

🗹 *Indicate the control measures adopted. Detail their implementation and any additional controls required.*

| **Hazards/Risks** | **Hierarchy of Recommended** **Control Measures** | **Yes** | **No** | **Details of how this will be implemented***(and any additional controls)* |
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| **Exposure to Rotating****or Moving Parts:*** **Entanglement and**

**Entrapment**Could hair, clothing, ties, jewellery or other materials become entangled with moving parts of plant or materials in motion?* **Crushing & Pinching**

Could anyone be crushed or pinched due to falling, uncontrolled or unexpected movement of plant or its load tipping or rolling over, or contact with moving parts during testing, inspection or maintenance? | . |  |  |  |
|  | [ ]  | [x]  |  |
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|  | [ ]  | [x]  |  |
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| **Slips, Trips, Falls  and Abrasions:**Can anyone using the plant or in the vicinity of the plant, slip, trip or fall due to the working environment or other factors?e.g. Poor housekeeping, dust on floors, slippery or uneven work surfaces, power cables across work areas causing injuries and abrasions? | 1. Tables intended for placement and operation of computers and/or other equipment requiring cable connection to GPOs to be located against walls or over floor traps such that no trip hazards are created by electrical cables.
 | [x]  | [ ]  | **Staff to locate all tables and monitor any requests for repositioning received from members.** |
| **Environmental:*** **Noise**

Is it likely that the normal operation of this plant will produce excessive noise levels?* **Dust, Fumes and Vapours**

Is it likely there will be airborne dust particles, toxic fumes or volatile vapours produced and therefore be present in the workspace? | 1. All excessive noise is unlikely, equipment producing highest noise levels to be located as far as possible from the wall shared with the Recording Studio so as to minimise any impacts.
2. Atmos air filtration units set to automatically operate to capture dust, fumes, and VOCs generated by laser cutters/engravers.
3. Monitor VOC levels and suspend laser operation when concentrations exceed recommended levels.
 | [ ] [x]  | [x] [ ]  | **Any complaints received from Recording Studio users will be managed as they occur.****VOC levels to be regularly monitored by staff and operation of lasers temporarily suspended when levels exceed recommended concentrations.** |

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| **Electrical:**Can the operator be injured by electrical shock due to working near or contacting with damaged or poorly maintained live electrical conductors such as power outlets, extension leads, safety switches, starters and isolators or casual water on the floor near plant and machinery? |  |  |  |  |
|  | [ ]  | [x]  |  |
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| **Explosion and Fire:**As a consequence of using this particular item of plant and equipment, could anyone be injured by the release of stored energy triggered by volatile, explosive substances such as stored gasses, vapours or liquids? Could fire and explosion also result from a build-up of wood dust under the table saw, in the dust extraction system or in confined ceiling spaces?  |  | [ ]  | [x]  |  |
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| **Other Hazards/Risks** | **Additional Control Measures***These would relate to the specific student needs, locations and conditions in which you are conducting your activity.* |
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| **Risk of infection contracted from viral pathogens found on hard surfaces in Lab.** | **All hard surfaces to be sanitised either directly prior to or directly following workshops, open labs, and other gatherings in the space.** |

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| **Approval** |
| Submitted by: Steve Curran | Date: 26/08/2022 |
| **[x]**  | Approved as submitted. |
| **[ ]**  | Approved with the following condition/s:      |
| **[ ]**  | Not Approved for the following reason/s:      |
| By: Daniel Flood | Designation: Lead, Applied Creativity |
| Signed: | Date:  29/08/2022 |

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| Staff members involved in the use of this risk assessment & the associated plant & equipment: |
| * **Daniel Flood**
* **Mick Byrne**
* **Michelle Brown**
* **Sarah Winter**
* **Natalie Duncan**
* **Andrei Maberley**
* **Rozina Suliman**
*
 | *Signature:*  ……………………………….. *Date:* **16/09/2022***Signature:*  ……………………………….. *Date:* **16/09/2022***Signature:*  ……………………………….. *Date:* **16/09/2022***Signature:*  ……………………………….. *Date:* **16/09/2022***Signature:*  ……………………………….. *Date:* **16/09/2022***Signature:*  ……………………………….. *Date:* **16/09/2022***Signature:*  ……………………………….. *Date:* **16/09/2022***Signature:*  ……………………………….. *Date:*  |

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| **Monitoring and Review***This Plant & Equipment Risk Assessment is to be monitored and reviewed annually for a further four (4) years.* |

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| **Review 1:** | **Yes**  | **No** |
| * Are allocated risk levels and “Actions required” unchanged over the past 12 months?
* Are Minimum Standards and Recommended Control Measures unchanged over 12 months?
* Staffing details at this school have remained unchanged over the past 12 months?
 | [ ] [ ] [ ]  | [ ] [ ] [ ]  |
| If the responses are “NO” for any question, record current details here, and list all staff changes *(with signatures)* |
| Reviewed by:  | Designation:  |
| Signed: | Review Date :  |

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| **Review 2:** | **Yes**  | **No** |
| * Are allocated risk levels and “Actions required” unchanged over the past 12 months?
* Are Minimum Standards and Recommended Control Measures unchanged over 12 months?
* Staffing details have remained unchanged over the past 12 months?
 | [ ] [ ] [ ]  | [ ] [ ] [ ]  |
| If the responses are “NO” for any question, record current details here, and list all staff changes *(with signatures)* |
| Reviewed by:  | Designation:  |
| Signed: | Review Date :  |

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| **Review 3:** | **Yes**  | **No** |
| * Are allocated risk levels and “Actions required” unchanged over the past 12 months?
* Are Minimum Standards and Recommended Control Measures unchanged over 12 months?
* Staffing details have remained unchanged over the past 12 months?
 | [ ] [ ] [ ]  | [ ] [ ] [ ]  |
| If the responses are “NO” for any question, record current details here, and list all staff changes *(with signatures)* |
| Reviewed by:  | Designation:  |
| Signed: | Review Date :  |

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| **Review 4:** | **Yes**  | **No** |
| * Are allocated risk levels and “Actions required” unchanged over the past 12 months?
* Are Minimum Standards and Recommended Control Measures unchanged over 12 months?
* Staffing details have remained unchanged over the past 12 months?
 | [ ] [ ] [ ]  | [ ] [ ] [ ]  |
| If the responses are “NO” for any question, record current details here, and list all staff changes *(with signatures)* |
| Reviewed by:  | Designation:  |
| Signed: | Review Date :  |

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