

FABRICATION LAB

3D Printer

Registration Form and Disclaimer

Your Details

First Name

Last Name

State Library of Queensland
patron account username

Address

Email

Mobile

Other

You must sign up for a State Library of Queensland patron account as part of this induction with your email address specified above.

Are you 16 years of age or over? YES NO

Fabrication Lab Acknowledgement and Disclaimer:

By signing this registration form I,,
acknowledge and agree that:

1. I have completed the induction program conducted by the State Library, which is designed to provide me with information and training about the safe operation and use of equipment that will be available in The Edge Basement. I have been inducted in the following equipment today:
 - a. 3D Printer
2. I will only be allowed access to The Edge Basement facility and use of equipment upon completion of the induction program and after I have signed this registration form.

3. I understand that the State Library may charge a fee for me to use equipment in The Edge Basement and I must comply with the booking and payment conditions that apply from time to time.
4. I am responsible for ensuring that I always use equipment appropriately to ensure the safety of myself and other people.
5. I must not use the equipment in a way that creates a risk to my own safety or the safety of other people or that causes damages to any property.
6. I must comply with any directions or instructions given by State Library staff in relation to use of the equipment.
7. I must immediately notify State Library staff if I become aware of any safety issues in relation to the equipment, including any malfunctioning or damaged equipment.
8. My access to The Edge Basement and the equipment is subject to me continuing to act in a safe manner and to comply with directions given by State Library staff.
9. If I misuse the equipment, or do anything that creates a safety risk, then I may be asked to leave The Edge Basement and I will no longer be entitled to use the equipment.
10. I agree that my access to The Edge Basement and use of the equipment is entirely at my own risk and I will not make any claim against the State Library or its staff (including for negligence) to recover any loss, damage or injury that I sustain as a result of my attendance at the facility, use of equipment or use of any product that I make using the equipment.
11. I agree that the State Library and its staff will not be liable for any loss or damage that is caused to me or a third party (including by negligence) arising out of my attendance at the facility, use of equipment or use of any product that I make using the equipment.
12. I agree to indemnify the State Library and its staff against any claims or proceedings that may be made or brought against them as a result of my attendance at the facility, use of equipment or use of any product that I make using the equipment whether or not the claim or proceeding is due to the negligence of the State Library or its staff.
13. In relation to liability for breach of any term, condition, guarantee or warranty implied by law in connection with the supply of access to The Edge Basement or the equipment to me:

- a. if the State Library's liability may be lawfully excluded, then it is excluded; and
- b. if liability may not be lawfully excluded, but may be limited, it is limited at the option of the State Library to:
 - i. replacing the supplied goods, supplying equivalent goods or supplying the supplied services again;
 - ii. repairing the goods or paying the cost of having the goods repaired; and
 - iii. paying the cost of replacing the goods or of acquiring equivalent goods or of having the service supplied again.

14. The State Library does not intend to limit or exclude liability that cannot legally be limited or excluded and terms 10, 11, 12 and 13 above only apply to the extent permitted by law.

Signed

Date

Parental Consent

If the participant is less than 18 years of age, this section must be completed by their parent or guardian

By signing this registration form I, _____, acknowledge and agree that:







1. I am the parent or guardian of _____ ('my child').
2. I consent to my child participating in activities at The Edge Basement, including the use of equipment within that facility, and have satisfied myself as to the risks associated with those activities.
3. I have read all of the information contained in this form and agree to the terms outlined above on my own behalf and on behalf of my child.
4. I agree to pay to any fees associated with my child's use of The Edge Basement.
5. In the event of an accident or illness, I authorise State Library staff to obtain or administer any medical assistance or treatment that my child may reasonably require. I accept liability for all costs incurred in obtaining such medical assistance or treatment and undertake to reimburse the State Library the full amount of any costs incurred on my child's behalf.

Signed

Date

ACTIVITY 1 –KEY SAFETY TIPS FOR THE FABRICATION LAB

Draw a line to match the safety tip with its explanation

	EXPLANATION
 Wear the right safety gear	It's there for your protection
 Clean up as you go	It's easy to ask and you could prevent an injury
 Correctly use the right tool for the job	They protect your feet & help prevent slipping
 Always wear appropriate covered footwear	Most injuries come from misusing tools
 No kids under 12. Sorry!	There is hazardous equipment & substances used in the Fabrication Lab
 Ask questions if you have any doubts	Accidents happen in untidy spaces

NAME:

DATE:

The aim of The Edge Resource Inductions are to ensure that patrons are equipped with the practical skills and knowledge to safely access the range of tools available for public use in the Fabrication Lab.

In each of these inductions, an Edge facilitator will deliver training on the safe and appropriate use of equipment.

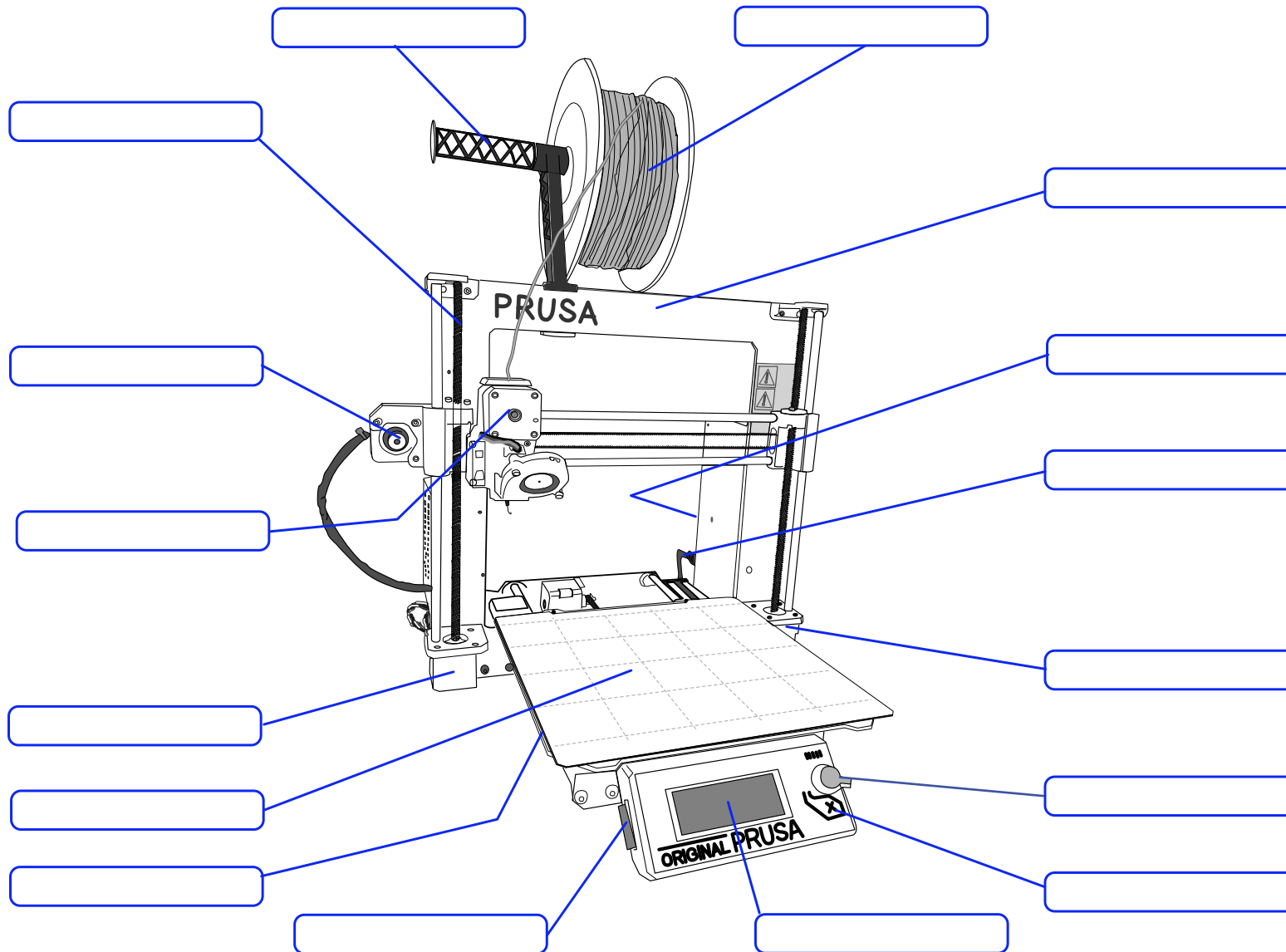
The following form serves as a record of your participation, and provides evidence to demonstrate your competent understanding and practical application of the training.

The assessment evidence collected in this induction will be in three forms: Written Assessment, Peer Assessment (Verbal), and Workshop Facilitator Observations.

If you require any extra assistance to complete this induction please inform your facilitator at the beginning of the session.

ACTIVITY 2 – IDENTIFY 3D PRINTER COMPONENTS

Using the list of components on the right, identify each part by writing it in the relevant box.

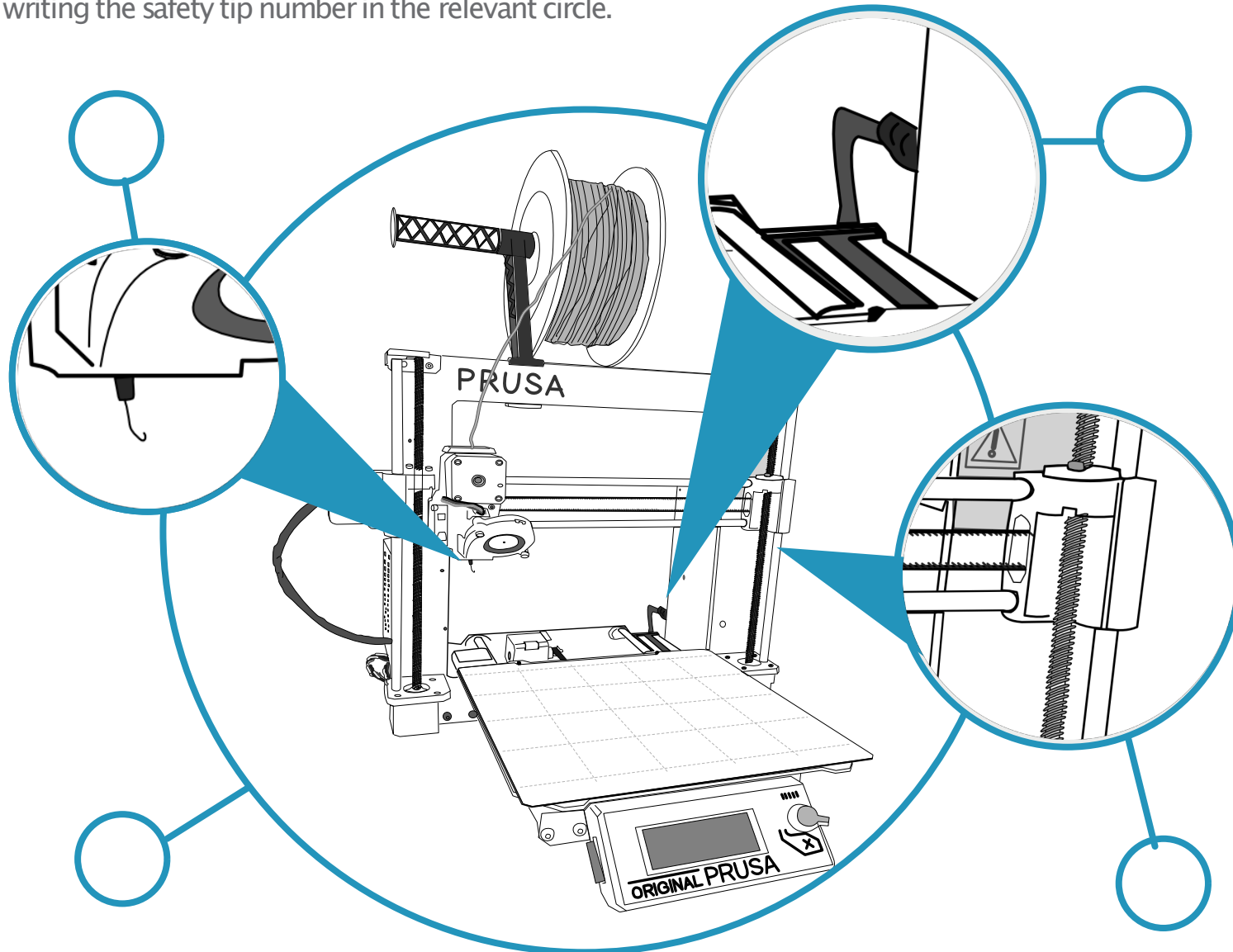


COMPONENTS


- LCD Panel
- AC Power Cord
- Z Axis Stepper Motor 2
- Control Knob
- Reset Button
- Flexible Steel Print Sheet
- Z Axis Stepper Motor 1
- Extruder Stepper Motor
- Filament
- X Axis Stepper Motor
- SD Card Slot
- Threaded Rod
- Heater Bed
- Filament Holder
- Printer Frame
- Power Switch


ACTIVITY 3 – IDENTIFY 3D PRINTER SAFETY/OPERATIONAL TIPS

Using the safety tips on the right, identify what component it relates to by writing the safety tip number in the relevant circle.




SAFETY/OPERATIONAL TIPS

① Crush Hazard! Moving parts don't stop for fingers 

② 250°C+ This will burn. Turn off & allow to cool before handling 

③ Risk of electric shock. Check the Test Tag is current. 

④ Some 3D filaments produce toxic fumes. Always use in a ventilated area. 

ACTIVITY 7 – 3D PRINTER WORKFLOW

We've identified four key stages in the 3D printing process. Each stage is listed below, with a number of consecutive steps. Put each step in the correct order, by placing a number in the corresponding circle.

1. GET THE 3D PRINTER READY

Check the 3D printer is extruding correctly

Switch on 3D Printer

Place print sheet on bed and preheat the bed and nozzle

Check the flexible steel print sheet is clean & oil free

2. PREPARE YOUR DESIGN FOR PRINTING

Orient, scale and place model for efficient printing

Slice your model and check you have enough time to print it

Design a model in CAD and export for printing

Select your Material speed and print quality

Export your Gcode onto the SD Card

Import the CAD model into the 3D Printing App (Slicer)

ACTIVITY 7 – 3D PRINTER WORKFLOW CONTINUED

3. PRINT YOUR MODEL

Monitor the print job

Navigate to the Gcode on the SD card and execute print

If the print is failing, abort the job

4. REMOVE YOUR JOB

Weigh, pay and takeaway

Clean up flexible print sheet ready for next use

Remove completed print from Flexible Steel Print sheet

PEER ASSESSMENT

I confirm that the observations of my peer showed active participation in this induction workshop and demonstrated a satisfactory understanding, including competent and safe use of the above tools.

Date

Peer Assessor

Peer Assessor Signature

FACILITATOR WORKSHOP OBSERVATION

I confirm that the observations made of the participant and active participation in this induction workshop demonstrated a satisfactory understand including competent and safe use of the 3D printer.

Date

Edge Facilitator

Facilitator Signature

PARTICIPANT DECLARATION

I declare the assessment above was my own individual work.

Date

Participant Signature