ANU MakerSpace @RSPE Basic Induction & User Agreement

Email: makerspace@anu.edu.au

Physics Education Centre,
Research School of Physics and Engineering,
Bld. 38, Science Rd.
The Australian National University,
Canberra ACT, 2601
Australia

1. Introduction

2. 10 MakerSpace Commandments

3. User Agreement:
   3.1. Culture
   3.2. Safety
   3.3. Additional Policies
1. Introduction

The ANU MakerSpace is a space within the Research School of Physics and Engineering (RSPE), located at Physics North in the Dept. of Quantum Science & Physics Education Centre. The MakerSpace is open to users between 8am-6pm weekdays. It is aimed at providing staff and students alike with a space to work on design and fabrication related to their education, research and hobbies. It is a place for collaboration, and open to all on campus. It embodies the maker culture of learning by doing.

The purpose of this document is to specify the framework and processes required for the safe operation and use of the MakerSpace. Use of specific equipment in the space will require additional induction.

Access to the MakerSpace is a privilege not a right. As a User, you agree to abide by the following. Abuse of these very reasonable conditions will result in revoked access.

2. The 10 MakerSpace Commandments

1. Always be curious. If unsure about ANYTHING, STOP and ask for help.
2. You are responsible for you, and the people around you.
3. Help others! Transferring your skills is half the fun of MakerSpace.
4. READ your Safe Operating Procedure for EVERY machine you use. They keep you safe but also provide tips and tricks.
6. Always wear closed toe shoes. You will be asked to leave if you are not.
7. Cut away from yourself.
8. Occupy only one machine at a time.
9. Clean up after yourself before you leave, at a level you’d be happy to eat off. Otherwise you will be the weekly meme.
10. If you hear the cleanup song, stop what you’re doing and join in the fun.
User Agreement 3.1: Culture

User Access
Anyone at the ANU is welcome to join, and encourage others to become users. New users (including assistants) must complete a general induction before undertaking any activity in the space. We can arrange tours for non-ANU visitors by appointment but this needs to be agreed to by MakerSpace staff.

Respect other people
Respect people’s opinions, backgrounds and their abilities. What is not important to you might be important to someone else. Be nice, support each other, share skills and expertise. If you see someone struggling, give them a hand. Again, the culture of this space is that people bump heads and learn together. You should take pride in helping others. Such is the maker philosophy.

You may not under any circumstance make anything illegal, such as anything that resembles or could be used as a weapon. This includes but is not limited to replicas, mounts for blades, or replacement parts. Breaching this will result in an immediate revoking of membership and banning from the space. Please speak to us if you have a special project, such as a research project.

Respect the space
This space thrives on the culture you as a user generate and support; central to this is respect for the space, tools, equipment, materials and users. Getting messy is fine and even expected in making, but you must be aware of the impact to others and clean up afterwards. Please leave things as you would hope to find them. Tools must remain in the space.

Fair use of resources
Every user needs to have fair access to our resources (space, equipment and consumables). We will ask you to limit your activities as necessary to allow other users to access resources, so please be understanding. Under no circumstances should you terminate a job to prioritise your own work. If your project required an unreasonable amount of consumables we may ask you to supply your own.

The MakerSpace is not a bookable space.

Storage
For now, we do not have space available for long term storage. The space is also highly frequented by many people, as such, you must take your projects with you. If you need to leave something in the space overnight make sure you label it. Materials and models without label will be disposed of, or treated as scrap/available for others.

Ask us anything!
Tell us what you are up to. We are not here to say no but to find out the best way to say yes. New ideas and proposals will be met with a can do attitude. Get involved, be curious and enjoy yourself. This space is just the beginning and we want capabilities to grow!
User Agreement 3.2: Safety

Closed toe shoes must always be worn. Loose clothing, hair, and jewellery must be restrained.

Anything that could possibly get caught in machinery should be removed or secured. Tie long hair back, and roll up loose sleeves. Tuck in loose shirts. Remove all jewellery from wrists and hands.

Understanding the safe use of equipment

You MUST always read and follow the appropriate Safe Operating Procedure (SOP) for risks and hazards associated with equipment, as well as the personal protective equipment (PPE) required for operators and observers.

MakerSpace SOPs use a ‘traffic light’ system to indicate the level of risk and induction required for each piece of equipment. Make sure you talk to MakerSpace staff to organise an induction if you don’t know how to use something. Only MakerSpace staff may deliver equipment inductions unless prior approval has been given. Even if you’ve been inducted and you’re unsure, don’t be afraid to ask, we’ll give you a refresher.

The table below indicates the available MakerSpace equipment and it’s traffic light rating.

| **GREEN = USE AS INSTRUCTED** | Users who have completed a basic makerspace induction, agreed to the user agreement, and been **instructed** how to use such equipment, may freely use these tools. Follow SOPs closely when using green rated equipment. | Hand tools  
Blades  
Dremel  
Ultimaker printers  
Wanhao printers  
Carvey CNC |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ORANGE = FORMAL INDUCTION</strong></td>
<td>Each of these machines <strong>require an induction</strong> before you may use them. Speak to a MakerSpace staff member, or check the notice board for induction information.</td>
<td>Form 2 Soldering station</td>
</tr>
<tr>
<td><strong>RED = FORMAL INDUCTION+ SUPERVISION</strong></td>
<td>Users are not to use the equipment unless they are being directly <strong>supervised</strong> by a qualified staff user or laser mentor. Ask a MakerSpace staff user before using a machine that is coded red.</td>
<td>Trotec Laser</td>
</tr>
</tbody>
</table>

First Aid

There is a first aid kit located in the workshop, as well as a incident logbook. There is an eyewash station in the sink for chemical eye contaminant incidents. Injuries (beyond 2 bandaids) must be reported to a first aid officer. Several staff in the building, including the adjacent mechanical workshop staff have first aid training; signs in the space list our first aid officers and their phone extensions.
**Fire Extinguishers**

Make yourself aware of the fire extinguisher and fire blanket in the room. (Carbon Dioxide, appropriate for flammable liquid and electrical fires). If it is safe to do so and you are accompanied by a colleague you may use an extinguisher or fire blanket to fight a small fire. A small fire is considered to be less than 1m in size.

**Emergency evacuation**

Users should be aware of the building evacuation alarms. On hearing an alarm, users should turn off machines they are using, and exit the MakerSpace through the main double glass door, and then out the building into the courtyard.

**Report equipment faults and injuries**

However minor - this helps us run a safer workshop. If you see someone using equipment or materials in an unsafe way, politely make them aware of it, or let us know.

**Manual Handling**

Use care when lifting. If you need to move large or heavy items into the MakerSpace always ask for assistance.

**Outside of the MakerSpace**

Prototyping, development and testing carried out outside of the MakerSpace is undertaken at your own risk.

**Bringing your own tools/materials**

Always show powered equipment or experimental materials to MakerSpace staff before using them.

**Eating or drinking in the space**

The MakerSpace is a lab and workshop - it is not food-safe. NO food whatsoever is to be consumed in the space. Use the adjacent tea room and courtyard at your leisure, but keep these spaces tidy. Sealed bottled water is OK, provided the lid is kept on.
User Agreement 3.3: Additional Policies

3D printing

General Rules:

• **Each user may only occupy one printer at a time.** Long prints should be started late in the day, or over the weekend.

• **Fill in the printer log for EVERY print.** This helps us maintain stock and track popular usage.

• Basic PLA plastic for projects for university work or research, is provided free of charge within reason.

• Personal projects < 50g are also free of charge. BYO filament for larger projects.

• Very large (>1 kg) projects may be required to provide their own filament.

• BYO specialty filament, provided you discuss this with MakerSpace staff or power users.

• Formlabs resin is provided on a case-by-case basis for university work or research. Please discuss your project with a MakerSpace staff member to assess the use-case. Personal projects may be completed on the Form2 but you must supply your own resin and tank.

Carvey CNC router

• BYO carving mills and materials. We can let you know where to get a supply.

• Soft metals, although approved in the machines manual, are not suitable.