ANU MakerSpace 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. User Agreement:
   2.1. Culture
   2.2. Safety
   2.3. 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, excluding public holidays and university shut down periods. 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.

The MakerSpace is only possible due to the help and support of our dedicated mentor network. These people volunteer time weekly to be in the space and offer assistance. Mentors are people who have shown a willingness to help others in the space and we’re always looking for more people who can embody the maker culture of learning by doing.

The purpose of this document & accompanying induction is to outline 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.

We love hearing about projects taking place in the space so please ask us questions and share your successes and failures. Get involved, be curious and enjoy yourself.
User Agreement 2.1: Culture

User Access
Anyone at the ANU is welcome to join the MakerSpace community, and encourage others to become users of the facility. 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 arranged and agreed to by MakerSpace staff ahead of time.

Respect other people and the space
Respect people’s opinions, backgrounds and their abilities. Be nice, support each other, share skills and expertise. If you see someone struggling, give them a hand. You should take pride in helping others; such is the maker philosophy.

Please respect the space, tools and materials that have been generously supported by RSPE. Never work on the floor; place your bags/materials on the appropriate benches. Please leave things as you would hope to find them. Getting messy is fine but you must be aware of the impact to others and clean up afterwards. Tools must remain in the space, in their appropriate homes.

Respect Australian laws
You may not under any circumstance make anything illegal or any project that could foreseeably cause harm or offence. This extends to anything that could be mistaken as a weapon or something that could cause offence, functional or otherwise. This includes, but is not limited to: weapons, replicas, toys, mounts for blades, or devices to fire projectiles.

Please Note: In the ACT it is a criminal offence to produce imitation firearms under the Firearms Act 1996 and where we find such a device being produced, we are required to report such matters to the police. Breaching these conditions 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, we have previously been able to assist projects where steps have been taken to ensure the project complies with Australian law.

Fair use of resources
Every user needs to have fair access to our resources (space, equipment and consumables). The MakerSpace is not a bookable space. Tools are accessed on a first-come=first-served basis. We ask you to limit your activities as necessary to allow other users to access resources, so please be understanding. When using digital fabrication tools please limit your usage to one machine per person. Under no circumstances should you terminate a job to prioritise your own work.

Storage
We do not have space available for personal storage. You must take your projects with you. If you need to leave something in the space overnight please speak to us so that we
can ensure it does not get thrown out. Materials and models left in the space will be disposed of or treated as scrap.

**User Agreement 2.2: Safety**

**Protective Equipment**
Closed toe shoes must always be worn in the ANU MakerSpace. You will be asked to leave if your footwear does not comply.

Remove or secure anything that could possibly get caught in machinery. Tie long hair back, and roll up loose sleeves. Tuck in loose shirts, hoody toggles and earbuds.

**Understanding the safe use of equipment**
*You MUST always read and follow the Safe Operating Procedure* (SOP) associated with each tool. SOPs state known 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. Even if you’ve been inducted, if you’re unsure, don’t be afraid to ask - we’ll give you a refresher.

The table below indicates the available MakerSpace equipment and its 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. Instruction may be delivered by inducted makerspace users. **Follow SOPs** closely when using green rated equipment. | Hand tools  
Blades  
Dremel  
Ultimaker printers  
Sewing machine  
Carvey CNC  
Badge Press |
| --- | --- | --- |
| **ORANGE = FORMAL INDUCTION** | Each of these machines *require an induction* before you may use them. Speak to a MakerSpace staff member to arrange this. | Form 2  
Soldering station |
| **RED = FORMAL INDUCTION+ SUPERVISION** | Users are not to use the equipment unless they are being directly *supervised* by a qualified staff user or laser mentor. Ask a MakerSpace staff user before using a machine that is coded red. | Trotec Laser  
Drill Press  
Tormach |
First Aid
There is a first aid kit located in the MakerSpace, as well as 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. An AED device is located in the hallway outside the MakerSpace. To use the phone, an initial 0 is required for an outside line (so for emergency services, 000 becomes 0-000).

Fire Extinguishers
Make yourself aware of the fire extinguisher and fire blanket in the room. The fire blanket should be used on small starting fires (less than 30 cm squared). You may use an extinguisher to fight a small established fire (less than 1m in size) if it is safe to do so and you are accompanied by a colleague. Be aware of the fire alarm in the tea room, break the glass if you assess that an alarm should have gone off and it has not.

Emergency evacuation
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 front courtyard.

Report equipment faults and injuries
Students and staff can work together in order to maintain equipment. If you are using tool that isn’t working please report it to MakerSpace staff. You will be guided in performing the maintenance needed. If you see someone using equipment or materials in an unsafe way let us know via email or approach us directly. Reporting incidents and near misses, however minor, helps us run a safer workshop. Likewise, send us an email if you see someone violating the culture of the MakerSpace.

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. Certain tools may not be allowed due to site-specific restrictions (such as sanding and our lack of dust extraction). We are not here to say no but to find out the best way to say yes.

Eating or drinking in the space

Last Updated: 6/8/19
The MakerSpace is a lab and workshop - it is not food-safe. NO food 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 2.3: Additional Policies

The Store
We now keep a number of often sought materials on hand to sell through our online portal. Please speak to us before you buy something so that we can ensure we have the stock/colour that you want. We currently stock 3D printer filament, cast acrylic sheet, hardwood and PCB blanks. https://bit.ly/anums-store

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.
• Users must fill out the 3D printing log, this helps us to maintain the printers.
• Basic PLA plastic filament is provided within limits. Users may use within 100g for ANU or personal projects.
• Always check what filament is in the machine, you can never just assume. Likewise you must name your filament. Unnamed filament is considered MakerSpace filament.
• Beyond your first prints BYO filament is expected.
• BYO specialty filament (please discuss this with MakerSpace staff), No ABS.
• 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.

Trotec Laser
• Each user is limited to 1 hr per day unless prior approval has been given by MakerSpace staff.

Consumables
• BYO consumable materials. This includes but is not limited to; glues, tape, plastic, wood, cloth, thread, screws etc. We can let you know where to get a supply.