



Membership Handbook  
Updated: April 1, 2025

Link to MAKE Roanoke Bylaws:  
<https://mkroa.org/bylaws>

Link to this Handbook:  
<https://mkroa.org/handbook>

# Membership Handbook

MAKE Roanoke

## Chapter 1. Membership

### 1.1. Membership Eligibility

- In order to become a Member, an applicant must complete the membership application, pay the monthly membership fee, and abide by the Member Handbook and Code of Conduct.
- All membership applications must be approved by the Board or their designee.
- Members must be at least the age of majority in the Commonwealth of Virginia.
- MAKE Roanoke reserves the right to limit membership based on the capacity of the space.

All members *must* provide the following information to the Clerk and update this information whenever it changes:

- Valid email address that they check regularly
- Mailing address
  - Street address (Not PO Box)
- Phone Number
- Emergency Contact Information

Members also must

- Show their ID at onboarding
- Take a membership photo for internal use only
- Review and sign the Membership Handbook
- Sign a waiver (once every 12 months)

### 1.2 Applying for Membership

As outlined in the Bylaws:

- A new Member must either be sponsored by a current Member in good standing or must go through a probationary period, as outlined in Article 2 Section 3 of the bylaws and 1.3 of the Member Handbook.
- All membership applications must be approved by the Board.

Sponsorship Responsibilities

- Member sponsorships are at the discretion of the Board
- By sponsoring a member, you're vouching for their character as well as acting as their guide to MAKE Roanoke.
- You have to have been a full member in good standing for at least 90 days before you can sponsor another member

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## 1.3 Types of Members

### Board Member

- Members in good standing, elected by members in good standing
- Takes executive action and communicates externally on behalf of the entire organization

### Delegates

- Shop Captains
  - Members in good standing, appointed by the Board
  - There's at least one captain for each of these shop areas:
    - Wood Shop
    - Metal Shop
    - Fiber Arts
    - 3D Printing
    - Laser Cutting
    - Electronics
  - Shop Captains define additional safety requirements, training, and tool access restrictions for their shop area. They also are responsible for maintaining their shop area's wishlist and prioritizing equipment purchases.
- Committee Chairs
  - Members in good standing, appointed by the Board to perform specific duties, such as marketing or planning classes or events.
- The Board can vote on removal and replacement of its Delegates at any time.

### Committee Members

- Members who volunteer their time to help out Committee Chairs
- Committee Chairs are in charge of who is on their committee
- The Board can choose to revoke any Committee Member access to shared Google drives and certain Discord areas after 90 days of inactivity on a Committee. (This does not otherwise affect their membership or standing with MAKE Roanoke)

### Member

- Everyone else

### Probationary Member (see bylaws Article 2 Section 3.2)

- A new member who was not sponsored.
- Probationary members do not have voting rights, cannot serve on the Board, and may not sponsor a new member.
- A probationary period will be 60 days, this may be shortened if the member finds a sponsor during the probationary period. After this period, assuming good behavior, the probationary member automatically becomes a full member.

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- The Board can terminate a probationary membership with simple majority vote, bypassing the normal termination process

### Board Designee

- This is a member designated by the Board to serve a specific position not otherwise enumerated here. The Board holds the right to appoint designees when deemed necessary.

### Minor Child of a Member

- Members with children can pay an additional fee for their child to use the space, with restrictions:
- All minors in the space must have a waiver signed by a parent or court-appointed legal guardian on file.
- For minors to use equipment, they must be a child of a member in good standing, and pay the Youth Access fee
- Both the supervising parent AND the child must have successfully passed the corresponding orientation/training for the child to use Yellow and Red level equipment (as outlined in Chapter 3.2).
- Parents MUST be within arms reach and paying attention to children using equipment, including green-level tools.
- Age Restrictions:
  - Under age 8 can be in the classroom and in the Fiber Arts Studio. They can use Green Tools only.
  - Ages 8+ can be trained with Fiber Arts Yellow and Red tools, at the Shop Captain's discretion
  - Ages 12+ can be in the Lab and can be trained on 3D Printing, Electronics, and Laser Cutting Tools, at the Shop Captain's discretion
  - Ages 14+ can also be in the Wood Shop and Metal Shop, and trained on those tools, at the Shop Captain's discretion.
- Minor children of Members do not have voting rights, and cannot sponsor new members
- Shop Captains reserve the right to ban any child from their shop area.
- Any exception to these rules must be agreed to, in writing, by the Board, relevant Shop Captains, the Member parent, and any other relevant adults.

## 1.4 Benefits of Membership

Full Members enjoy a number of privileges at MAKE Roanoke:

- 24/7 access to the building and the tools they're certified to use
- Access to community materials
- Access to free safety training
- Ability to bring guests
- Discounts on classes
- Ability to reserve classroom space
- Voting rights in the organization as outlined in Chapter 4

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- Reasonable inspection rights to MAKE Roanoke corporate records
- Ability to sponsor a new member
- Store a reasonable amount of equipment and/or materials at the space, at the Board's discretion
- All rights afforded Members under the law, and any other rights granted by resolution of the Board

### Guest Policy

Each Full Member may bring up to two guests with them into the space.

- Members are responsible at all times for their guests' conduct and safety while in the space, including following safety policies.
- The Member must be with their guests at all times
- Each guest must be signed in and out of the guest roster when they enter the space and have a liability waiver on file.
- Guests may use green-level tools only (as outlined in Chapter 2.3), or they may use their own tools they have brought in.
- The Board reserves the right to ban guests from MAKE Roanoke premises.

### Classroom Reservations

Members are allowed to reserve the classroom space for up to 10 people once a month for a period not to exceed 3 hours. Longer times require Board approval.

- Requesting a reservation does not guarantee that reservation until it is confirmed.
- Members may request a reservation up to 30 days in advance, and must request it no less than 72 hours in advance, so we can post proper notice in the classroom.
- This is for classroom use ONLY, and guests who are not members themselves are only permitted to use green-level tools in the Classroom area. Guests are permitted to use their own tools they bring in.
- No other member is expected to stop their work during your gathering, we cannot guarantee a quiet space.
- Everyone in attendance MUST have a waiver on file
- Members are responsible for the behavior and safety of their group, and must be with them the entire time.
- The space should be left clean, with tables put back in their labeled positions.
- Fill out the form at <https://mkroa.org/classroom> to request a reservation. Reservations will be granted on a first come, first serve basis with buffer time between reservations.

## 1.5 Member Responsibilities

To remain a member in good standing, the member must do the following (as outlined in the Bylaws 3.3):

- Be up to date with all dues and fees owed to MAKE Roanoke.
- Adhere to the Code of Conduct as defined in Chapter 3.
- Adhere to the essential rules and safety practices as defined in Chapter 2.

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- Maintain current and active email addresses, phone numbers, and mailing address with MAKE Roanoke.
  - Should be a primary email address and phone number. These will be the ones used to contact the member.
  - Mailing address cannot be a PO Box number, as stated above.
  - MAKE Roanoke will never sell your information.
- Thoughtfully and respectfully contributing to MAKE Roanoke's direction and policies
- Continuing to support the purposes of MAKE Roanoke
- Obeying any rules set forth by a resolution of the Board
- Uphold the Member Handbook

If you have any issues with another member, or any other complaints that should be addressed, contact the board or fill out the Interpersonal Incident Form.

### **1.6 Suspension of Membership**

As outlined in the bylaws, Article 2 Section 4: If a member does not pay their dues/fees or violates the MAKE Roanoke Handbook, their membership may be suspended by a simple majority vote of the Board.

- A suspended member will not be able to access the space
- In order for the suspension to be lifted, the suspended member must go through the same application and sponsorship process as a new member.
- The suspended member must then provide payment of any dues owed plus one month beyond the end of the suspension period
- The reapplication requirement may be waived at the discretion of the Board
- After 30 days in suspension, the membership in question will automatically be terminated unless extended by the Board

### **1.7 Termination of Membership (Bylaws Article 2, Section 5)**

A person ceases to be a member of MAKE Roanoke if any of the following:

- That membership expires without renewal
- That member has been suspended for 30 days
- That member has died
- That member fails to pay dues, fees, or assessments within 30 days of being due
- Occurrence of any event that renders that member ineligible for membership or failure to satisfy membership qualifications
- That member resigns (see below, Self-Termination)

#### **Self-Termination**

When a member decides to terminate their own membership they need to:

- Notify the Board that they wish to terminate their membership.

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- Notification of termination must be in writing, either by a hard copy submitted to the Board Box or via email to board@makeroanoke.org
- Notification must be at minimum 15 days prior to their billing date.
- Return all properties owned by MAKE Roanoke.
  - Such as, and not limited to, access keys, loaned equipment, documentation.
- Remove all their personal property from MAKE Roanoke premises by their effective termination date.
  - The Board may approve personal property to remain on the premises after termination for a limited period of time.
  - The Board may accept the donation of any personal properties if these properties may be used or consumed by other members.
- Pay any remaining unpaid dues, fees, or any other monies owed

### Board Termination

The Board may terminate a membership by:

- Starting the termination process with a simple majority vote of the Board, based on a good faith determination that the member has failed in a material and serious way to observe the MAKE Roanoke Member Handbook or has engaged in conduct materially and seriously prejudicial to MAKE Roanoke's purposes and interests.
- The member will be given prior notice of the proposed termination and reason behind it
  - Notification will be made by any method reasonably calculated to provide actual notice.
- The member shall be given an opportunity to be heard, either orally or in writing, before the effective date of the proposed termination
  - This shall be considered by the Board
  - The Board and/or member may provide witnesses and/or testimony to be considered
- The Board will decide through simple majority vote if:
  - The membership should be terminated or
  - The member should be sanctioned in some way
  - This vote is final and binding
- The Board shall make reasonable efforts to mediate and resolve issues with Members, however a period of suspension shall not be required prior to a vote to terminate a membership
- In the case of a probationary member, the Board may terminate with a simple majority vote in lieu of the above process.

When a membership is terminated by the Board, that member must:

- All membership dues already paid are forfeit
- Return any equipment owned by MAKE Roanoke within 15 days.
  - Such as, and not limited to, access keys, loaned equipment, documentation.
  - Failure to do so may result in legal action.
- Remove all their personal property from MAKE Roanoke premises in a timely manner.
  - Must coordinate space access with the Board or Board Designee within 30 days.
  - The Board may approve personal property to remain on the premises after termination for a limited period of time.

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- The Board may accept the donation of any personal properties if these properties may be used or consumed by other members.
- If a member has ever been terminated, for a reason other than non-payment, they may not be on MAKE Roanoke premises for any reason without Board approval.
- Board Terminations will remain in effect for a period of one year, unless vacated by the Board
- See Article 2, Sections 4 and 5 in the Bylaws for more details on Board termination of membership

### 1.8 Pause of Membership

A member in “pause” will (as in the Bylaws, Article 2 Section 6):

- Not have access to the space or tools, except when the space is open to the public
- Not have voting rights
- Retain storage space previously allocated to the member, subject to availability

To pause a membership the Member must petition the Board within 15 days of their next billing date. If a pause is granted, for how long it can be granted, and how often a pause may be granted is at the discretion of the Board.

## Chapter 2. Shop Rules & Safety

### 2.1 Dress Code

#### Footwear

- Closed-toe shoes are mandatory to protect against potential hazards and reduce the risk of injuries.
- Slip-resistant soles are recommended for enhanced safety.
- Inappropriate footwear includes open-toed shoes, sandals, high heels, and Crocs, as they do not provide sufficient protection.

#### Clothing

- Avoid loose or flowing clothing that could get caught in machinery or pose a tripping hazard.
- Long sleeves and pants are recommended when working with materials or equipment that may cause irritation or cuts.

#### Personal Protective Equipment (PPE)

- Wear appropriate PPE, such as safety glasses, helmets, gloves, masks or hearing protection, as required for specific tasks.

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## Jewelry and Accessories

- Minimize the wearing of jewelry and accessories that could get caught in machinery or equipment.
- Remove accessories that might interfere with the proper fit of personal protective equipment.
- Necklaces, lanyards, and anything dangling from the neck are prohibited in the makerspace.

## Hair Safety

- Tie back long hair and beards to prevent entanglement in machinery or equipment.

## 2.2 General Shop Rules and Safety

**In an emergency, CALL 911.**

If you see something unsafe, say something, do something.

1. Speak to the member
2. If safe to do so, unplug the machine
3. Add a label warning about an unsafe thing and notify the Board or Shop Captain.

It's hard to draw a box around every case, but the key is to be proactive.

Follow all posted signage.

- Know the location of the emergency exits.
- Know the location of all the fire extinguishers and familiarize yourself with their operation.
  - Members may be asked to participate in Fire Safety training before using specific tools.
- Also know the location of first aid kits and the emergency eye-wash station.
- Safety rules may be updated without advanced notice at any time by the board or its designees.

Tool Usage

- You must be certified by MAKE Roanoke to use each power tool / machine in MAKE Roanoke prior to using it – even if you are familiar with that machine already, or own one at home.
- To be certified to use a machine, contact the Shop Captain for that shop area.
- Misuse of any equipment which leads to damage may result in disciplinary action in accordance with Article 2 of the bylaws.
- If you do feel like you are an expert on a machine, please consider giving back to MAKE Roanoke by volunteering to help teach a class or be a tool trainer and help get other members up to speed. Talk to the appropriate Shop Captain to do so.

Cleanup

- Do your part to keep the space neat - we have no staff.
- Before you leave the space, clean up, power down, and put away whatever equipment and workspace you may have been using.

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- Projects often involve working on five or more machines, and it is easy to accidentally only clean up 4 out of 5 work areas. To offset this, it's best to leave the space just a little cleaner than you've found it.
- Don't lose track of time and forget to leave yourself time to clean up.
- Cleaning is just as important as the rest of the process.

### Consumables

- Feel free to consume the resources of the space (scrap, electronics components, etc.) but be reasonable about the quantity.
- Please don't go into mass production using the community materials!
- It's a great idea to put a donation in the Board's lock box when using consumables.
- If you are burning up end mills with all the machining you need to do, please buy a set just for yourself.

### Tool Ownership

- A lot of major equipment in the space is on loan to the space by its members.
- If you'd like to loan something to the group, fill out the form at [mkroa.org/donate-tools](http://mkroa.org/donate-tools)
- You may bring your personal tools into the Makerspace, but if you want them to live in a public space, you must allow other members to use them (with proper training of course).
  - If you plan on being the only one using a tool, you must keep it in your storage area when you are not actively using it.
- Members may use green tools and any red or yellow tools they've been certified on. See Guest and Youth Access policies for non-Member tool use.

Don't be under the influence of alcohol or drugs in MAKE Roanoke.

Any unauthorized attempt, in good or bad faith, to disable or work around security systems will result in membership termination. Security systems include but are not limited to cameras, door access control, and machine interlocks.

Do not "piggyback", or enter the space without scanning your badge. Each member entering the space should scan their badge.

## 2.3 Tool Training and Certification

You can only use our tools once you are certified by MAKE Roanoke to do so. Tools have 3 levels of clearance:

- **Green** (○) Level tools are tools that you can't hurt and that can't hurt you. They are unlocked after the general orientation.
- **Yellow** (◻) Level tools are tools that are unlocked after completing a shop-level orientation. These are tools that have a very simple training process.

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- **Red** (▲) Level tools require tool-specific training. These tools are more involved or more dangerous than a yellow-level tool.

Tool training is designed to teach you how to use a piece of equipment safely. They are not designed to teach you how to be an expert in that tool.

At shop captain's discretion, classes may unlock tools as well (i.e. taking the Cricut basics class can unlock access to Cricut Maker)

## 2.4 Prohibited Projects

All work on firearms, as defined by MAKE Roanoke in section 1 below, is strictly prohibited unless specifically exempted in section 2.

- "Firearm" within this policy is deliberately far broader than most legal definitions
- "Work" or "Working" on a firearm means creating, modifying, or assembling section 1 item(s) together with other section 1 item(s) or section 2 item(s)

Violation of this policy may lead to expulsion from MAKE Roanoke and/or filing a criminal complaint with the relevant authorities.

Section 1: Work on the following items is explicitly and strictly prohibited:

### **Firearm:**

- A device that expels a projectile or projectiles by means of a deflagrating propellant (i.e. the deflagration or detonation of gunpowder or other similar propellant).
- This includes not only the BATFE definition of a firearm - its receiver - but also firearm-specific components that attach to a firearm (unless specifically exempted in section 2) including but not limited to barrels, cylinders, magazines, charging handles, safeties, buffers, actions, barrel bushings, linkages, extractors, firing pins, trunions, recoil springs, gas blocks.

### **Replicas:**

- Meant to closely resemble a firearm while lacking the ability to expel a projectile or projectiles

### **Suppressors or Silencers:**

- Reduce the sonic concussion of expelling a projectile or projectiles

### **Reloading:**

- All activities associated with the production of ammunition, including but not limited to processing primers, gunpowder/propellant, cases, and projectiles

Section 2: Exemptions

Work on the following firearm-related items are exempted, subject to conditions:

### **Devices that expel a projectile or projectiles by non-deflagrating propellant means:**

- Examples include springs, compressed air/gas, electronic, mechanical action.

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- Not exempted are components interchangeable with firearms as defined in the previous section.

### **Slings:**

- Slings and sling attachments opposite point of attachment to the firearm

### **Fasteners and commodity hardware:**

- Standard components used on firearms not specific to firearms

### **Sights:**

- Scopes, sights, lasers, flashlights, etc not integral to the firearm

### **Bipods:**

- And other firearm supports if removable without tools

### **Stocks and grips:**

- May be made, refined, or modified at MAKE Roanoke

### **Props:**

- Non-firearm devices that do not closely resemble actual firearms such as sci-fi, fantasy, steampunk creations. Must not include devices from section 1.

Checking the fit of exempted items (i.e. stock, sling, sights, etc) from section 2 to a firearm in section 1 at MAKE Roanoke is prohibited. Section 2 items may be separated from Section 1 items at MAKE Roanoke, however they are not to be attached at MAKE Roanoke.

## 2.5 Maintenance & Troubleshooting

Shop Captains and their delegates are responsible for maintaining the equipment within their shops. If you run into an issue with a piece of equipment not covered in the shop training, please notify that Shop Captain. Please don't move or modify any equipment in the space without approval from the Shop Captain and equipment owner.

## 2.6 Shop Area Specific Rules and Safety

### **Wood Shop**

#### General Safety

1. Members must have completed MAKE Roanoke's new member orientation before using the Wood Shop.
2. All floor equipment, stationary countertop tools, and every hand power tool with a blade or cutting bit are rated "red," meaning MAKE Roanoke tool-specific competency & safety training must be completed and certified prior to use. Hand drills and sanders are "yellow," requiring basic Wood Shop orientation. Non-motorized hand tools are rated "green."
3. Food or drinks are strictly prohibited in the shop.
4. Return each tool to its storage location.
5. All machinery equipped with dust collection MUST engage the designated dust collector while in operation.
6. Do not leave any operating tool unattended.

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7. Properly support all material while cutting/shaping.
8. Machines must be allowed to spin down on their own. DO NOT artificially stop any motor.
9. Do not use compressed air to clear chips from machines, yourself, or others.
10. Do not attempt to use dull or damaged blades or bits. Place all unusable cutters and inserts in the appropriate container.
11. Unless performing an operation that requires hearing protection, you must have at least one ear open. Having earbuds in both ears is prohibited.
12. Necklaces, hood strings, and the like must be tucked into your shirt, or removed.
13. Long hair must be tied back in such a manner, as to keep it behind your shoulders.
14. The following clothing/items are not allowed under any circumstances:
  - a. Long sleeves
  - b. Rings
  - c. Watches
  - d. Gloves of any kind, including latex/nitrile gloves.

### Shop Policy & Courtesy

1. Clean up after yourself before you leave or if your debris interferes with another.
2. If a piece of material is marked, cut your stock off the end opposite the mark.
3. Do not use grinding equipment of any kind on workpieces in machines.
4. Use correct PPE as appropriate.
5. Return machines to their default state when you're finished. Some examples:
  - a. Lower all blades where practical.
  - b. Replace all drill and router bits to their respective storage kits.
  - c. Lower jointer and planer blades.,
6. Be mindful of others. Do not monopolize machines, and do not touch other's projects.
7. Storage of in-progress projects subject to space restrictions and Parking Permit rules, unless otherwise approved by the Shop Captain.

## Metal Shop

### General Safety

1. Members must have completed MAKE Roanoke's new member orientation before using the Metal Shop.
2. Digital calipers, scales, files, and other simple hand tools are considered Green tools. Use of these tools requires completion of general space, and shop-specific orientations.
3. Micrometers, indicators, and other precision metrology equipment are considered Yellow tools, due to the delicate nature of said equipment, and knowledge requirements for use. Tool-specific competency training must be completed prior to use.
4. All machines in the Metal Shop are considered Red tools. Tool-specific competency & safety training must be completed prior to use.
5. Food or drinks are strictly prohibited in the shop.
6. Do not leave chuck keys in the chucks.
7. All files must have handles.

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8. Do not take measurements with the machine running.
9. Do not walk away from a running machine.
10. Make sure the machine is stopped before changing speeds/gears/etc..
11. Machines must be allowed to spin down on their own. DO NOT slow/stop a spindle with your hand.
12. Do not clear chips with your hands. Use a brush, tweezers, pliers, or another suitable tool.
13. Do not use compressed air to clear chips from machines, yourself, or others.
14. No mist coolant allowed.
15. Do not attempt to use dull or damaged cutting tools. Place all unusable cutters and inserts in the appropriate container.
16. Long hair must be tied back in such a manner, as to keep it behind your shoulders.
17. Necklaces, hood strings, and the like must be tucked into your shirt, or removed.
18. The following clothing/items are not allowed under any circumstances:
  - a. Long sleeves
  - b. Rings
  - c. Watches
  - d. Gloves of any kind, including latex/nitrile gloves.
19. Unless performing an operation that requires hearing protection, you must have at least one ear open. Having earbuds in both ears is prohibited.
20. Materials placed in the scrap bin must be deburred.
21. The bench grinder is for ferrous materials only (steel, iron). Grinding soft materials such as aluminum, brass, or plastic can clog the wheel, resulting in a potentially dangerous condition.

### Shop Policy & Courtesy

1. Clean up after yourself.
2. Mark raw materials whenever possible:
  - a. Type of material
  - b. Alloy
  - c. Heat Treat, if applicable
3. If a piece of material is marked, cut your stock off the end opposite the mark.
4. Do not machine wood or fiberglass.
5. Do not use grinding equipment of any kind on workpieces in machines.
6. Cover or otherwise protect machine ways/slides when cutting hard materials (i.e., hardened steel).
7. Avoid the use of excessively smoky cutting fluids. Use correct PPE as appropriate.
8. Return machines to their default state when you're finished. Some examples:
  - a. If you removed the vise from the mill, put it back and tram it in.
  - b. If you set-over the tailstock on the lathe, re-center it.
  - c. If you tilted/nodded the mill head, tram it back in.
9. Keep measuring equipment clean, and put away when not in use.
10. Keep the surface plate covered when not in use.
11. Be mindful of others. Do not monopolize machines, and do not touch other's projects.

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12. Do not leave projects on machines when you're done for the day. The use of fixture plates, sub-vises, and other methods of quickly restoring a setup, is encouraged.
13. Storage of in-progress projects subject to space restrictions and Parking Permit rules, unless otherwise approved by the Shop Captain.
14. If you suspect a measuring instrument is inaccurate or requires calibration, label the instrument as suspect, and inform the Shop Captain.

### Fiber Arts Studio

#### General Safety

1. Members must have completed MAKE Roanoke's new member orientation before using the Fiber Arts Studio.
2. No food or drinks are permitted on or near machines in the Fiber Arts Studio.
3. Dispose of all spent sharp objects: sewing needles, knife blades, straight pins, etc in the yellow blade disposal tub.
4. Do not cut directly on the tables, use a cutting mat.
5. Keep all accessories with their machines.

#### Studio Policy & Courtesy

1. Clean-Up is mandatory. Remove all scraps, loose threads, etc from your workspace when you're done. Sweep up your area before you leave.
2. Do not disturb another member's project.
3. Do not leave your project out where it takes over equipment (machines, dressforms, tables, etc). A draped project in progress may be left on a dressform for up to 24 hours using the Parking Permit system. Members can store projects and non-communal materials in a locker.
4. Don't wind communal bobbins up all the way unless you'll need that much thread.
5. Feel free to add "usable scraps" (bigger than an adult hand, approximately) to our scrap bin!
6. No dyeing in the sink.
7. Browse the scrap bin for suitable material before cutting into communal yardage.

### 3D Printing Lab

#### General Lab Safety

1. Members must have completed MAKE Roanoke's new member orientation before using the 3D printing lab.
2. All machines in the 3D printing lab are considered "red" tools, meaning shop-specific competency & safety training must be completed prior to use.
3. Many hazardous materials are used in the 3D printing lab. These emit toxic vapors and leave harmful residues when handling and printing. All ventilation, PPE, disposal, and safety guidelines must be observed at all times. Failure to do so may result in disciplinary action. Policies are outlined in the FDM and Resin printing sections below.
4. No food or drinks are permitted in the 3D printing, laser, or electronics labs.

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### Lab Policy & Courtesy

1. No prohibited prints - Refer to section 2.4 “prohibited projects” for details. Shop captains and captain-approved delegates may cancel prints of any prohibited objects without notice.
2. No monopolization - Respect must be observed for all communal resources. Fair access to machines, filament, resin, tools, cleaners, and work surfaces must be maintained. Back-to-back printing is allowed, but members must yield to others waiting to use the same machine.
3. Respect others members’ work - Do not touch machines that are actively printing, or cancel active print jobs without permission from the print owner, or shop captain. Exceptions may be granted for failed prints, material depletion, malfunctioning equipment, prohibited prints, or completed prints that have not been removed.
4. Cleanup is mandatory - Remove supports, scraps, drips, and other debris from all machinery and work areas when finished. Failure to do so may damage machinery and other tools. This rule also applies to communal work surfaces inside and outside of the main 3D print lab.
5. Material use - While the 3D printing lab will attempt to keep a limited supply of communal materials, it cannot guarantee material availability. Members are encouraged to supply their own filaments and resins. Materials owned by MAKE Roanoke may not be borrowed or taken from the shop under any circumstances.
6. Print scheduling - Any prints over 8 hours must be scheduled in advance. If print jobs are not started within 15 minutes of the scheduled start time, the reservation is forfeited. Printers may be used any time, as long as there are no reservations scheduled in the machine booking sheet.
7. No printer modifications - All maintenance tasks are coordinated by the shop captain and/or their appointed delegates monthly. Contact the shop captain if maintenance is needed sooner.
8. Turn off all equipment when finished - All equipment should be fully powered off when not in use. This includes printers, washing stations, filament dryers, ventilation equipment, work lights, UV lamps, and any other electronic equipment.

### Member-Furnished Materials

Members are encouraged to supply their own 3D printing materials, but they must adhere to the following guidelines to ensure safety, lab quality, and equipment longevity. Purchasing high quality materials from well-known vendors is highly recommended.

1. The shop captain must be notified before you plan to supply any of the following materials. These materials have special printing and safety requirements that must be accounted for.
  - a. **Composite filaments** - Any filament with additives such as carbon fiber, wood, metal, glass, glitter, matte-finish, marbled, or electrically conductive filaments.
  - b. **Engineering-grade filaments** - Polycarbonate (PC), Nylon (PA), Polyetherimide (PEI/Ultem), Polypropylene (PP), Thermoplastic Polyurethane (TPU), Polyether ether ketone (PEEK), or any other uncommon or special-use filament.
  - c. **Engineering-grade resins** - Any resins marketed as exceptionally durable, flexible, or tough. Consumer-grade resins <\$100 do not apply.
2. Cardboard spools are strongly discouraged. They cannot be used with multi-material units (Bambu AMS, Creality CFS, Anycubic ACE, etc). A limited supply of plastic spools will be available for re-spooling if needed. For best shop-wide compatibility, filaments shipped on plastic spools are recommended.

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3. Self-furnished materials must be labeled with your name and material type. You are responsible for keeping track of anything you bring to the makerspace.
4. Self-furnished materials may not be stored unused in the 3D printer lab or inside lab equipment for more than 15 days. Anything stored longer than 15 days will be considered abandoned, and will count as a donation to the 3D printing lab. Members may use lockers to store materials they wish to keep at MAKE Roanoke.

### Filament Printer (FDM) Policy

1. MAKE Roanoke certification is required - Printers in the 3D printing lab are considered “red” tools. There are a variety of machines available, and each has specific procedures for print preparation, filament changing, and loading/unloading parts. For this reason, you must be approved to use each machine.
2. Print Profiles - Members must use Orcaslicer and profiles that are provided by MAKE Roanoke. This is important for ensuring the community has access to printers that are easy to use, ensuring machine longevity, and producing high-quality prints. Printing settings may be adjusted as needed, but machine settings may NOT be edited. Orcaslicer is a feature-rich and highly compatible slicer that is updated often with new features.
3. Use only printer-compatible materials - All FDM machines are limited to the types of filament they can use. Some types of filament are unsafe, or will damage certain printers. Each machine is labeled with materials they can accept.
4. Prevent filament tangling - Handle the loose ends of filament with care. They should be secured to the spool using retaining features or with tape when not in use. Tangled filaments can cause serious damage to extruders, motion systems, and multi-material units.
5. Observe build plate compatibility - Some materials will damage build plates by adhering permanently, creating chips, or peeling up build plate coatings. All materials must use a compatible build plate with interface material, if needed (PETG, TPU). If negligence is suspected, you may be charged for damaged build plates.
6. Finished prints - Finished prints must be removed within 1 hour of completion. Users must arrange to pick up finished parts. Any parts remaining on the printer after this time may be removed by other members.
7. Clean up - Cleaning up is mandatory. All 3D printing debris must be removed from machinery and work areas when finished. Build plates must be cleaned using dish soap and brush.

### Resin Printer (SLA/DLP) Policy

1. MAKE Roanoke certification is required - Printers in the 3D printing lab are considered “red” tools. There are a variety of machines available, and each has specific procedures for print preparation, material loading, and unloading parts. For this reason, you must be approved to use each machine.
2. Safety - Gloves and safety glasses must be worn when using resin printers and any related tools. Safety glasses are not required if you wear prescription glasses. Assume all work surfaces at the resin printer station to be contaminated with resin. Prints that have been washed, but not UV cured are **not safe to handle without gloves**.

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3. Print profiles - Members must use Chitubox and resin profiles provided by MAKE Roanoke. All machine profiles in Chitubox are published by the manufacturer, which ensures high-quality prints and minimizes the potential for print failure. Exposure times may be adjusted as needed, and will vary based on resin type, and color.
4. Ventilation - All resin printers must be placed in the ventilation tent or cabinet when printing. They should remain here until the printer and resin vat are cleaned.
5. Manage contamination - Every effort must be made to limit resin contamination. Plastic trays are available for use when post-processing finished prints. Gloves should be changed if they are excessively contaminated.
6. Cleaning is mandatory - Printers must be emptied of leftover resin after every use. Build plates must also be cleaned with alcohol after each use. Use a filter funnel to return all unused resin from the resin vat to its original container. Use a **plastic** scraper to gently squeegee resin from the vat film. Isopropyl alcohol should be used to clean the build platform and the resin vat. Proper cleaning procedure is covered during certification training.
7. **Absolutely no resin or resin-contaminated alcohol should go down the sink** - A chemical waste storage bucket is available for safe disposal of alcohol and degraded resins.
8. Use only printer-compatible materials - Some engineering-grade resins cannot be printed on our machines, since they require heated vats.
9. Finished prints - Finished prints must be removed within 1 hour of completion for post-processing. Members are encouraged to let prints drip for 30 minutes to reduce washing effort and IPA contamination.
10. Use resin-specific hand tools - Tools used for resin post-processing should not leave the resin printing station, in effort to contain residue. Tools from other areas in the shop may not be borrowed.

## Electronics Lab

### General Lab safety

1. No food or drink is allowed in the electronics area. This is to avoid lead contamination, as well as contamination from other hazardous chemicals in the room (flux, 3D-printing resin, etc.).
2. Always assume soldering tools are hot.
3. Turn equipment off after you're done using it.
4. Don't throw batteries in the trash. You're responsible for your own battery disposal
5. Make sure to clean up after you're done using the space
  - Clean up any soldering residues (flux, alcohol, etc.)
  - Don't leave loose components
  - Return tools to their proper place
6. Don't drill or cut into PCBs inside the electronics room. If you have to, then it should be done outside, with PPE. Most PCBs contain fiberglass and will create fiberglass dust, which is an inhalation hazard.
7. If you're not sure if something is safe or not sure how to use the equipment, then ask.

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## MAKE Roanoke

### Soldering

1. Don't leave the soldering iron unattended when in use.
2. You must either use gloves while soldering or wash your hands once you are finished. This helps prevent lead and flux contamination across the space.
3. Work under the provided fume extraction, and avoid inhaling the fumes. This protects both you and other members in the room.
4. When you're finished soldering, leave a ball of solder on the iron tips. This helps the iron tips last longer.

### Equipment and Supplies

1. We will aim to keep some general components stocked: resistors, capacitors, and a collection of other fun things that have been donated. You are welcome to use these in your projects.
2. If any of the components are running low in stock, consider leaving it for the next member if it's not critical for your project
  - Contact the shop captain when we run low on anything.
  - If you order parts for a project and have extras, consider donating them to the space
3. When returning components, if you're not sure where they go, then put them in the "TO SORT" box.

## Laser Cutter

### General Lab Safety

1. Members must have completed MAKE Roanoke's new member orientation as well as Laser Cutter competency and safety training prior to use as it is considered a 'red' tool.
2. The Laser operates by burning materials away from the base material, creating harmful fumes and smoke, so ventilation is required during operation of the laser.
3. Material restrictions will be up to date in the Laser Cutter portion of our wiki to help reduce potential toxic fumes, and to prevent damage to the Laser Cutter itself.
4. No food or drinks are permitted in the 3D printing, laser, or electronics labs.

### Lab Policy & Courtesy

1. No prohibited projects - Refer to general safety for details. Shop captains and captain-approved delegates may cancel any prohibited objects without notice.
2. No monopolization - We currently have just the one Laser Cutter in operation at this time, so be sure to respect other members' time if they want to use the Laser Cutter as well.
3. Respect others members' work - Do not touch machines that are actively cutting, or cancel active cutting jobs without permission from the print owner, or shop captain. Exceptions may be granted for failed projects, malfunctioning equipment, ignited material or prohibited projects.
4. Cleanup is mandatory - Remove all material and scraps from the work area when you are done cutting or etching with the Laser Cutter.

# Membership Handbook

MAKE Roanoke

## Chapter 3. Code Of Conduct

### 3.1 Harassment Policy

MAKE Roanoke is committed to providing a safe, respectful, and inclusive environment for all members, visitors, and participants. MAKE Roanoke takes harassment very seriously, and the Board investigates each accusation thoroughly, acting based on the evidence we have. Harassment includes, but is not limited to, actions, comments, or behaviors that create an intimidating, hostile, or offensive atmosphere based on an individual's race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or any other legally protected characteristic.

#### **Forms of Harassment:**

Harassment can manifest in various ways, including, but not limited to:

- Verbal Harassment: Unwanted comments, slurs, or jokes that create discomfort or offend others.
- Physical Harassment: Unwanted physical contact, invasion of personal space, or any form of physical intimidation. Also includes damaging personal property.
- Visual Harassment: Offensive gestures, displays, or any visual materials that create discomfort or contribute to a hostile environment.
- Cyber Harassment: Harassment through electronic means, including but not limited to, emails, social media, or any other form of online communication.

#### **Reporting Procedures:**

If you experience or witness harassment at MAKE Roanoke, or at any formal or informal MAKE Roanoke activities, we encourage you to report it promptly. Reports can be made using the Interpersonal Incident Report form. We take all reports seriously and will conduct a thorough and impartial investigation.

#### **Retaliation:**

MAKE Roanoke strictly prohibits retaliation against individuals who report harassment in good faith. Any form of reprisal or retaliation is a violation of our policies and will be subject to disciplinary action.

#### **Disciplinary Actions:**

Any member found to have engaged in harassment may face disciplinary actions, in accordance with Article 2 of the bylaws.

#### **Confidentiality:**

Reports of harassment will be handled with sensitivity, and confidentiality will be maintained to the extent allowed by law. However, we cannot guarantee complete confidentiality in all circumstances, especially when the safety of the community is at risk.

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MAKE Roanoke is dedicated to fostering an environment that values diversity, equity, and mutual respect. Harassment undermines these values and will not be tolerated. Your cooperation in promoting a positive and inclusive atmosphere is crucial to the success of our community.

### 3.2 General Conduct

#### Maintaining a Community Space

- No sleeping or living in the space.
- No cooking food/food prep in the makerspace. Any food/snacks you bring in must remain in the classroom area - no eating in the shop areas. All food must be disposed of properly, and NO food may be stored in the space.
- No smoking or vaping in the space or within 25 feet of the space entrances.
- Discard cigarette butts in specified receptacles.
- No pets in the space. Service animals are allowed.
- Don't throw things into the rafters.
- No bikes in the main area of the space unless they're being used for a project.

#### MAKE Roanoke is not your Garbage Dump

Members of MAKE Roanoke are expected to clean up after themselves and their guests.

- When finished with a work area, please make sure it is neat and tidy (even if it wasn't before) so that someone else can work there.
  - This goes for the break areas as well. Make sure all drink cans, paper plates, and utensils are disposed of properly, etc.
- If you make a mess or cause a spill, you are expected to clean it up.
- No abandoning property at the space. If you want to donate something, talk to the Board of Directors by emailing [board@makeroanoke.org](mailto:board@makeroanoke.org)
  - Abandoned property becomes the property of MAKE Roanoke after 15 days, and may be summarily disposed of as the Board of Directors sees fit.

#### Be considerate

Remember, people are here to work.

- When doing anything involving loud noise, warn people first.
- Give members adequate space to do their work safely.
- MAKE Roanoke is an active workshop, do not run, horseplay, etc.
- People may not be in the mood to socialize while working. Respect people's boundaries.
  - Additionally, keep loud conversations to a minimum and any music at a reasonable volume in the space while others are working.
- No bothering other people's projects unless they give you permission. Doing so may constitute harassment.

# Membership Handbook

MAKE Roanoke

## Chapter 4. Voting

Members are entitled to a vote on MAKE Roanoke business matters as per Article 3 Section 4 of the bylaws.

- Membership Votes take place at an official regular, annual, or special meeting.
- Issues are decided on by a simple majority of present voting members, proxies, and electronic votes, so long as at least one-third of the voting membership votes.
  - Bylaws amendments require a simple majority vote of the entire membership
- Prior notice of matters to vote on shall be provided via official communication to members' email address of record at least one week in advance of any such vote.
- If a simple majority of the membership calls for a special meeting (see Article 3 Section 3 of the bylaws), no prior notice needs to be provided for matters to be brought to a vote
- In the event of a tie on any vote (board vote or full membership vote), the Chairman of the Board has the authority to cast a second vote to break the tie.

### Proxy Voting

Members have the right to appoint a proxy voter if you cannot attend important meetings or votes.

#### To vote by proxy:

- Contact the Secretary of the Board, providing written authorization including your proxy's details and their voting scope.
  - Example: "I will not be at the annual meeting, and am appointing Jane Doe to be my proxy. Jane is permitted to vote for Board elections and Bylaws amendments for this election only."
  - You can also revoke your proxy by contacting the Secretary.
- Your proxy should vote in your best interest and report back on the outcomes.
- No Member may serve as more than five proxies for voting purposes, provided that the candidate(s) or the intentions on any motion to be voted on are clearly stated on the written proxy (e.g. Jane Doe cannot be a proxy voter for more than 5 Members)

Members have various rights regarding the election and maintenance of board positions. For more detailed information, see Article 4 Section 4-5 of the bylaws.