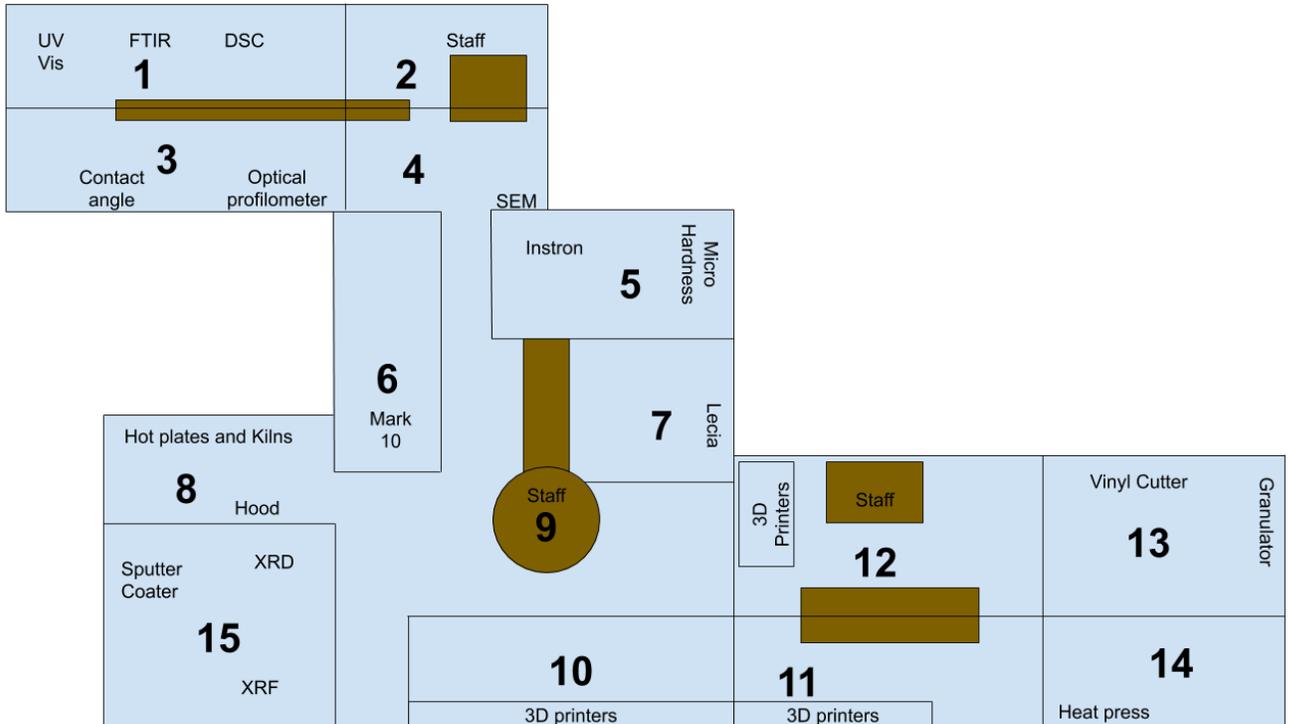


## **Materials Innovation & Learning Laboratory (MILL) Reopening Plan**

**Background:** The Materials Innovation & Learning Laboratory (The MILL) is an open access undergraduate student-run make-and-measure space sponsored by the School of Materials Science & Engineering at Georgia Tech. We are based in the Love Manufacturing Building (Rm 176). The MILL provides a relaxed & safe discovery space to gain hands-on experience in techniques common to the materials science and engineering discipline, including the processing of materials, the characterization of their chemistry and structure, and the measurement of their properties. All Georgia Tech students, faculty, and staff have open access to learn about any of our equipment during our open hours under the supervision of one of our MILL Staff Engineers (MSE), managed through our Equipment Teams. The MILL serves as Georgia Tech's Hub for Experiential Education in Materials Science and Engineering, providing students with hands-on scientific training in inquiry-based discovery science and engineering design for class projects, laboratory courses, independent or group research, entrepreneurial pursuits, and team-based capstone design.

### **1. Occupancy Capacity:**

- A. In accordance with Georgia Tech's recommended capacity of 1 person per 150 sq ft, the MILL is only allowing up to **two users in Love 176** at a time, **up to five users in the Processing and Measurement Room** at a time, and **one user in the x-ray room** at a time.
- B. 6 ft social distancing is to be maintained by all users in the MILL. To ensure that 6 ft social distancing is maintained at all times the MILL has created a zoning system
  - a. The MILL has grouped its equipment into 15 separate zones and is setting a capacity of one person per zone to prevent the simultaneous operation of equipment that would violate the 6 ft social distancing mandate.



## 2. Operations / Programming:

- A. To reduce the number of person to person interactions, the MILL will have significantly reduced capacity for training new users on equipment.
- B. The MILL will categorize users as *trained* or *untrained* for each piece of equipment.
  - a. A *trained* user has been trained, in the past, by a MILL staff member on how to safely operate the piece of equipment and needs little to no help running an experiment or taking a measurement. A trained user only needs a staff member to answer minor questions and a staff member could provide assistance while socially distant in the room or via video call.
    - i. In order to be classified as a *trained* user for a piece of equipment, the TO of the equipment or CTO of the equipment team must identify you as being competent on that piece of equipment
  - b. An *untrained* user has not been trained on a piece of equipment by a MILL staff member and requires a staff member to run an experiment or take a measurement for them. MILL Staffers will operate equipment for untrained users.
- C. To ensure that capacity and 6 ft social distancing is maintained at all times the MILL has created a scheduling system.
  - a. The MILL is allowing up to two trained users to sign up to use equipment in Love 176 in the same time slot, as long as they are in separate zones. However, only one untrained user can sign up per time slot.

- b. The MILL is allowing up to five trained users to sign up to use equipment in the Processing and Measurement room in the same time slot as long as they are in separate zones. However, only one untrained user can sign up per time slot.
  - c. The MILL is allowing one user trained or untrained to sign up to use equipment in the X-Ray room per time slot.
  - d. All untrained users will be required to attend a consultation with a MILL staff member during posted office hours.
    - i. During office hours, MILL staff members will be available to discuss what the users want to accomplish and help sign users up for an available time.
    - ii. Untrained users can enter the MILL to handoff any necessary materials and then are required to wait outside of the MILL while a MILL staffer operates the equipment.
  - e. Users are asked to wait outside of the MILL until their scheduled time.
  - f. Users and staffers will be required to fill out a short survey available from QR codes hanging in and outside of the MILL
- D. The MILL's 3D printers will have their own queue system
- a. To use a 3d Printer, users will sign up for a consultation with a staffer
    - i. Consultations will include submission of a print file, a review of the design of the print, an overview of how 3d-printing works for new users, and making any sort of adjustments to the print file (Scaling, duplication, layer height, supports, etc).
  - b. If the print cannot be completed immediately, the print file should be saved as gcode and added to a queue.
  - c. Users should expect a week-long turn-around time.
  - d. A single user can only submit 1 large print (4+ hours) or 2 small prints per week.
  - e. Prusas will be reserved for non-PLA prints.
  - f. Users will be notified via email when the print is complete.
  - g. Users can pick up prints outside of the MILL during open hours of operation.
- E. The MILL strongly encourages all users and staffers who plan on physically being in our space to participate in Georgia Tech weekly asymptomatic testing, download the NOVID contact tracing app and adhere to the Georgia Tech Daily Self-Checklist before entering the space.
- a. For more information on Georgia Tech sponsored asymptomatic testing, contact tracing and daily self-checklist, please visit the site:  
<https://health.gatech.edu/coronavirus/prevention-wellbeing>

### **3. PPE Requirements:**

- A. All previous PPE requirements for specific rooms inside the MILL are still in place
  - a. I.e. All users and staffers who enter the MILL and proceed to the Processing and Measurement Room (Love 169) must wear long pants, protective eyewear and closed toed shoes.

- B. MILL staffers and users are required to provide and wear appropriate face masks. These masks must always be worn so that the staffer's / user's mouth and nose are covered.
  - a. Masks will be provided to those who forget to bring a mask with them to the MILL. These provided masks are used as a last resort as supplies are limited.
- C. The MILL now recommends that staffers and users bring their own protective eyewear for sanitation purposes. Protective eyewear will still be provided for staffers and users who do not bring their own.
  - a. Staffers and users are required to clean MILL protective eyewear with disinfectant wipes or isopropyl alcohol before returning the protective eyewear to its shelf for the next user.
    - i. Disinfectant wipes and isopropyl alcohol will be provided by the MILL.
    - ii. It is the responsibility of the MILL staffers to enforce that all protective eyewear is properly disinfected before returned to the MILL.
    - iii. Signage will be made clear and obvious to ensure that all returning protective eyewear had been disinfected.
- D. Protective gloves will be indicated only when dealing with specific samples and should not be worn when the user is touching the computer keyboard or the mouse (these areas will also be disinfected by staffers).

#### **4. Sanitization & Disinfection Protocols:**

- A. The MILL will have disinfecting wipes and isopropyl alcohol with wipes available in every room.
- B. All users and staffers are required to thoroughly disinfect any lab equipment, touchscreens, and keyboards that they come in contact with after they have completed using the device.
  - a. It is the staffers responsibility to enforce this policy and ensure that all devices are thoroughly disinfected after use.
- C. MILL lockers are considered "High Touch" surfaces and must have their combination regions disinfected after each use by a staffer or user.
  - a. It is the staffers responsibility to enforce this policy and ensure that all lockers are thoroughly disinfected after use.

#### **5. Staffing Requirements:**

- A. Mill staffers are required to follow all previous PPE requirements for specific rooms inside the MILL.
  - a. I.e. All staffers who enter the MILL and proceed to the Processing and Measurement Room (Love 169) must wear long pants.
- B. MILL staffers are required to provide and wear appropriate face masks. These masks must always be worn so that the staffer's mouth and nose are covered.
  - a. Masks will be provided to those who forget to bring a mask with them to the MILL. These provided masks are used as a last resort as supplies are limited.

- C. The MILL now recommends that staffers bring their own protective eyewear for sanitation purposes. Protective eyewear will still be provided for staffers who do not bring their own.
  - a. Staffers are required to clean MILL protective eyewear with disinfectant wipes or isopropyl alcohol before returning the protective eyewear to its shelf for the next user.
- D. When staffing the MILL, staffers are to occupy the staffing zones present in each room
- E. If a staffer is unable to occupy a zone without exceeding the maximum occupancy of a particular room, the staffer must move to an unoccupied zone in another room or to the Love 175 conference room.

## **6. Signage Requirements:**

- A. Tape will be placed on the floor of the MILL to indicate the different zones that have been created to ensure that social distancing is maintained.
  - a. It is required that staffers and users remain in the zones of the equipment they have signed up for to the best of their ability.
- B. Signage enforcing new face covering policies and social distancing procedures will be present when entering the MILL and while in the MILL.
- C. All pieces of MILL equipment (including lockers) will have signage reminding staffers and users to thoroughly disinfect any surfaces that were touched before leaving the MILL.
- D. Signage will be present by MILL eye protection reminding all staffers and users to thoroughly disinfect the safety glasses before returning them.
  - a. Additional signage encouraging staffers and users to bring their own eye protection for the MILL will also be present.
- E. QR codes will be available with a link to this document so that users and staffers can refresh on the new Health & Safety procedures of the MILL when entering and while in the space.