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<th><strong>Author</strong></th>
<th>C. Fisher</th>
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**Reason for SOP**
To define the policies, guidelines and procedures specific to the CMHT labs to ensure all operations are in compliance with governmental and university requirements regarding lab operations during the COVID-19 pandemic; minimize the risk for the transmission of COVID-19 in the lab while maintaining the current standards of safety for all other hazards in the lab.

**Approved by (supervisor)**
S. Habibi

### Definitions

<table>
<thead>
<tr>
<th><strong>Acronyms</strong></th>
<th><strong>CMHT – Centre for Mechatronics and Hybrid Technologies</strong></th>
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<tbody>
<tr>
<td>SOP</td>
<td>Standard operating procedure</td>
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<tr>
<td>WS</td>
<td>Workstation</td>
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<td>WA</td>
<td>Work Area</td>
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<td>RMM</td>
<td>Risk Management Manual</td>
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<td>JHSC</td>
<td>Joint Health and Safety Committee</td>
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<td>EOHSS</td>
<td>Environmental and Occupational Health Support Services</td>
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<td>EPA</td>
<td>Environmental Protection Act</td>
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<td>OHSA</td>
<td>Occupational Health and Safety Act</td>
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| **CMHT Management (contacts)** | cmht@mcmaster.ca, Saeid Habibi-Director (905) 518-6561, Cam Fisher-Operations (905) 407-9120 |

### Description of the Task

<table>
<thead>
<tr>
<th><strong>Location and time of work</strong></th>
<th>All Activities at the CMHT lab</th>
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<tr>
<td><strong>Individuals involved</strong></td>
<td>All researchers who access the CMHT lab</td>
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<tr>
<td><strong>Equipment and supplies required</strong></td>
<td>Soap, hand sanitizer, disinfectant</td>
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<tr>
<td><strong>Personal protective equipment required</strong></td>
<td>Medical Masks (surgical type) if distancing cannot be maintained</td>
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### Procedures for Safe Working in the Lab

#### A) Principles:

1. **Essential Work:** One of the key principles in reducing the risk of spreading COVID-19 is limiting contact. As directed by the university, access to the CMHT lab will only be granted for the purpose of carrying out activities that can only be performed in the CMHT lab.

2. **Safety standards must be maintained:** No procedures related to COVID-19 take precedence over the existing safety requirements of the lab. If conducting the work/operation in the lab cannot be done safely while following these procedures for COVID-19, the work/operation is **not** to be done.

3. These procedures and the efforts of the University are intended to reduce the chance of spreading COVID-19. There remains a risk to anyone who accesses these facilities to contract COVID-19 – Anyone who is not comfortable in coming to the CMHT labs should not feel compelled to come.

4. Every person who comes to the CMHT labs must complete the “McMaster University Workplace COVID-19 Employee/Researcher Checklist” ([link](https://hr.mcmaster.ca/app/uploads/2020/05/Workplace-COVID-19-Lab-Worker-Checklist.pdf)) daily before entering the lab, anyone who is advised to stay at home based on this checklist is not permitted to enter the facilities. If at any time an individual is feeling ill, they are to stop their work at the CMHT labs and return home or seek medical attention.

5. As it is not possible to predict when someone may feel ill and thus not able to return to CMHT labs, it is a requirement that all work be left in a safe and secure state at the end of the day in case you cannot return. It is also advised that items that you may require at home not be left at the lab in case you are not able to return to retrieve them. Be aware that at any time the government or university may require the closing of the lab with little notice.

6. All personnel who access the CMHT labs must have already had the appropriate training for the equipment they plan to use, no hands on training in the lab is allowed.

7. All personnel who access the CMHT labs must have been trained on this SOP and acknowledge that they agree to follow these procedures before they will be authorized to enter the lab. A copy of this SOP is posted at the lab entrance.

8. With the limited number of people accessing the MARC facility it should be recognized that researchers may find themselves working alone more often. If an activity cannot be performed safely alone then it is important to schedule sufficient people to be present in the lab before the activity is performed. All persons accessing the CMHT lab must abide by McMaster’s working alone policy ([link](https://hr.mcmaster.ca/app/uploads/2019/01/RMM-304-Working-Alone-Program-February-2011.pdf)).

#### B) Lab Access

1. Only personnel who have been authorized to use the lab by the CMHT management are allowed access to the lab and only those activities that they have been authorized to perform may be conducted.

2. In order to minimize the number of people in the lab, all work in the lab must be scheduled in advance. Only access the CMHT lab on the days and times that have been approved on the
schedule. Once you have completed your work in the lab you must leave the lab – no activities that can be performed remotely are to be performed in the lab – researchers should plan to use the time in the lab to setup and carry out their experiment and then leave to process the results from home.

3. Access to the lab requires an activated access card – if you do not have your card with you do not expect access – Do not share your access card, open the door to let other enter or leave the lab door propped open and un-attended.

4. The CMHT offices remain closed for working, but are available for personnel to store their personal belongings and for breaks/lunch periods for people who are working in the lab. Physical distancing must be maintained when visiting the office. Note it may not be possible to access all desks and maintain physical distance. The conference room and spare cubicles can be used if your desk is not accessible, such use is for the day and the area should be left clear at the end of the day.

C) Physical Distancing

1. Observe proper physical distancing when traveling to/from the facilities.

2. Follow all posted signs in the common spaces at MARC – note there will be restrictions on movement throughout the MARC building and some facilities may be closed.

3. Maintain a physical distance of 2m from all other people at MARC:
   a. Step to the side when passing people in corridors
   b. Wait for the way is clear if entering a space that does not have sufficient room to maintain your distance.
   c. When transiting through the lab, be aware of others using the space, it may be necessary for someone to shift their position to allow you to pass. Be courteous to others who may need to pass your workspace and shift positions if needed.
   d. Look through door widows (or knock if there is no window) before opening doors to ensure there is no one directly on the other side. If someone is on the other side, the person entering should yield and allow for 2m distance as the room occupant exits.
   e. Take turns when accessing common areas (such as the sink) and maintain your distance

4. The CMHT lab has defined a number of “Work Stations” and “Work Areas” – when you are scheduled for access to the lab you will also be assigned one Work Station or Work Area. These have been selected to ensure a workspace with sufficient distance between adjacent workspaces to provide the required physical distancing.
   a. Work Stations have a desk and chair and are suitable for one person to perform bench work or monitor a testing operation. Only one person is allowed in any work station at any given time.
   b. Work Areas are larger workspaces for working on larger projects and vehicles. If required, a second person may enter the work area but physical distancing must be maintained.

5. The experimental labs (room 128, 129, 130 and 131) can have a maximum occupancy of 2 people for setup and maintenance of the equipment, care must be taken to maintain physical
6. If using one of the CMHT vehicles, only one person is allowed in the vehicle. The driver is responsible for safe operation of the vehicle, no use that requires the driver to multi-task in running experimental equipment or collecting data while driving is permitted. All drivers must read and follow the “Vehicle Use Guidelines During the COVID-19 Pandemic” https://hr.mcmaster.ca/app/uploads/2020/05/Vehicle-Guidelines-COVID-19.pdf

D) Cleaning and Sanitization

1. Every person who enters the lab must wash their hands (every time they enter the lab) – please follow the hand washing guidelines posted in the lab. The lab is equipped with a sink and hand soap – this is the preferred method of washing your hands. There are also dispensers for hand sanitizer distributed throughout the lab.

2. Frequent hand washing throughout the day is recommended – where possible wash your hands every 30 minutes.

3. A spray bottle of sanitizing solution will be provided at each work station – the sanitizer is listed as effective for the COVID-19 virus. Each high touch area/desk surface should be disinfected before beginning work and before leaving for the day. Directions for the proper use of the disinfectant is printed on the bottle. When cleaning electronic devices apply the sanitizer using a paper towel rather than directly spraying the equipment.

4. For most labs a local set of tools has been supplied – where possible these tools should be used in the lab where they are located. Shared tools must be cleaned and disinfected before and after each use. If using a shared tool wash hands before fetching the tool and keep the tool at your work area/workstation until finished or before leaving for the day (which ever is sooner) – ensure tools returned to storage are cleaned and disinfected. Assume any tool not in its proper storage area as potentially contaminated and disinfect before using. Any shared equipment should be disinfected before and after use.

5. The door handle to the lab is disinfected at least once a day by the building cleaning staff. A spray bottle of the disinfectant is located near the main door and may be used for additional cleaning.

6. With the increased cleaning and hand washing there will be additional waste generated – if a garbage pail is full, please remove the liner and secure the liner with a knot and place it by the lab door or directly in the waste bin outside MARC. Replace the liner with a new liner (liners are stored in the cabinet beneath the sink in room 133). All lab users are responsible to keep the CMHT lab clean.

7. If any supplies (soap, hand sanitizer, disinfectant and paper towel) are low, please either replenish (most supplies can be found under the sink in room 133) or notify the CMHT management.

8. Take care to keep hand sanitizers from heat sources and ignition sources to prevent fire. (note: storing hand sanitizer in a vehicle parked in the sun is not allowed).

9. If visiting the CMHT office (to store personal items for the day or to eat lunch) restrict your activities to a single desk area. A spray bottle of sanitizing solution will be provided in the office area – the sanitizer is listed as effective for the COVID-19 virus. Each high touch area/desk surface should be disinfected before and after use. Directions for the proper use of the
disinfectant is printed on the bottle. If eating, store your personal items away from your eating area, wash hands before eating and clean area after eating – remove all food items by the end of the day.

E) Personal Protective Equipment (PPE)

1. There are many operations at CMHT that requires the user to wear proper PPE – if the job requires PPE you must use the proper PPE or not do the job. Unless you have been assigned personal PPE, use the sanitizer to clean the PPE before use.

2. If any operation requires people to be closer than 2m, then a medical face mask (surgical style) must be worn. The only time people should be closer than 2m is if the task requires two people for safety reasons (such as moving a large piece of equipment). Any task that requires people to be less than 2m for more than 15 minutes in a day is not permitted in the lab. A supply of face masks are located at the entrance to the lab, additional supplies are stored under the sink in room 133 – notify CMHT management if supplies are low.

3. If anyone chooses to wear a mask at other times, this is permitted but please note, physical distance of 2 m is to be maintained even if you are using a mask except as stated above.

4. As the lab is equipped with sinks and soap as well as hand sanitizer, per the university’s policy, gloves are not required nor provided – CMHT gloves should only be used where the task requires the use of gloves.

F) Emergencies

1. In the event of an emergency, the emergency should be addressed with the highest priority even if physical distancing cannot be maintained – once the emergency has been contained, physical distancing should resume.

2. In the case of a fire or dangerous spill, exit through the nearest exit, trigger the alarm pull station on your way out of the building.

3. For life threatening emergencies call 911 – if possible have a bystander wait at the MARC entrance to direct emergency services.

4. For all other emergencies call campus security at 905-522-4135 or 905-525-9140 ext 24281
References

1. OHSA/ regulations
2. EPA and Municipal environmental regulations
3. RMM #100 McMaster University Environmental Health and Safety Policy
4. Material Safety Data Sheets (MSDS)
5. RMM #300 Safety Orientation and Training Program
6. RMM #301 Standard Operating Procedures
7. Guidelines for Building Evacuations During COVID-19 Pandemic
8. Guidelines for Travelling on Campus
9. Guidelines/Protocols for Face Coverings and Masks During COVID-19 Pandemic
10. Guidelines for Research Lab Use During the COVID-19 Pandemic
11. Vehicle Use Guidelines During the COVID-19 Pandemic