ROBOTICS LABORATORY SAFETY

S. & R. Sharf CIM Laboratory
Room 21 SEB

• In case of emergency, call the O.U. Police at 911 from any phone. Note that a campus phone is located in the hallway across from the entrance to the Sharf CIM laboratory and to the right of the entrance to room 23 SEB.

• A fire alarm is located in the hallway across from the entrance to Sharf CIM laboratory and to the left of the entrance to room 23 SEB.

• If any equipment in the Sharf CIM laboratory does not appear to be operating properly or malfunctions, stop using it immediately and report the problem to:

  1) Course instructor (room 652 SEB, phone 248-370-2211 or extension 2211 on a campus phone), and/or

  2) Technicians in the SECS Electronics Shop (room 145 Dodge Hall, phone 248-370-2223 or extension 2223 on a campus phone).

• Nobody is allowed to operate any of the robots in the Sharf CIM laboratory before receiving instructions on proper operating and safety procedures.

• The robots in the Sharf CIM laboratory may not be operated without proper supervision being present.

• Before turning-on a robot’s controller, always inspect the robot and its work envelope to make sure it is in proper working order. Do not turn-on the robot’s controller if a potential problem appears to exist.

• Make sure all personnel are outside of the robot’s work envelope before turning-on its controller. Never place any part of your body into a robot’s work envelope when it is turned-on.

• One person must be near and ready to push one of the red EMERGENCY STOP buttons at all times whenever a robot’s controller is on. The red EMERGENCY STOP buttons (any one will stop the robot) are located:

  1) On the front panel of the robot’s controller (Fanuc robots only).

  2) On the robot’s teach pendant (Fanuc robots and Kuka robot).

  3) Box next to robot controller PC (PowerCube robot).

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• Never try to stop a robot’s motion using your body. The only way to stop a robot’s motion is by pushing one of the red EMERGENCY STOP buttons.

• Test any robot program being run for the first time in the following manner:

  1) Using slow motion speed, single step the program continuously for at least one full cycle.

  2) Using slow motion speed, test run the program continuously for at least one full cycle.

  3) Using the programmed motion speed, test run the program for at least one full cycle.

• Note that a robot’s path will change when its speed is changed. Test run any program at its new speed for at least one full cycle whenever the robot’s motion speed is changed.

• Never assume that a robot program is complete if the robot is not moving. The robot could be waiting for an input signal that will permit it to continue its motion.

• No food or drink is allowed in the Sharf CIM laboratory.

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