NMT - NIOSH Simulation Rig

Located in MSEC 236

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Powering On

Assuming the Simulation Rig was correctly shut down and powered off, this procedure is used to turn everything back on.

1. Plug the surge protector ("power strip") into the wall

2. Flip the surge protector's switch to "reset" (or ON)
   At this point, the cooling fan for the silver power supply should begin spinning

3. Power on the Raspberry Pi by pressing the button on its external power switch (shown below)

4. Move the mouse around as the Raspberry Pi powers on

5. From the start menu in the bottom left corner of the desktop, mouse over "other programs", and select the top PyCharm program option.

6. If the "V4_serial_reader.py" program is not already open, double click on its name in the box on the left side of the screen to open it.

7. Ensure the drop-down menu next to the green triangle play button at the top of the screen says "Current File".

8. Click the green play button to start the program.
   After completing its start-up procedure, the program will create and update a spreadsheet with all of the data it collects.

9. Once finished with the program, click the red square stop button at the top of the screen to end the data collection.

10. Enter anything except for "del" into the terminal at the bottom of the screen and press enter to close the program. Or enter "del" to delete the data.

Powering Off

Proper shut-down procedure is necessary to prevent damage to the software and electronics.

1. Close the PyCharm program with the X in the top right corner

2. From the start menu in the bottom left corner of the desktop, select "power off".

3. After the screen goes black, wait for 20 seconds.

4. Press the power button on the Raspberry Pi's external power switch (as shown in step 3 of the Powering On instructions)

5. Flip the switch on the surge protector ("power strip") to "OFF"
   All fans will stop spinning.

6. Unplug the surge protector
   For storage, the surge protector can be plugged into itself.

Intake Fan Control