Contribution ID: **5**   Type: **Instrumentation/Hardware**

Lab Weather Station

Monday 23 August 2021 11:30 (15 minutes)

Sensitive experiments often require strict regulations to ensure that the surrounding environment is clean. The goal of the project is to record environmental variables continuously over years with the use of various sensors such as a particulate counter or pressure differential sensor, to then upload the data to a server using a Raspberry Pi. Using various python submodules specific to each sensor, properties such as temperature, pressure differential, humidity, and dust levels are monitored and uploaded to a database at periodic time intervals. This would allow the user to verify whether the lab has a positive pressure differential relative to the outside to keep the dust out and to correlate when and how the dust particles enter. A 3d-printed case has been designed to package all the components together.

Author: BELAIR, Felix (McGill University)

Presenter: BELAIR, Felix (McGill University)

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