**Design**

<https://www.instructables.com/id/Low-Cost-Spirometer/>

Main Materials:

* PVC pipe
* Plastic tubing
* Pressure Sensor: most implementations like the instructables link above use this ASDX Silicon Differential Pressure Sensor <https://eu.mouser.com/Honeywell/Sensors/Pressure-Sensors/Board-Mount-Pressure-Sensors/ASDX-Series/_/N-6g7qs?P=1yzrzfxZ1z0sf9t>

But very expensive ($50+). Differential pressure sensors convert a pressure difference to a voltage, so they are convenient.

Alternative is to use two of these: <https://learn.adafruit.com/adafruit-mprls-ported-pressure-sensor-breakout>

They are ported, which is what we need. Would need to read the two pressure values individually instead of having one sensor directly outputting the delta pressure.

**Flow Chart/Diagram**

In folder

**Pseudocode**