**Documentation should be completed whenever workshops are held, design changes are made, or progress/set-backs are encountered. List the members involved, note the date, and circle the team this documentation specifically involves. Save a copy in this same folder with the date in the title EX: “8/5/19 Documentation” so that team leads can review.**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Members:**   |  | | --- | | **Jordan Hybki** | |  | |  | |  | |  | | **Date:**  **09/30/19**   |  | | --- | |  | |

**Team (check circle):**

|  |  |  |
| --- | --- | --- |
| **Electrical:**   * **Hardware** * **Software** * **Actuation** | **Mechanical:** | **Biomedical:**   * **Ergonomics** * **Sensors** |

**Assignment/Task:**

Develop Arduino Script for the pressure sensor.

**Notes:**

Tried to write the graphs found in the Datasheet for pressure sensor. A calibration would show from:

* **10% to 90% of the Output Voltage (supply) over Pressure [Output (volts) = [0.8 \* (3.3 Volts)]/[100 psi - 0.36 psi] \* (Pressure.(applied) - (0.36 psi)) + 0.10 \* (3.3 Volts)]**
* **5% to 95% of the Output Voltage (supply) over Pressure [[0.9 \* (3.3 Volts)]/[P.(max) - 0.36 psi] \* (Pressure.(applied) - 0) + 0.05 \* (3.3 Volts)]**
* **Pressure over time graph**

It doesn’t matter what algorithms is written to measure pressure or different calibration scenarios if the voltage remains unchanged if input is added. Debugging the output for voltage resolution results in no change in voltage when pressure is added to the pressure sensor (with pump). Sticking at 0.48 volts, which is what is expected when no input is added (min voltage). It may be the case that the pressure sensor is broken.

**Unresolved Issues:**

Another pressure sensor could be useful to check if the sensor is the issue, if the voltage resolution remains unchanged with a new sensor. More time would be needed to find the issue with the code.