Names and NET IDs

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Acquired Voltages

Calibration Data 1					
Volume / Voltage Data File Name:					
Volume (mL)	300	400	500	600	700
Voltage (V)					
Calibration Data 2					
Volume / Voltage Data File Name:					
Volume (mL)	460	480	500	520	540
Voltage (V)					

Volume Estimates

Coefficient Set 1							
Volume as f(Voltage) Coefficient File Name:							
Act. Vol. (mL)	300	450	500	550	700	800	900
Calc. Vol. (mL)							
Coefficient Set 2							
Volume as f(Voltage) Coefficient File Name:							
Act. Vol. (mL)	300	450	500	550	700	800	900
Calc. Vol. (mL)							

Equations

Vol. as f(Voltage), Cal. 1:	
Vol. as f(Voltage), Cal. 2:	
Voltage as f(Pres.), Cal. 1:	
Voltage as f(Pres.), Cal. 2:	

Questions to Answer

(1) How tall is the tallest column of fluid that can be measured by a 5 psi pressure sensor? Might there be a better sensor for this experiment?

(2) What might be the cause of differences between the two equations for volume as a function of voltage, and what conclusions can you draw from these discrepancies about calibrating a sensor?

(3) Given the volume estimates determined above from the `ReadVol000`, what might be the cause of differences the calibration curves have in reading the same volume, and what conclusions can you draw from these discrepancies about calibrating a sensor?

(4) For each of your two Voltage vs. Pressure equations, how close is your pressure sensor calibration to the 0.01 V/psi listed in the specifications?

(5) Describe when you would want to use the narrow-range calibration and when you would want to use the long-range calibration. Support your conclusion with evidence generated during the experiment.

(6) What did you like best/least about this lab? What changes should be made to improve the lab?