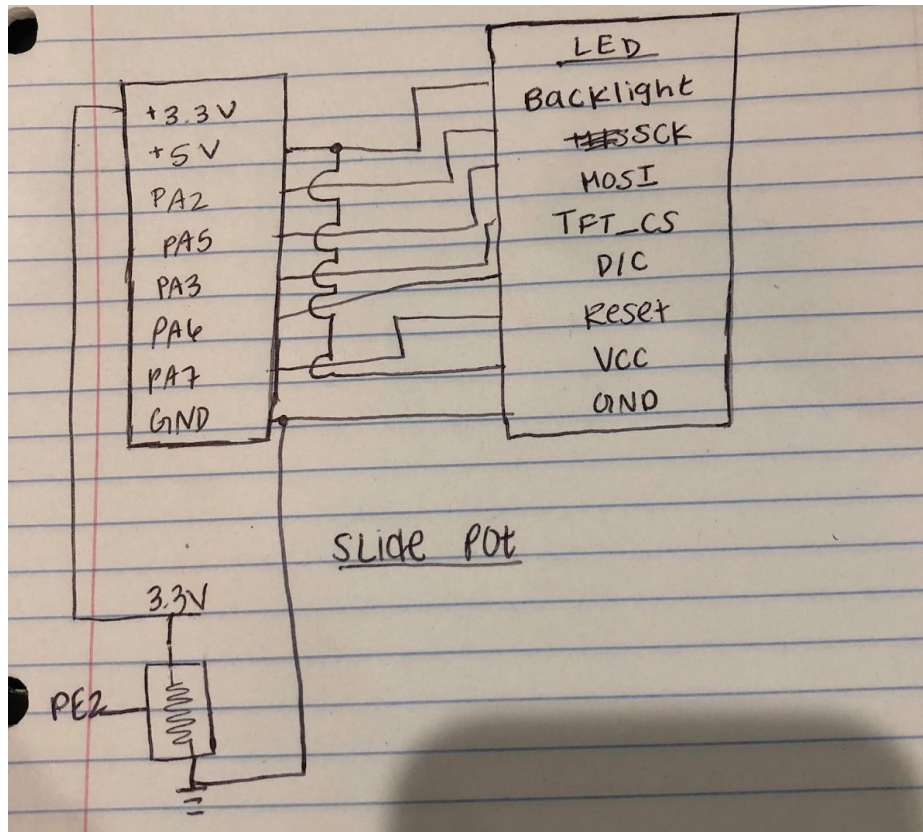
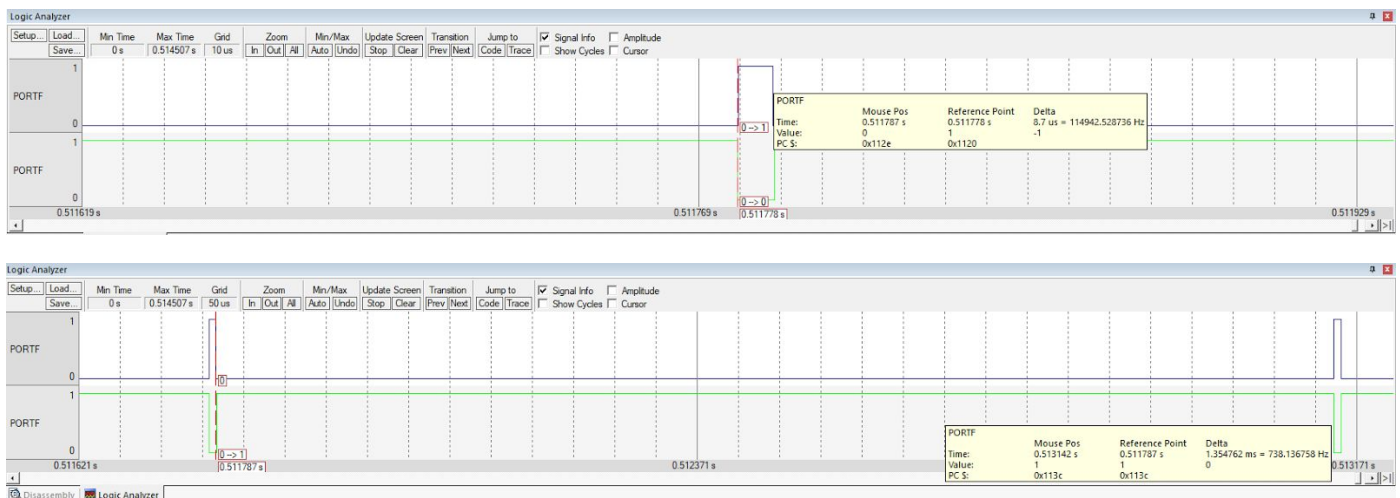


Lab 8 Deliverables

Circuit Diagram:



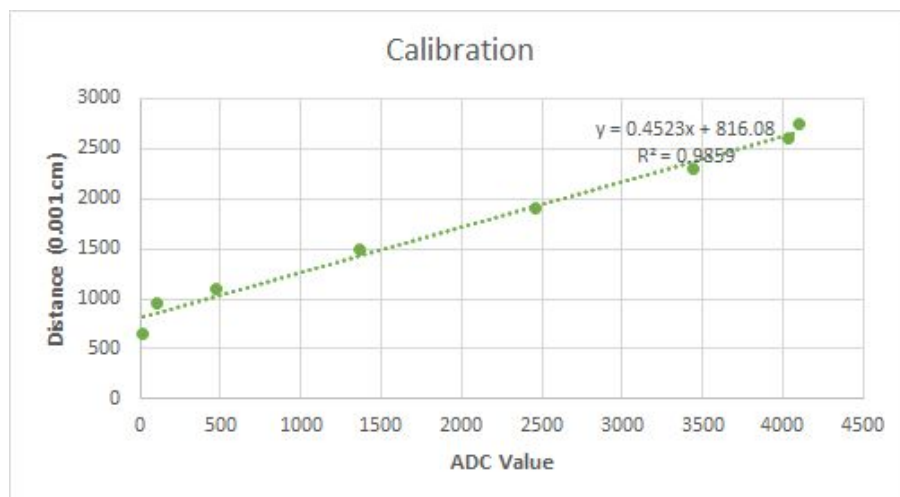
ADC/LCD Execution Profile:



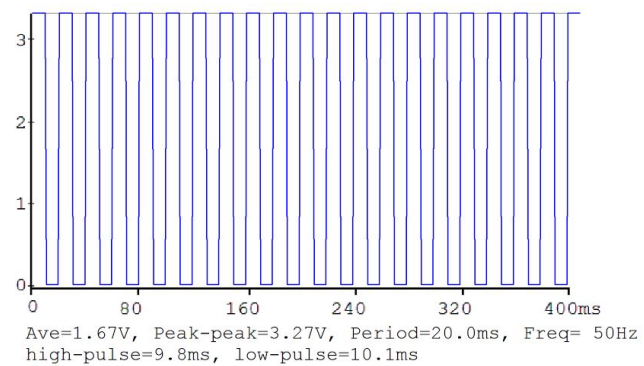
Top: ADC execution profile showing an execution time of 8.7 microseconds.
Bottom: LCD execution profile showing an execution time of 1.35 milliseconds.

Calibration Table/Graph:

Position	Analog Input	ADC Sample
0.65 cm	0.00 V	15
0.95 cm	0.06 V	100
1.10 cm	0.37 V	1100
1.50 cm	1.09 V	1360
1.90 cm	1.96 V	2460
2.30 cm	2.76 V	3435
2.60 cm	3.23 V	4029
2.75 cm	3.29 V	4095



Sampling Rate Verification:



Accuracy Calculation:

True Position	Measured Position	Error
.65	.77	.12
1.2	1.138	.062
1.7	1.757	.057
2.4	2.393	.007
2.7	2.601	.099

Average Error: 0.069 cm