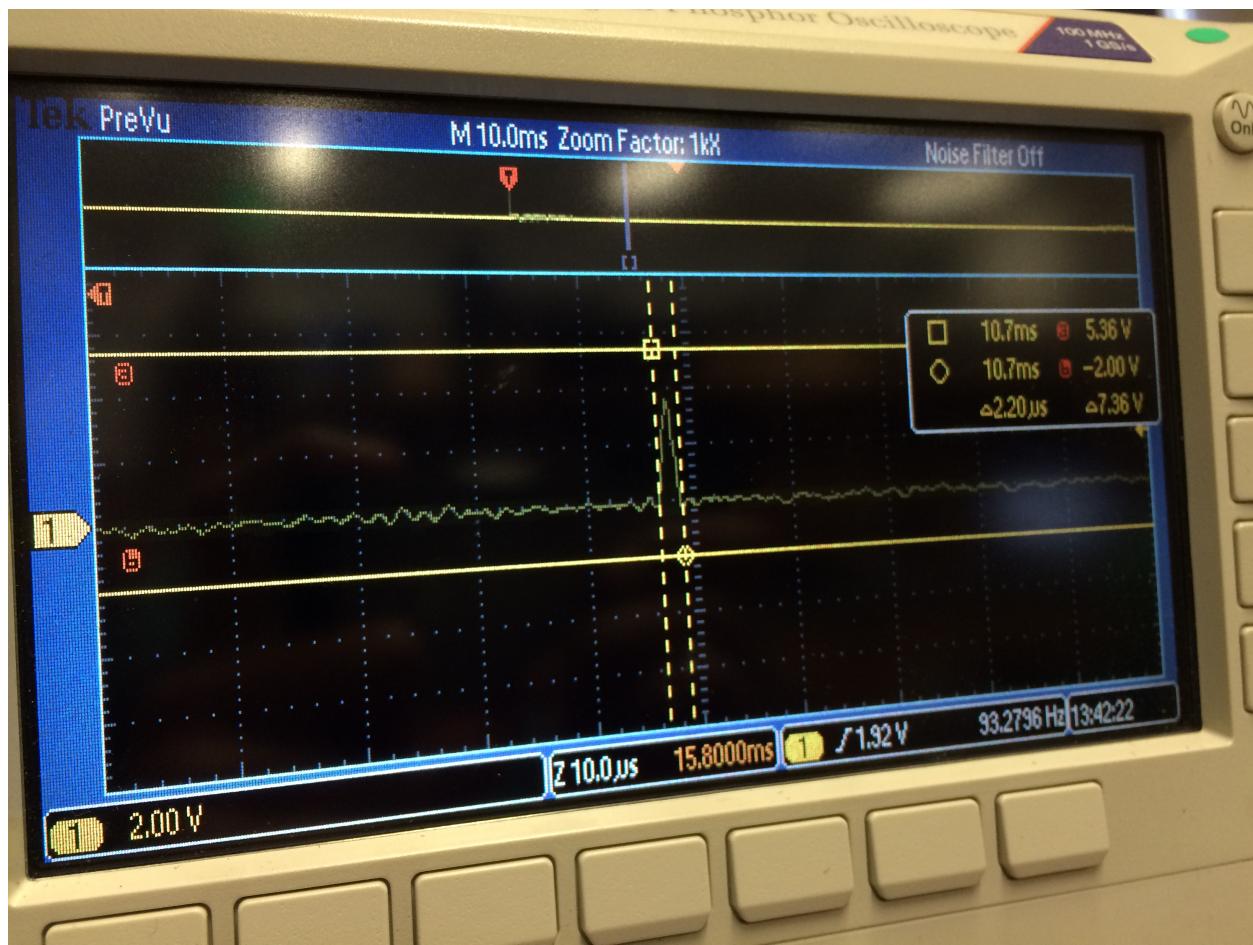
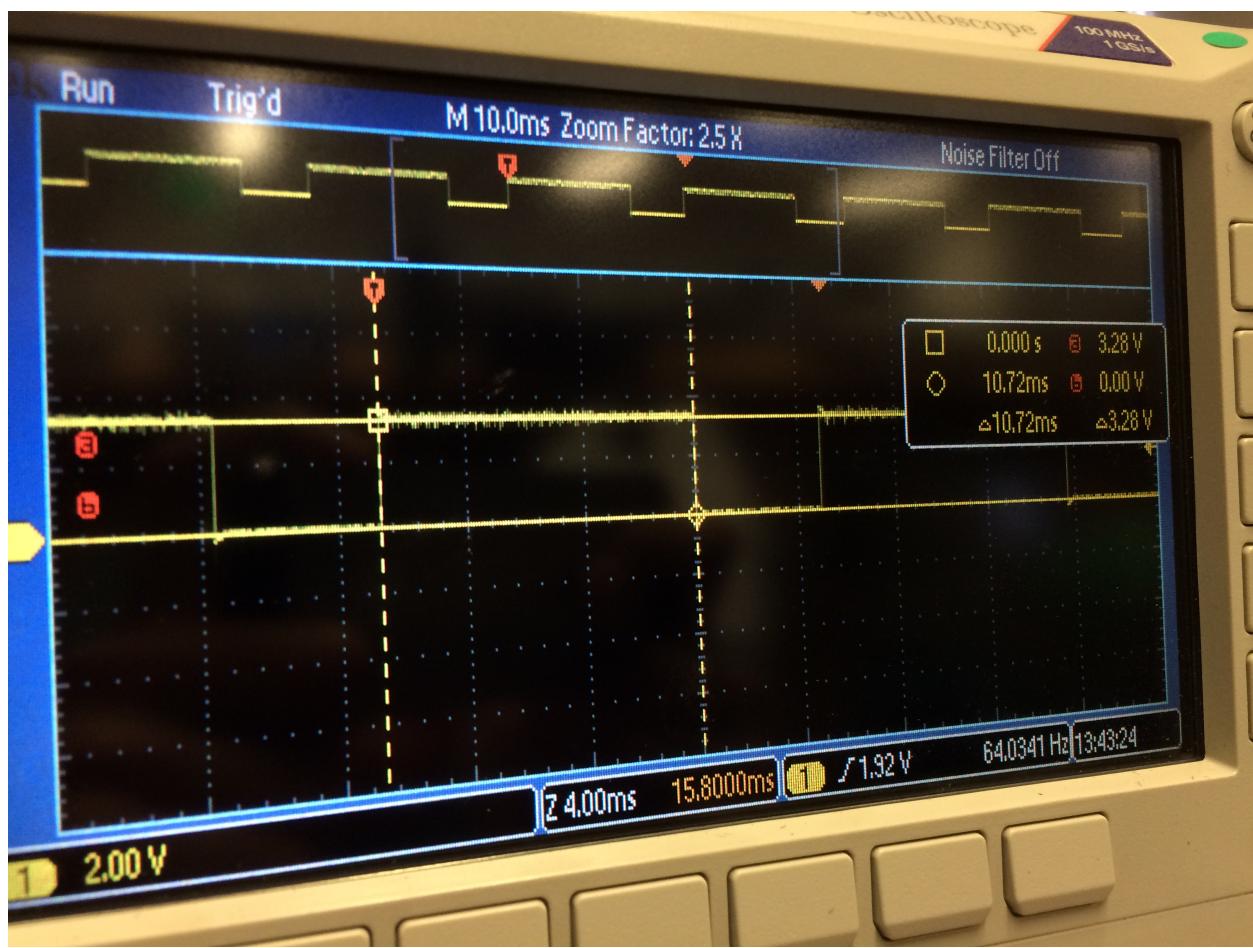


Heartbeat

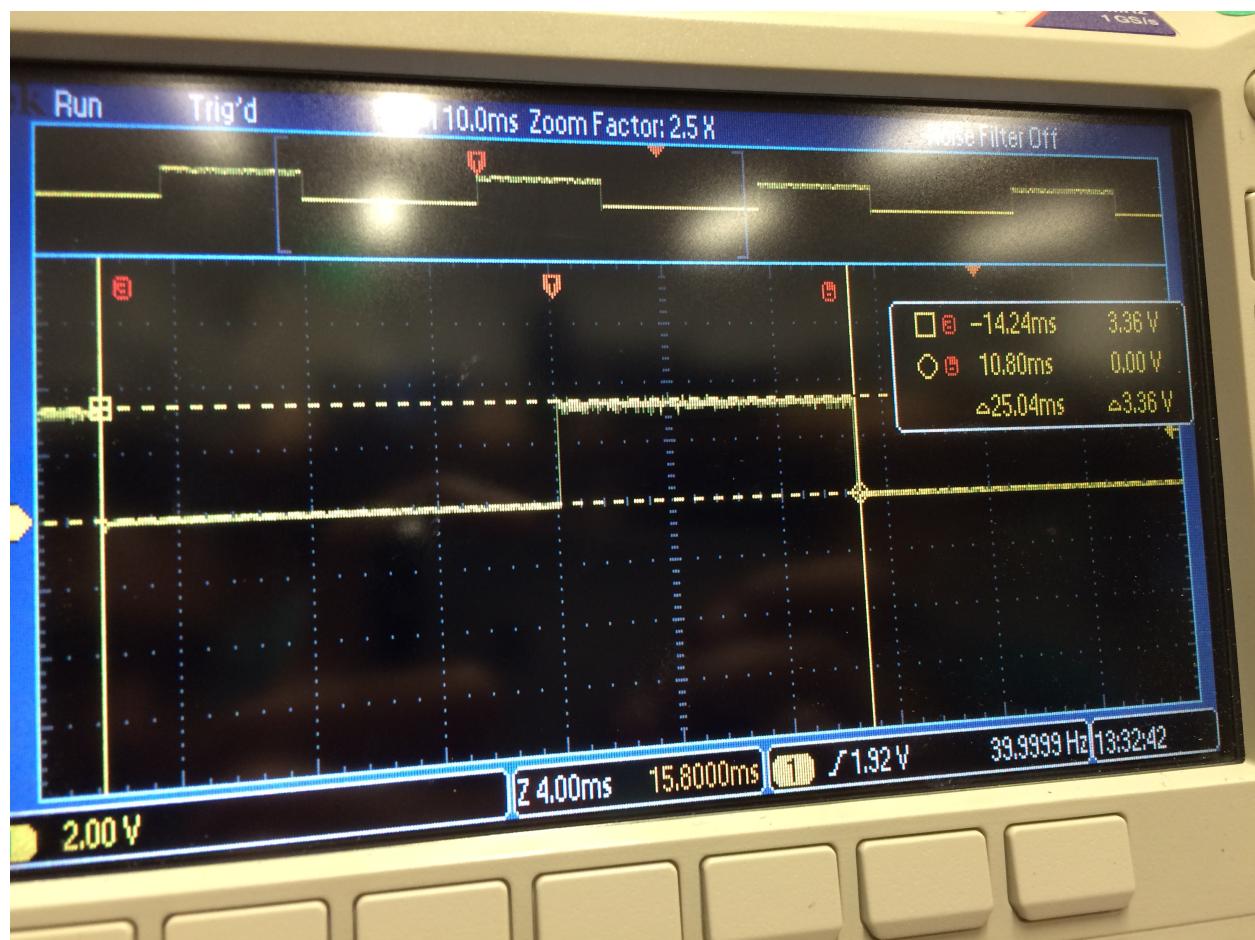


Convert



LCD

Position	Analog Input	ADC Sample	Correct Fixed-Point	Measured Fixed-Point Output
0.1 cm	12	0.007	100	105
0.5 cm	1112	0.888	500	490
1 cm	2345	1.89	1000	998
1.5 cm	3640	2.92	1500	1500
1.7 cm	4095	3.29	1700	1650



Sampling rate 40 Hz

True Position	Measured Position	Error
0.3 cm	0.29 cm	0.01 cm
0.6 cm	0.602 cm	0.002 cm
1.0 cm	0.995 cm	0.005 cm
1.2 cm	1.198 cm	0.002 cm
1.5 cm	1.521 cm	0.021 cm

Average error = 0.008