







%% NyquistSinExample.m

t100 = load('C:\Users\Dalton\Documents\ValvanoWare\ee445l\_projects\Lab\_9\ADC\_PrintOut100Hz.dat');

figure(1);

plot(1:length(t100),t100);

title('f0 = 100 Hz, fs = 1000 Hz');

xlabel('t (seconds)');

ylabel('cos(2\*pi\*f0\*t)');

hold off;

%%

t500 = load('C:\Users\Dalton\Documents\ValvanoWare\ee445l\_projects\Lab\_9\ADC\_PrintOut500Hz.dat');

figure(2);

plot(1:length(t500),t500);

title('f0 = 500 Hz, fs = 1000 Hz');

xlabel('t (seconds)');

ylabel('cos(2\*pi\*f0\*t)');

hold off;

%%

t1000 = load('C:\Users\Dalton\Documents\ValvanoWare\ee445l\_projects\Lab\_9\ADC\_PrintOut1000Hz.dat');

figure(3);

plot(1:length(t1000),t1000);

title('f0 = 1000 Hz, fs = 1000 Hz');

xlabel('t (seconds)');

ylabel('cos(2\*pi\*f0\*t)');

hold off;

%%

t2000 = load('C:\Users\Dalton\Documents\ValvanoWare\ee445l\_projects\Lab\_9\ADC\_PrintOut2000Hz.dat');

figure(4);

plot(1:length(t2000),t2000);

title('f0 = 2000 Hz, fs = 1000 Hz');

xlabel('t (seconds)');

ylabel('cos(2\*pi\*f0\*t)');

hold off;

Procedure 6

Fluke myADC

25° C 24.98°

25° C 24.91°

25° C 24.96°

25° C 24.94°

25° C 24.88°

25° C 24.90°

25° C 24.92°

25° C 24.97°

25° C 24.95°

25° C 25.01°

Average accuracy (with units in °C) = (1/n) ∑ni=1 |xti – xmi|

7. *Reproducibility*: Place the thermistor in either crushed ice/water, room air, or in an insulated container of water,

and record 10 independent temperature measurements. Calculate the standard deviation of these data and report S

(estimation of σ) as reproducibility.