% EE3370 Project 1

% MATLAB code for Project 1

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clc % Clear screen

clear % Clear all variables

A = 3; f= 1000; omega = 2\*pi\*f;

angle = degtorad(33); T=1/f;

t=linspace(-3000\*T,3000\*T,1000);

x\_t=3\*cos(omega\*t+angle);

subplot(4,1,1)

plot(t,x\_t, 'linewidth',2);grid on

subplot(4,1,2)

u\_t=heaviside(t);

plot(t,u\_t, 'linewidth',2);grid on

subplot(4,1,3)

plot(t,x\_t.\*u\_t, 'linewidth',2);grid on

subplot(4,1,4)

u\_t1=heaviside(t-1);

f\_t=cos(omega\*t).\*sin(omega\*t).\*u\_t1;

plot(t,f\_t, ‘linewidth’, 2);grid on