Matlab Code:

t=0;

tstart=tic; %start timer

e=plot(0,0,'r-'); %start plot

hold on %plot over previous values

while(s.BytesAvailable > 0)

fread(s,1); %Clear Buffer

end

while(1)

while(s.BytesAvailable<2)

end

dat=fread(s,1,'int16'); %get data from C

t=toc(tstart); %keep track of time

dat=(-.020979)\*dat+55.923; %convert data to

plot(t,dat,'o'); %distance from sensor

pause(0.01); %and plot

while(s.BytesAvailable > 0)

fread(s,1); %clear buffer

end

end