[\_LabTasks.c](https://github.com/xanatower/ELEN90058_Signal_Processing/blob/master/Workshop%202/SPWS2-echo/src/_LabTasks.c" \o "_LabTasks.c) for PART B

#include "SPWS2-echo.h"

*// Input samples*

float LeftInput;

float RightInput;

*// Output samples*

float loa, lob, loc;

*// Declare any global variables you need*

int D = 1760;

float alpha\_a = 0.75;

float alpha\_b = 0.6;

float alpha\_c = 0.75;

float x[1760] = {0.0};

float y\_b[1760] = {0.0};

float y\_c[1760] = {0.0};

int current = 0;

void EchoFilter(void)

{

*// TODO: Implement echo filter (a)*

*//loa = LeftInput;*

*//y[n] = x[n] + alpha\*x[current] becuase x[current] is from the last sample period*

loa = LeftInput + alpha\_a\*x[current];

*//y\_b[]*

y\_b[current] = LeftInput - alpha\_b \* y\_b[current];

*// TODO: Implement echo filter (b)*

lob = y\_b[current];

*//lob = LeftInput;*

y\_c[current] = x[current] - alpha\_c \* LeftInput + alpha\_c\*y\_c[current];

*// TODO: Implement echo filter (c)*

loc = y\_c[current];

*//update the sample*

x[current] = LeftInput;

y2[current] = lob;

current++;

*//printf("%d\n", current);*

current = current%1760;

}