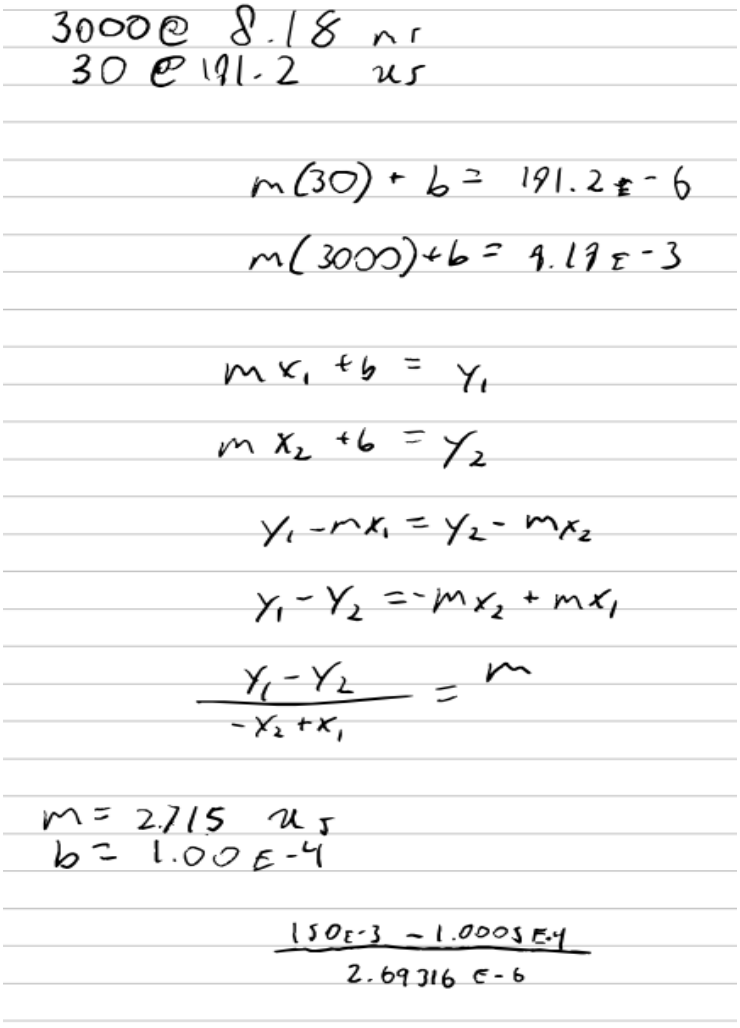
Assignment 1

Group Members
Carson Bolinger
Roberto Solis
Carson Wagner

Objective: To get familiar with the LPC1769 LPCXpresso board, MCUXpresso IDE, and the oscilloscope. We will be given a variety of tasks such as measuring duty cycle, frequency, and more by using the MCUXpresso software to set certain measurements using knowledge from the Microprocessor Systems class.

Step 2:



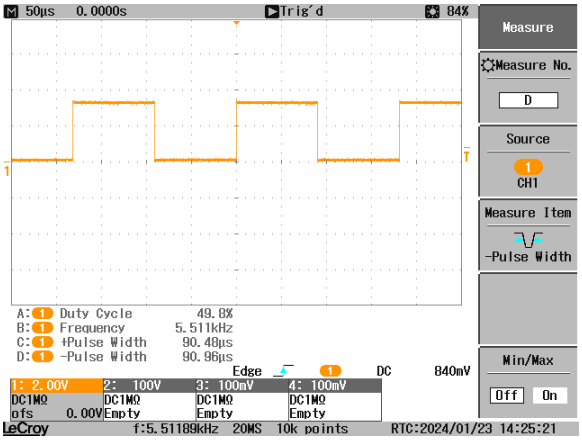
Final Code:

```
==============================================================================
3 Name : ProjectOne.c
4 Author : $(Carson Bolinger, Carson Wagner, Roberto Solis)
5 Version : 0.0
6 Copyright : 2024
7 Description : Wait function prototype
==============================================================================
#ifdef __USE_CMSIS
#include "LPC17xx.h"
#endif
#include <cr_section_macros.h>
#include <stdio.h>
//Register initiations
#define FIO0DIR (*(volatile unsigned int *)0x2009c000)
#define FIO0PIN (*(volatile unsigned int *)0x2009c014)
//Variable initiations
float m = 0.002715;
float b = 0.1;
void wait_ms(int ms){
volatile int count;
for (count=0; count<ms; count++){
//do nothing
}
}
```

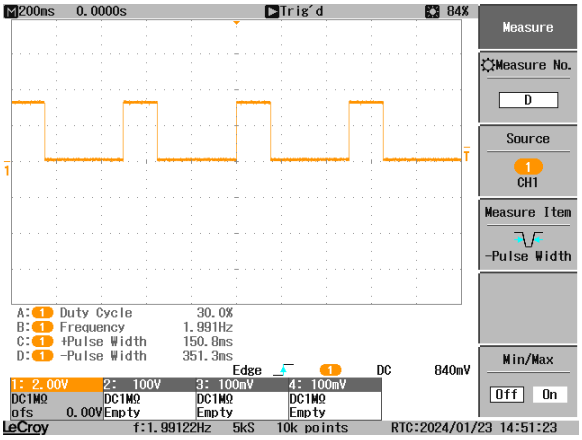
```
int main(void) {
FIO0DIR |= (1<<22);
while(1) {
FIO0PIN |= (1<<22);
wait_ms(150);
FIO0PIN &= ~(1<<22);
wait_ms(350);
}
return 0;
}
```

Oscilloscope Snapshots

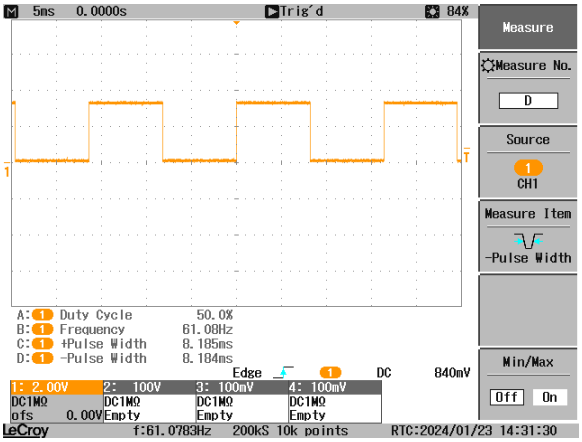
Step 1:



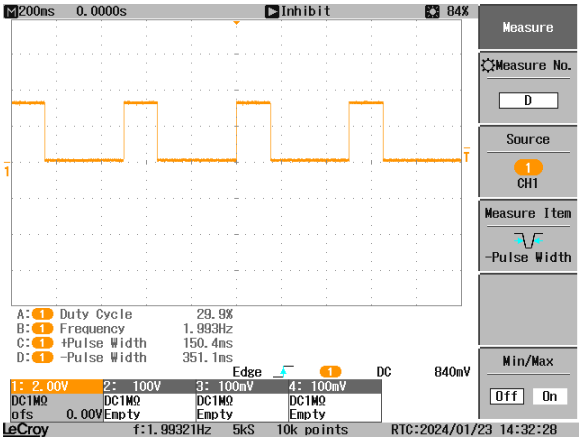
Step 5:



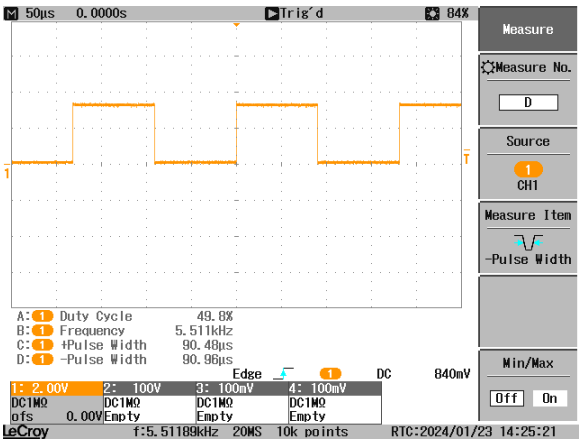
Step 2:



Step 7:



Step 3:



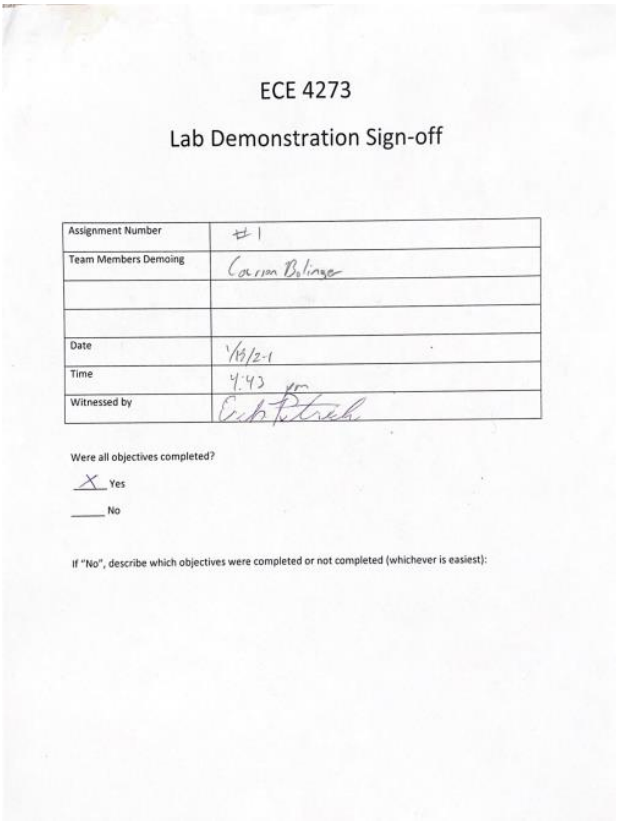
Individual Contribution:

Carson Bolinger (Electrical Engineering) - Followed through the instructions and fixed the code to the requirements

Carson Wagner (Computer Engineering) - Worked on the document throughout the steps and worked on the oscilloscope measurements

Roberto Solis (Electrical Engineering) - Worked on the document and worked on the oscilloscope measurements throughout the steps.

Lab Demonstration:



ECE 4273

Lab Demonstration Sign-off

Assignment Number	#1
Team Members Demoing	Carson Bolinger
Date	4/13/21
Time	4:43 pm
Witnessed by	Erik Petrich

Were all objectives completed?

X Yes

____ No

If "No", describe which objectives were completed or not completed (whichever is easiest):