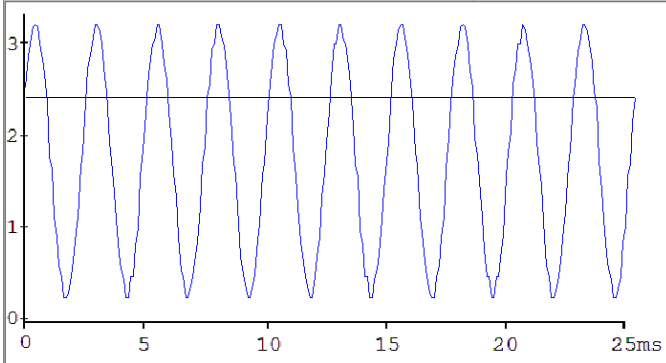
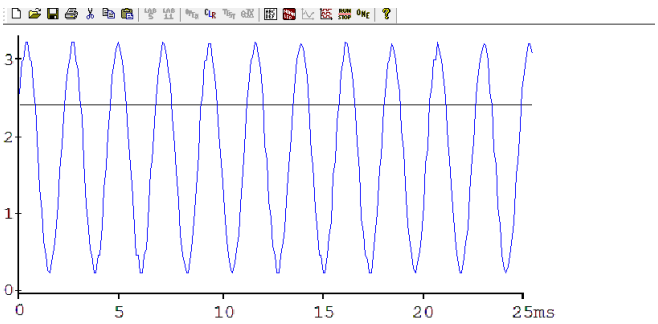
Bit3 bit2 bit1 bit0	Theoretical DAC voltage	Measured DAC voltage
0	0	0
1	0.22	0.23
2	0.44	0.45
3	0.66	0.68
4	0.88	0.89
5	1.10	1.11
6	1.32	1.31
7	1.54	1.54
8	1.76	1.77
9	1.98	1.99
10	2.2	2.21
11	2.42	2.42
12	2.64	2.65
13	2.86	2.87
14	3.08	3.10
15	3.3	3.32

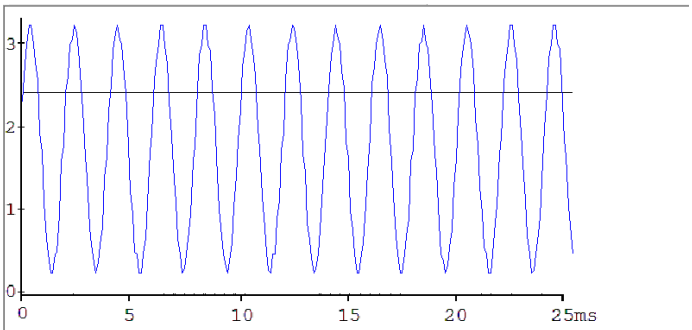
File Edit COM Action View Help



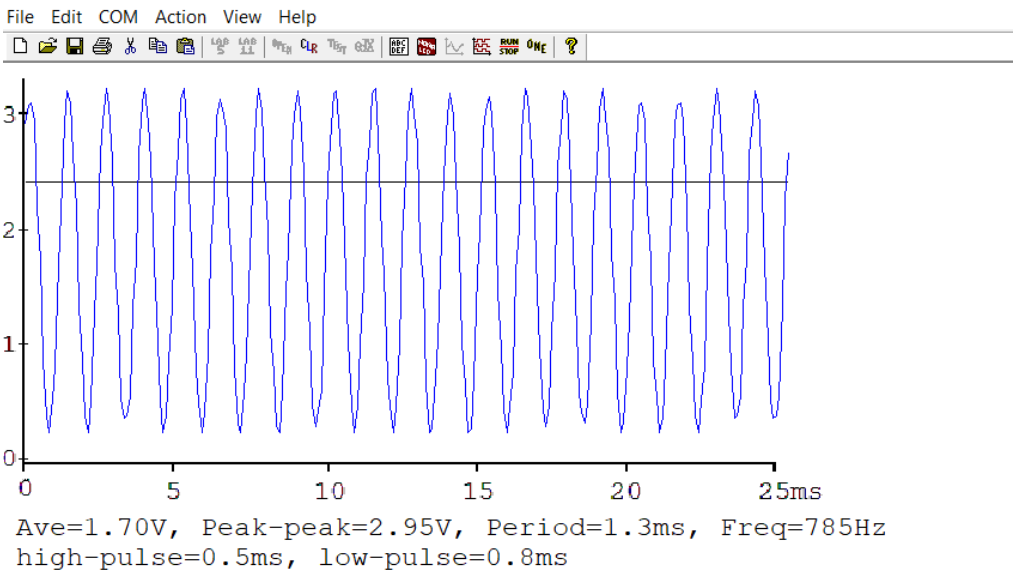
Ave=1.69V, Peak-peak=2.94V, Period=2.6ms, Freq=391Hz
high-pulse=1.1ms, low-pulse=1.5ms



Ave=1.72V, Peak-peak=2.95V, Period=2.3ms, Freq=441Hz
high-pulse=0.9ms, low-pulse=1.4ms



Ave=1.72V, Peak-peak=2.95V, Period=2.0ms, Freq=494Hz
high-pulse=0.8ms, low-pulse=1.3ms



Resolution = 0.23v

Accuracy = ((3.10-3.08)/3.08)*100=0.65%

Precision = 4-bit DAC 2^4= 16

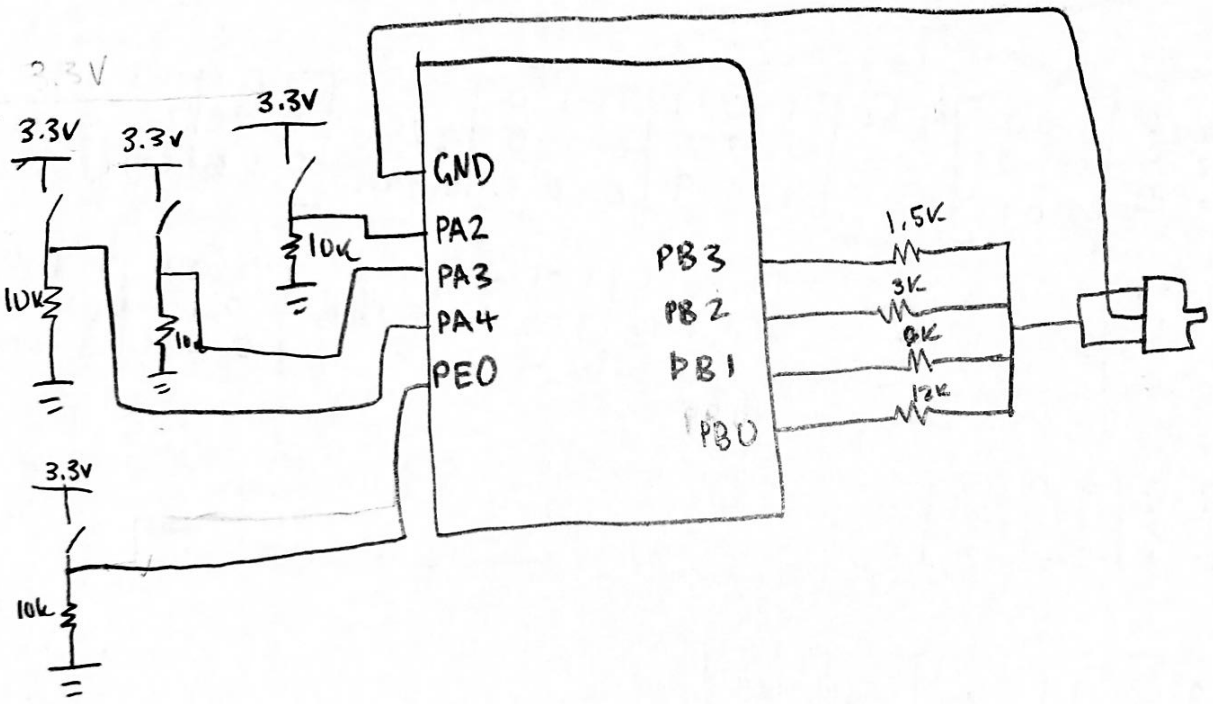
Range= 3.32V

a. When does the interrupt trigger occur?
   i. The interrupt trigger occurs when the Systick timer hits 0.

b. In which file is the interrupt vector?
   ii. The interrupt vector is in the Sound driver file.

c. List the steps that occur after the trigger occurs and before the processor executes the handler.
   iii. It finishes the current instruction, saves the "state" of the 8 registers, puts the address that was in the IVT for the handler into PC, and sets the LR to 0XFFFFF569.

d. It looks like **BX LR** instruction simply moves LR into PC, how does this return from interrupt?
   iv. If LR is set to the value of the vector table, then it pops the PC off the stack and returns to that location after the interrupt.


3.3V
3.3V
3.3V
3.3V
10K
10K
10K
GND
PA2
PA3
PA4
PE0
PB3
PB2
PB1
PB0
1.5K
3K
6K
12K