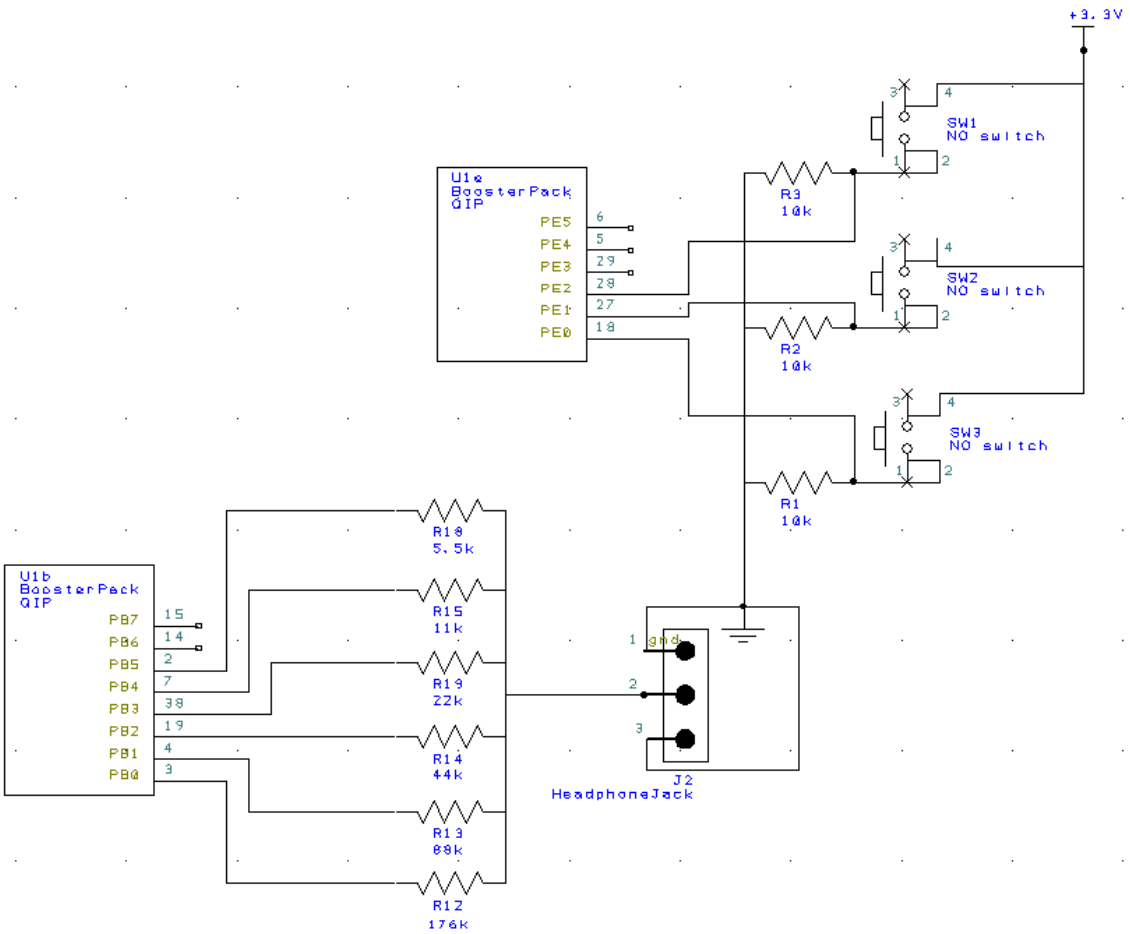
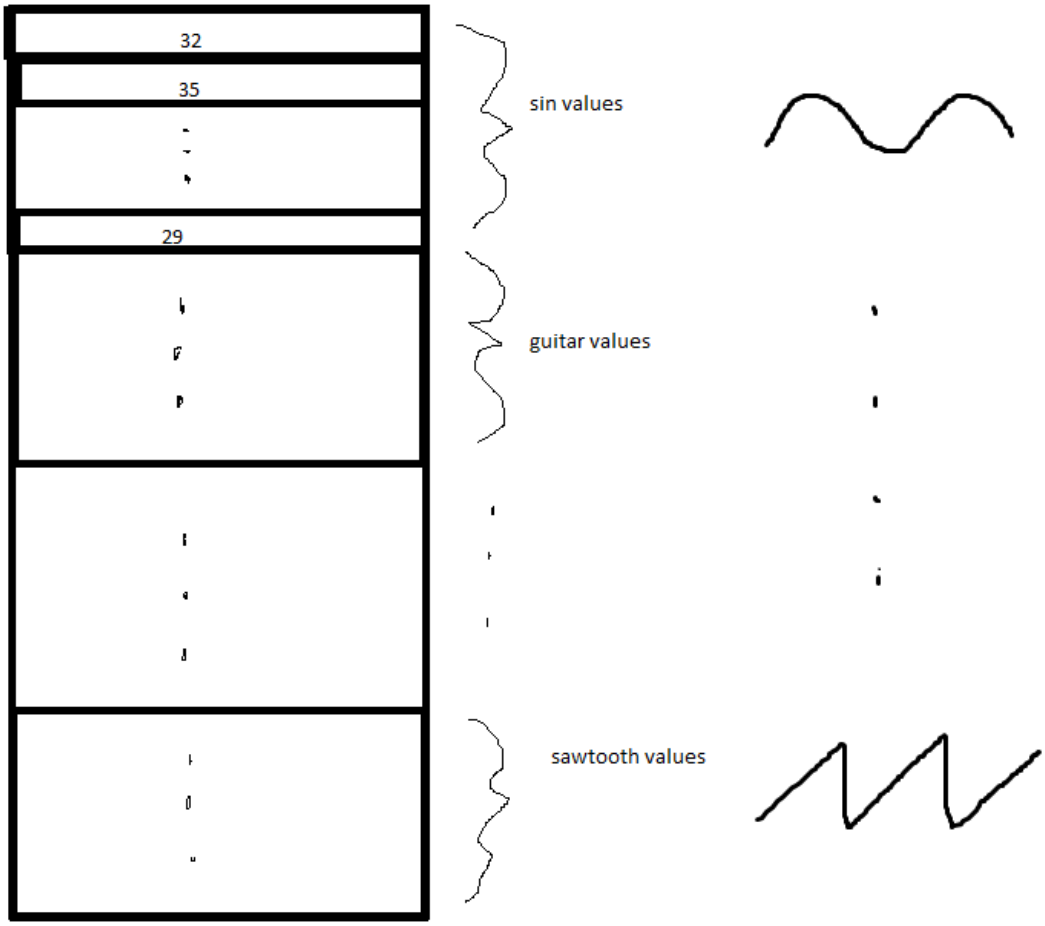
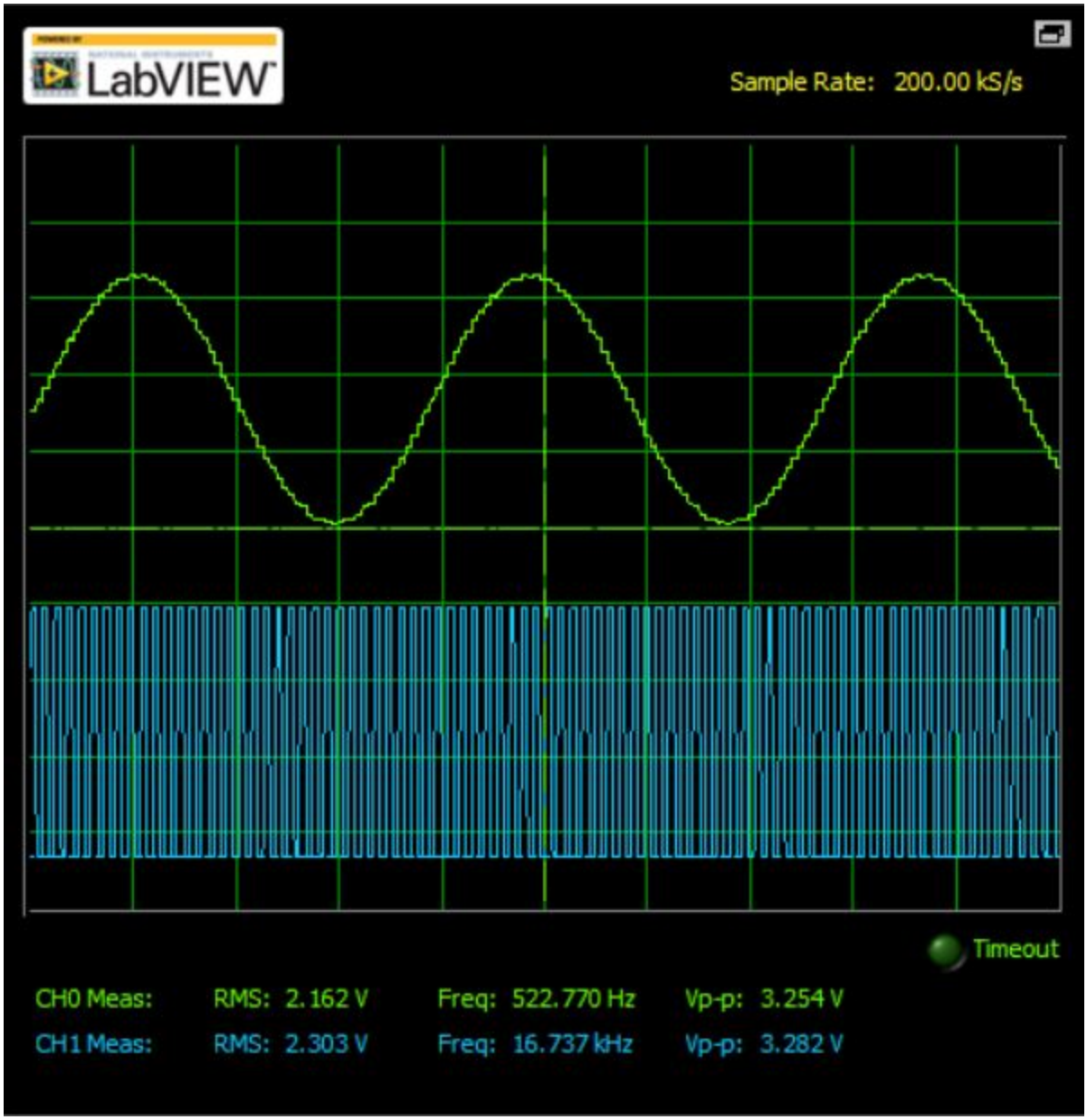

+3.3V
U1c
BoosterPack
QIP
PE5
PE4
PE3
PE2
PE1
PE0
6
5
29
28
27
18
SW1
NO switch
SW2
NO switch
SW3
NO switch
R3
10k
R2
10k
R1
10k
U1b
BoosterPack
QIP
PB7
PB6
PB5
PB4
PB3
PB2
PB1
PB0
15
14
2
7
38
19
4
3
R10
5.5k
R15
11k
R19
22k
R14
44k
R13
88k
R12
176k
gnd
J2
HeadphoneJack


32
35
29
sin values
guitar values
sawtooth values


LabVIEW
Sample Rate: 200.00 kS/s
Timeout
CH0 Meas: RMS: 2.162 V Freq: 522.770 Hz Vp-p: 3.254 V
CH1 Meas: RMS: 2.303 V Freq: 16.737 kHz Vp-p: 3.282 V

Fill in experimental data for Lab 6					
n	Actual (V)	Theory (V)	|Error| (V)	|Error|/3.3V	Resolution (V)
0	0.001	0.000	0.001	0.03%	
1	0.050	0.052	0.002	0.07%	0.049
7	0.361	0.367	0.006	0.17%	0.311
8	0.422	0.419	0.003	0.09%	0.061
15	0.790	0.786	0.004	0.13%	0.368
16	0.837	0.838	0.001	0.03%	0.047
17	0.890	0.890	0.000	0.01%	0.053
18	0.947	0.943	0.004	0.13%	0.057
31	1.620	1.624	0.004	0.12%	0.673
32	1.690	1.676	0.014	0.42%	0.070
33	1.740	1.729	0.011	0.35%	0.050
47	2.458	2.462	0.004	0.12%	0.718
48	2.515	2.514	0.001	0.02%	0.057
49	2.566	2.567	0.001	0.02%	0.051
62	3.248	3.248	0.000	0.01%	0.682
63	3.301	3.300	0.001	0.03%	0.053
	Average accuracy of full scale(V)=		0.004	0.11%	
		Average resolution (V)=	0.220		
	Range = 3.3				
	Precision = 64				
	Resolution (theoretical) = 0.052				

The interrupt trigger occurs when the SysTick resets from 0 to the reload value.
The interrupt vector is in the startup.s file.
After the trigger and before the handler, the processor does the following steps:

1. Completes current instruction
2. Saves context (puts R0-R3, R12, LR, PC, PSR in stack)
3. LR <- 0xFFFFFFF9
4. PC <- ISR address from IVT
5. IPSR <- Interrupt Number

It loads 0xFFFFFFF9 into the PC at which time it restores the context of the program (pops 8 registers of stack). One of the registers pushed was the PC, so the PC gets its old value back.