specified sound producing



Object:

$A^{\#}_4/B^{b}_4$	466.16	74.0
B_4	493.88	69.9
C_5	523.25	65.9
$C^{\#}_5/D^{b}_5$	554.37	62.2
D_5	587.33	58.7
$D^{\#}_5/E^{b}_5$	622.25	55.4
E_5	659.26	52.3
F_5	698.46	49.4
$F^{\#}_5/G^{b}_5$	739.99	46.6
G_5	783.99	44.0
$G^{\#}_5/A^{b}_5$	830.61	41.5
A_5	880.00	39.2
$A^{\#}_5/B^{b}_5$	932.33	37.0
B_5	987.77	34.9
C_6	1046.50	33.0
$C^{\#}_6/D^{b}_6$	1108.73	31.1

Make a sine wave generator that can make physical of music.

We can press the key on the de2 board to make it display the sound on screen.

when PRESS KEY,
N = 50 mhz / the frequency we want

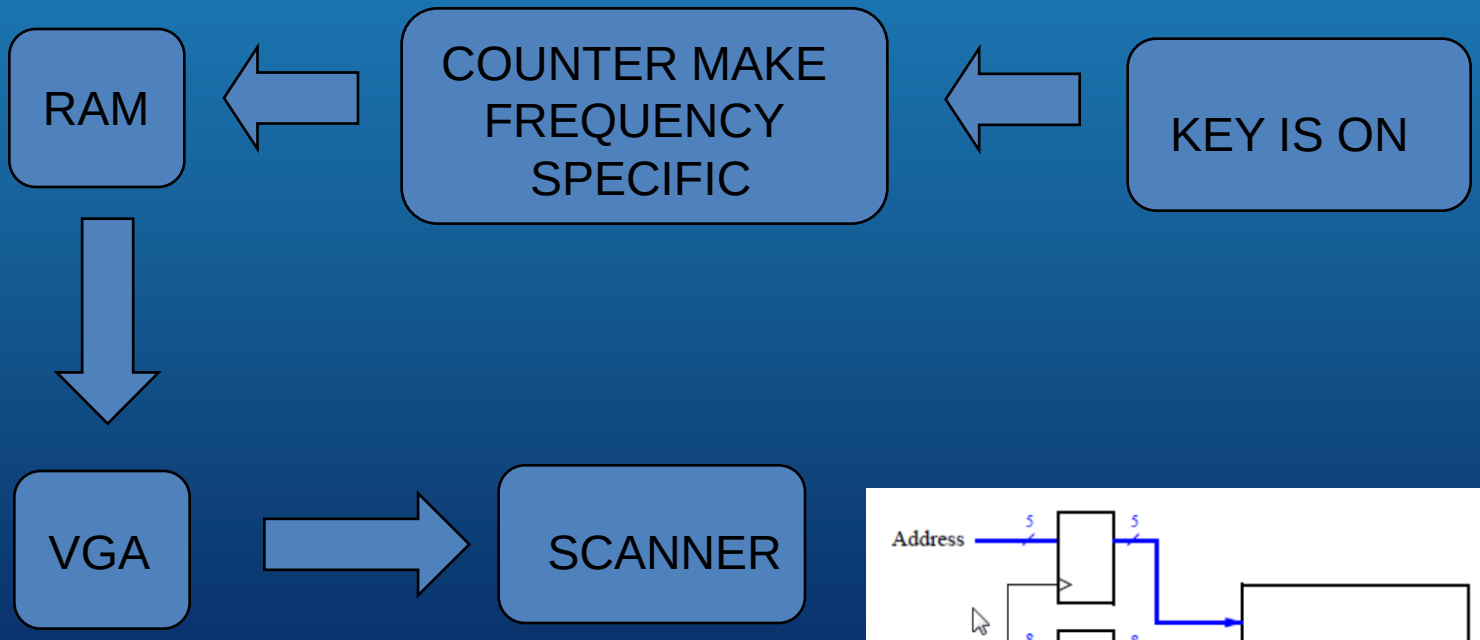
The counter will count N times.

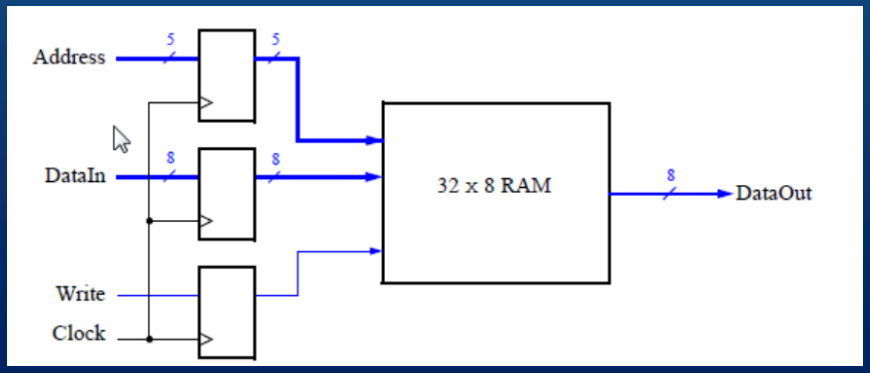
while the counter reach the value, slower clock change once

address add 1,

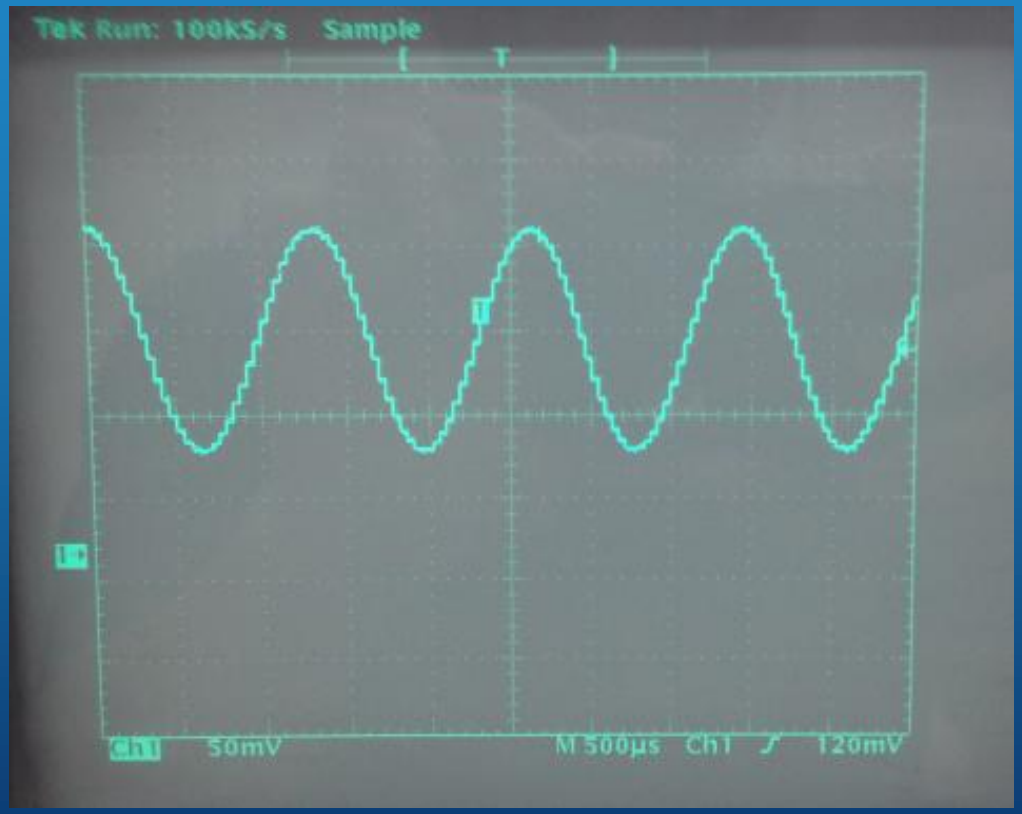
Addr	+0	+1	+2	+3	+4	+5	+6	+7
0	128	152	176	198	218	234	245	253
8	255	253	245	234	218	198	176	152
16	128	103	79	57	37	21	10	2
24	0	2	10	21	37	57	79	103

block diagram





SHAPES



input and output

THANK YOU