Flowchart MK2

start

- Set P1.2 bits for buzzer
- set TA0 for freq
- set TA1 for delay

loop routine

clear TA1

call verse1

|C5| |D5| |E5| |F5|
500ms 500ms 500ms 500ms
|G5| |rest| |G5|
400ms 100ms 400ms

call verse2

|rest| |A5| |rest|
100ms 400ms 100ms
|A5| |rest| |A5|
400ms 100ms 400ms
|rest|
100ms

call verse3

|A5| |G5| |rest| |F5|
500ms 400ms 100ms 400ms
|rest| |F5|
100ms 400ms
|rest|
100ms

call verse4

|F5| |rest| |F5|
400ms 100ms 400ms
|E5| |rest|
400ms 100ms

call verse5

|E5| |rest| |D5|
400ms 100ms 400ms
|rest| |D5|
100ms 400ms

call verse6

|rest| |D5|
100ms 400ms
|D5| |C5|
500ms 1000ms
1000ms

Delay subroutine

call

- set TACLR in TA1
- clear TAIFG in TA1

test TA1 timer flag

is it 0?

no

Clear IDSIDEX for TA1

ret

All time durations are the same code except the TAIDEX and numbers moved to the CCR0 registers

call

- Set ID_x in TA1CTL
- set IDEX_x in TA1EX0

delay

move #xxxxx in TA1CCR0 register

call delay

ret

All Frequency subroutines are the same just different values in the TA0CCR0 and TA0CCR0 registers

Call

move #xxxx in to register CCR0

move #xxxx into register CCR1

ret