```
 1: #include <hidef.h>        /* common defines and macros */
 2: #include <mc9s12dp512.h>     /* derivative information */
 3: #pragma LINK_INFO DERIVATIVE "mc9s12dp512"
 4:
 5: #define SIN 16
 6: #define FREQUENCY 24000000/SIN
 7:
 8: #define MREPEAT 36
 9: #define HREPEAT 34
10: #define BREPEAT 29
11:
12: #define MELODY  146
13: #define HARMONY  181
14: #define BASS  163
15:
16:
17: typedef const struct Note{
18:   unsigned short frequency;
19:   unsigned long length;
20:
21: } NoteType;
22:
23: //--------------------Music_InitOC0--------------------
24: // arm output compare 0 for melody
25: // also enables timer to 43 ns period
26: // Input: none
27: // Output: none
28: void Music_InitOC0(void);
29:
30: //--------------------Music_InitOC1--------------------
31: // arm output compare 1 for harmony
32: // Input: none
33: // Output: none
34: void Music_InitOC1(void);
35:
36: //--------------------Music_InitOC2--------------------
37: // arm output compare 2 for bass
38: // Input: none
39: // Output: none
40: void Music_InitOC2(void);
41:
42: //--------------------Music_InitOC3--------------------
43: // arm output compare 3 for envelopes at 750 Hz
44: // Input: none
45: // Output: none
46: void Music_InitOC3(void);
47:
48: //--------------------Music_Restart--------------------
49: // arm output compare 3 for envelopes at 750 Hz
50: // Input: none
51: // Output: none
52: void Music_Restart(void);
```