

```
1: #include "OC.h"
2:
3: unsigned short frequency;
4: void (*function)(void);
5:
6: interrupt 8 void TOC0handler(void){ // executes at 100 Hz
7:     TFLG1 = 0x01;           // acknowledge OC0
8:     PTP |= 0x80;
9:     (*function)();
10:    TC0 += 187500/frequency;
11: }
12:
13: //-----OC_Init0-----
14: // arm output compare 0 for 100Hz periodic interrupt
15: // Input: none
16: // Output: none
17: void OC0_Init(unsigned short freq, void (*func)(void)) {
18:     frequency = freq;
19:     function = func;
20:     TIOS |= 0x01;    // activate TC0 as output compare
21:     TIE  |= 0x01;    // arm OC0
22:     TSCR1 = 0x80;    // Enable TCNT, 24MHz boot mode, 8MHz in run mode
23:     TSCR2 = 0x07;    // divide by 64 TCNT prescale, TOI disarm
24:     PACTL = 0;       // timer prescale used for TCNT
25:     TC0   = TCNT + 50; // first interrupt right away
26: }
```