

```

1  #include <process.h>
2  #include <dos.h>
3
4  /*****
5  ** udelay(ticks)
6  **
7  ** Returns after roughly ticks * 0.8381 microseconds (ticks must
8  ** be non-negative and less than 32768 therefore the maximum
9  ** delay is about 27.4 milliseconds).
10 **
11 *****/
12 void us_delay( unsigned int usecs )
13 {
14     unsigned char lo_byte, hi_byte;
15     unsigned char *byte_ptr;
16
17     usecs = ( (long)usecs * 118 ) / 100;
18
19     byte_ptr = &usecs;
20     lo_byte = *byte_ptr;
21     byte_ptr++;
22     hi_byte = *byte_ptr;
23
24     asm pushf                /* disable interrupts */
25     asm cli
26
27     asm in    al,0x61         /* PORTB */
28     asm and   al,0xFD         /* disable speaker */
29     asm or    al,0x01        /* enable timer 2 gate */
30     asm out   0x61,al
31
32     asm mov   al,0xB0
33     asm out   0x43,al         /* send command */
34     asm in    al,0x61         /* waste some time */
35     asm mov   al,lo_byte
36     asm out   0x42,al         /* load lo-byte */
37     asm in    al,0x61         /* waste some time */
38     asm mov   al,hi_byte
39     asm out   0x42,al         /* load hi-byte */
40
41     asm popf                /* reenable inetrerrupts (if where before) */
42
43     /*****/
44 mschk:
45     asm mov   al,0x80
46     asm out   0x43,al         /* latch count */
47     asm in    al,0x61         /* waste some time */
48     asm in    al,0x42         /* read latched lo-byte */
49     asm in    al,0x61         /* waste some time */
50     asm in    al,0x42         /* read latched hi-byte */
51     asm shl   al,1
52     asm jnc   mschk           /* wait until count wraps around */
53     /*****/
54
55     asm pushf                /* disable interrupts */
56     asm cli
57
58     asm mov   al,0xB6         /* mode 3, two-byte reload */
59     asm out   0x43,al         /* send command */
60
61     asm in    al,0x61         /* PORTB */
62     asm and   al,0xFC         /* disable speaker */
63     asm out   0x61,al
64
65     asm popf                /* reenable inetrerrupts (if where before) */
66 }
67

```