

```
1  #include "delay.h"
2
3  uint32_t timing_delay;
4  void SysTick_Handler()
5  {
6      if (timing_delay != 0)
7      {
8          timing_delay--;
9      }
10 }
11 void delay_us(uint32_t x)
12 {
13     timing_delay = x;
14     while(timing_delay);
15 }
16 void delay_ms(uint32_t y)
17 {
18     while(y--)
19     {
20         delay_us(100);
21     }
22 }
23
24 void set_time_out(uint32_t timeout)
25 {
26     timing_delay = timeout;
27 }
28 bool timed_out(void)
29 {
30     if (timing_delay == 0)
31     {
32         return true;
33     }
34     return false;
35 }
```