

```

1 //=====
2 //
3 // Step 11
4 // Ticker
5 //
6 //=====
7 #include "mbed.h"
8 #include "TextLCD.h"
9
10 TextLCD lcd(p17, p12, p27, p28, p29, p30); // rs, e, d4-d7
11 Ticker tik; // recurring interrupt
12
13 int tikFlg = 0;
14
15 //-----
16 // Ticker
17 //-----
18 void attime(void)
19 {
20     tikFlg = 1;
21 }
22
23 //-----
24 // Main
25 //-----
26 int main(void)
27 {
28     lcd.cls();
29     lcd.locate(0, 0); // x, y
30
31     //-----
32     // RTC check
33     //-----
34     time_t now_time = time(NULL); // today
35     struct tm *s_tm = localtime(&now_time);
36     if(s_tm->tm_year < 118) // since 1900
37     { // RTC set
38         struct tm t;
39         t.tm_sec = 0; // 0-59
40         t.tm_min = 0; // 0-59
41         t.tm_hour = 10; // 0-23
42         t.tm_mday = 11; // 1-31
43         t.tm_mon = 7-1; // 0-11
44         t.tm_year = 118 // year since 1900
45
46         set_time(mktime(&t)); // Write RTC
47     }
48
49     tik.attach(&attime, 1); // 1s -> call attime
50
51     while(1)
52     {
53         if( tikFlg == 1 )
54         {
55             tikFlg = 0;
56             now_time = time(NULL); // today
57             s_tm = localtime(&now_time);
58             lcd.locate(0, 0);
59             lcd.printf("%02d/%02d %02d:%02d:%02d", s_tm->tm_mon+1, s_tm->tm_mday, s_tm-
60 >tm_hour, s_tm->tm_min, s_tm->tm_sec);
61         }
62     }
63     return 0;
64 }

```