

```
1  #include <stdint.h>
2  #include "stm32f10x.h"
3
4  //Commands for Hitachi 44780 compatible LCD controllers
5  #define LCD_8B2L 0x38 // ; Enable 8 bit data, 2 display lines
6  #define LCD_DCB 0x0F // ; Enable Display, Cursor, Blink
7  #define LCD_MCR 0x06 // ; Set Move Cursor Right
8  #define LCD_CLR 0x01 // ; Home and clear LCD
9  #define LCD_LN1 0x80 // ;Set DDRAM to start of line 1
10 #define LCD_LN2 0xC0 // ; Set DDRAM to start of line 2
11 // Control signal manipulation for LCDs on 352/384/387 board
12 // PB0:RS PB1:ENA PB5:R/W*
13 #define LCD_CM_ENA 0x00210002 //
14 #define LCD_CM_DIS 0x00230000 //
15 #define LCD_DM_ENA 0x00200003 //
16 #define LCD_DM_DIS 0x00220001 //
17
18 // Initialize the Cortex M3 clock using the RCC registers
19 void clockInit(void);
20 void delay(uint32_t);
21
22 void transfer(uint8_t);
23 uint8_t receive(void);
24 void usartInit(void);
25
26 void lcd_IO_init(void);
27
28 void printToLCD1(uint16_t);
29 void printToLCD2(uint16_t);
30
31 uint16_t Hex2Ascii(uint8_t);
32
33 void commandToLCD(uint8_t);
34 void dataToLCD(uint8_t);
35 void stringToLCD(char * message);
36
37 void ADCinit(void);
38
39 uint16_t readTemp1(void);
40 void startTemp1(uint16_t);
41 uint16_t readTemp2(void);
42 void startTemp2(uint16_t);
43
44 uint16_t readCDS1(void);
45 void startCDS1(uint16_t);
46 uint16_t readCDS2(void);
47 void startCDS2(uint16_t);
48
```