## E:/ANIL TE PRACS/MCA FILES/expt 7.X/LCD.h

```
1 //LCD HEADER FILE
 4 #include<P18F452.h>
 5 #pragma config OSC = HS
 6 #pragma config PWRT = OFF
 7 #pragma config DEBUG = OFF
 8 #pragma config WDT = OFF
 9 #pragma config LVP = OFF
11 #define RS PORTCbits.RC0
                                 //Declaration of pin labels
12 #define RW PORTCbits.RC1
13 #define EN PORTCbits.RC2
14
15 void milliDelay(unsigned int time){//Function for generating delay in
millisecs
16 int i,j;
17 for(i=0;i<time;i++);
18 for(j=0;j<165;j++);
19 }
20
21 void sendCommand(unsigned char send){
22 milliDelay(3);
23 RS = 0;//Select command register
24 RW = 0; //Select write to LCD mode
25 PORTD = send; //Send command to LCD
26 EN = 1;
27 milliDelay(5);
28 EN = 0;
29 }
30
31 void sendData(unsigned char send) {
32 milliDelay(3);
33 RS = 1;//Select display register
34 RW = 0; //Select write to LCD mode
35 PORTD = send; //Send command to LCD
36 EN = 1;
37 milliDelay(5);
38 EN = 0;
39 }
40
```

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```
41 void displayMsg(unsigned char row, unsigned char column, rom unsigned char
*message){
42 \text{ if (row == 1)}
                       //Function for displaying a string
43 \text{ row} = 0x80;
44 else
45 \text{ row} = 0 \times \text{CO};
46
47 sendCommand(row | column);
48 while(*message){
49 sendData(*message);
50 message++;
51 }
52 }
53
54 void initLCD(void){//Function to initialise LCD
55 \text{ TRISD} = 0 \times 00;
56 TRISCbits.TRISC0 = 0;
57 TRISCbits.TRISC1 = 0;
58 TRISCbits.TRISC2 = 0;
59 sendCommand(0x38);
60 sendCommand(0x0E);
61 sendCommand(0x01);
62 sendCommand(0x06);
63 }
```