```c
 1: sbit LCD_RS at RD2_bit;
 2: sbit LCD_EN at RD3_bit;
 3: sbit LCD_D7 at RD7_bit;
 4: sbit LCD_D6 at RD6_bit;
 5: sbit LCD_D5 at RD5_bit;
 6: sbit LCD_D4 at RD4_bit;
 7:
 8: sbit LCD_RS_Direction at TRISD2_bit;
 9: sbit LCD_EN_Direction at TRISD3_bit;
10: sbit LCD_D7_Direction at TRISD7_bit;
11: sbit LCD_D6_Direction at TRISD6_bit;
12: sbit LCD_D5_Direction at TRISD5_bit;
13: sbit LCD_D4_Direction at TRISD4_bit;
14:
15: unsigned char Check, T_byte1, T_byte2,
16:  RH_byte1, RH_byte2, Ch ;
17:  unsigned Temp, RH, Sum,water,basinc ;
18:  char basinc2[10];
19:  char water2[10];
20: void StartSignal(){
21:     TRISD.B0 = 0;  //RD0'ı çıkış olarak yapılandırıldı
22:     PORTD.B0 = 0;  //RD0 sensöre 0 gönderir
23:     delay_ms(18);
24:     PORTD.B0 = 1;   //RD0 sensöre 1 gönderir
25:     delay_us(30);
26:     TRISD.B0 = 1;   //RD0'ı giriş olarak yapılandırın
27:  }
28:  void CheckResponse(){        //sinyal geldiği sürece sürekli çalışmasını sağlıyor
    r
29:      Check = 0;
30:      delay_us(40);
31:      if (PORTD.B0 == 0){
32:          delay_us(80);
33:          if (PORTD.B0 == 1)
34:          Check = 1; delay_us(40);
35:      }
36:  }
37:  char ReadData(){
38:      char i, j;
39:      for(j = 0; j < 8; j++){
40:          while(!PORTD.B0);  //PORTD.B0 YÜKSEK olana kadar bekleyin
41:              delay_us(30);
42:          if(PORTD.B0 == 0)
43:              i&= ~(1<<(7 - j)); //Clear bit (7-b)
44:          else {
45:              i|= (1 << (7 - j)); //Set bit (7-b)
46:              while(PORTD.B0);
47:              }
48:  }
49:  return i;
50:  }
51:
52: void main() {
53:     TRISB.B0 = 0;
54:     TRISD.B0 = 0;
55:     ANSEL=0x09;
56:     Lcd_Cmd(_LCD_CURSOR_OFF); // cursor off
57:     Lcd_Cmd(_LCD_CLEAR); // clear LCD
58:     Lcd_Init();
59:     while(1){
60:         StartSignal(); //FONKSİYON
61:         CheckResponse(); //FONKSİYON
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62:          if(Check == 1){    //KONTROL
63:              RH_byte1 = ReadData();
64:              RH_byte2 = ReadData();
65:              T_byte1 = ReadData();
66:              T_byte2 = ReadData();
67:              Sum = ReadData();
68:              if(Sum == ((RH_byte1+RH_byte2+T_byte1+T_byte2) & 0XFF)){
69:                  Temp= T_byte1;
70:                  RH = RH_byte1;        //SICAKLIK VE NEM SENSÖRLERİ
71:                  water = ADC_Read(3)/10;      //su seviyesi sensörünün adc işlemi
72:                  basinc = ADC_Read(0)*10 / 8.39215686;   //basınc sensörünün adc işle
     emi
73:                  Lcd_Cmd(_LCD_CURSOR_OFF);
74:                  Lcd_Out(1, 1, "Sicaklik: ");
75:                  Lcd_Out(2, 1, "Nem: ");
76:                  LCD_Chr(1, 12, 48 + ((Temp / 10) % 10));
77:                  LCD_Chr(1, 13, 48 + (Temp % 10));
78:                  LCD_Chr(2, 12, 48 + ((RH / 10) % 10));
79:                  LCD_Chr(2, 13, 48 + (RH % 10));
80:                  Delay_ms( 1000 );
81:                  Lcd_Cmd(_LCD_CURSOR_OFF);
82:                  Lcd_Cmd(_LCD_CLEAR);
83:                  Lcd_Out(1, 1, "Su Seviyesi: ");
84:                  LCD_Chr(1, 14, 48 + ((water / 100) % 10));
85:                  LCD_Chr(1, 15, 48 + ((water / 10) % 10));
86:                  LCD_Chr(1, 16, 48 + (water % 10));
87:                  Delay_ms( 1000 );
88:                  Lcd_Cmd(_LCD_CURSOR_OFF);
89:                  Lcd_Cmd(_LCD_CLEAR);
90:                  Lcd_Out(1, 1, "Basinc: ");
91:                  LCD_Chr(1, 13, 48 + ((basinc / 1000) % 10));
92:                  LCD_Chr(1, 14, 48 + ((basinc / 100) % 10));
93:                  LCD_Chr(1, 15, 48 + ((basinc / 10) % 10));
94:                  LCD_Chr(1, 16, 48 + (basinc % 10));
95:                  Delay_ms( 500 );
96:                  Lcd_Cmd(_LCD_CURSOR_OFF);
97:                  Lcd_Cmd(_LCD_CLEAR);
98:                  if((Temp<=5)&(RH<=20)&(basinc>1020)){  //koşulların  yazılması
99:                      Lcd_Out(1, 1, "KAR RISKI");
100:                     if(water<30){
101:                         Lcd_Out(2, 1, "KAR YAGMIYOR");
102:                     }
103:                     if((water>30)&&(water<=60)){
104:                         Lcd_Out(2, 1, "AZ KAR YAGIYOR");
105:                     }
106:                     if((water>60)&&(water<=80)){
107:                         Lcd_Out(2, 1, "ORTA KAR YAGIYOR");
108:                     }
109:                     if(water>80){
110:                         Lcd_Out(2, 1, "SAGANAK KAR");
111:                     }
112:                     Delay_ms( 1000 );
113:                     Lcd_Cmd(_LCD_CURSOR_OFF);
114:                     Lcd_Cmd(_LCD_CLEAR);
115:                 }
116:                 else if((Temp<=15)&(RH>45)&(basinc<1020)){  //koşulların  yazılması
     ı
117:                         Lcd_Out(1, 1, "YAGMUR RISKI");
118:                         if(water<30){
119:                             Lcd_Out(2, 1, "YAGMUR YAGMIYOR");
120:                         }
121:                         if((water>30)&&(water<=60)){
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122:                                              Lcd_Out(2, 1, "YAGIS AZ");
123:                                        }
124:                                     if((water>60)&&(water<=80)){
125:                                         Lcd_Out(2, 1, "YAGIS ORTA");
126:                                        }
127:                                     if(water>80){
128:                                         Lcd_Out(2, 1, "SAGANAK YAGIS");
129:                                        }
130:                                  Delay_ms( 1000 );
131:                                  Lcd_Cmd(_LCD_CURSOR_OFF);
132:                                  Lcd_Cmd(_LCD_CLEAR);
133:                       }
134:              else if((Temp>30)&(RH>=75)&(basinc<1000)){  //koşulların   yazılması
      ı
135:                                  Lcd_Out(1, 1, "SICAK HAVA");
136:                                  Delay_ms( 1000 );
137:                                  Lcd_Cmd(_LCD_CURSOR_OFF);
138:                                  Lcd_Cmd(_LCD_CLEAR);
139:                       }
140:                       }
141:          }
142: }}
```