

```

1: #include <18f4520.h>
2: #include "PIC18F4520_registers.h"
3: #device adc=10
4:
5: #FUSES NOWDT //No Watch Dog Timer
6: #FUSES WDT128 // watch dog timer on
7: #FUSES HS //High power osc < 200 khz
8: #FUSES NOPROTECT //Code not protected from reading
9: #FUSES BROWNOUT //Reset when brownout detected
10: #FUSES BORV25 //Brownout reset at 2.5V
11: #FUSES NOPUT //No Power Up Timer
12: #FUSES NOCPD //No EE protection
13: #FUSES STVREN //Stack full/underflow will cause rese
14: #FUSES NODEBUG //No Debug mode for ICD
15: #FUSES NOLVP //No low voltage prgming, B3(PIC16) or
16: #FUSES NOWRT //Program memory not write protected
17: #FUSES NOWRTD //Data EEPROM not write protected
18: #FUSES IESO //Internal External Switch Over mode e
19: #FUSES FCMEN //Fail-safe clock monitor enabled
20: #FUSES NOPBADEN //PORTB pins are configured as analo
21: #FUSES NOWRTC //configuration not registers write pr
22: #FUSES NOWRTB //Boot block not write protected
23: #FUSES NOEBTR //Memory not protected from table read
24: #FUSES NOEBTRB //Boot block not protected from table
25: #FUSES NOCPB //No Boot Block code protection
26: #FUSES LPT1OSC //Timer1 configured for low-power oper
27: #FUSES MCLR //Master Clear pin enabled
28: #FUSES NOXINST //Extended set extension and Indexed
29:
30: #use delay(clock=20000000)
31:
32: #define use_portb_lcd TRUE
33: #define C_Timeout 2000
34: #include "EXLCD.C"
35:
36: #use rs232(baud=300,parity=E,xmit=PIN_C6,rcv=PIN_C7,bits=7,stop=1 )
37:
38:
39: int i;
40: char a[200],inds = 0;
41: unsigned int16 RSTimeout=0, ind1;
42:
43: #INT_RDA
44: void RX_isr(void)
45: {
46:     set_uart_speed(300,x);
47:     disable_interrupts(int_rda); // int_rda kesmesini pasif yap
48:
49:     if(inds>199)
50:         inds=199;
51:
52:     output_toggle(pin_c1);
53:     a[inds++]=SSPBUF;
54:     RSTimeout=0;
55:
56: }
57:
58: #INT_TIMER2
59: void T2_isr(void)
60: {
61:
62: if(RSTimeout)
63:     RSTimeout--;
64:     output_toggle(pin_c0);
65:

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66: }
67:
68:
69:
70: void main ( )
71: {
72:     setup_adc_ports( NO_ANALOGS );
73:     enable_interrupts( INT_RDA );
74:     enable_interrupts( INT_TIMER2 );
75:     enable_interrupts( GLOBAL );
76:     clear_interrupt( int_rda );
77:
78:     setup_wdt( WDT_OFF );
79:     setup_timer_0( RTCC_INTERNAL );
80:     setup_timer_1( T1_DISABLED );
81:     setup_timer_2( T2_DIV_BY_16, 156, 2 );
82:     lcd_init ( );
83:     delay_ms(100);
84:
85:     printf( lcd_putc, "\f      WELCOME" );
86:
87:
88:
89:     WHILE ( TRUE )
90:     {
91:         if( input( pin_d0 ) == 1 ) {
92:
93:             delay_ms(1000);
94:
95:             //Wake up komutu kısmi
96:
97:             output_high( pin_a0 );
98:             output_high( pin_a1 );
99:
100:            for( i=0; i<20; i++ ) {
101:                putc( 0x15 );
102:                putc( 0x00 );
103:                delay_ms(100);
104:            }
105:            output_low( pin_a1 );
106:            output_low( pin_a0 );
107:
108:            //Wake up komutu kısmi bitisi
109:
110:            delay_ms(1000);    // 1.TX
111:            output_high( pin_a0 );
112:            output_high( pin_a1 );
113:
114:            putc ( 0x2f );
115:            putc ( 0x3f );
116:            putc ( 0x21 );
117:            putc ( 0x0d );
118:            putc ( 0x0a );
119:
120:            delay_ms(6800);
121:            // 1.TX BITİMİ
122:            output_low( pin_a1 );
123:            output_low( pin_a0 );
124:
125:            delay_ms(500);
126:
127:            output_high( pin_a1 );
128:            output_high( pin_a0 );
129:            // 2.TX
130:            putc ( 0x06 );

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131:         putc (0x30);
132:         putc (0x34);
133:         putc (0x30);
134:         putc (0x0d);
135:         putc (0x0a);
136:
137:         delay_ms(8000);
138:         // 2.TX BITIMI
139: output_low(pin_a1);
140: output_low(pin_a0);
141:     }
142:
143:
144: if(inds>0 && !RSTimeout)
145: {
146:
147: printf(lcd_putc, "INSIDE");
148:
149: for(indl = 0; indl < inds; indl++)
150:     printf(lcd_putc, "%C", a[indl]);
151:
152: inds=C_Timeout;
153:
154: }
155:
156:
157: }
158:
159: }
160:
161:
```