EE-304

Mikroişlemciler Lab.

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Ödev-1

a.

```
#include <ödev1.h>
#fuses HS, NOWDT, NOPROTECT
#use delay(clock=4000000)
#use fast_io(b)

int i;

void main() {
 setup_adc_ports(NO_ANALOGS);
 setup_adc(ADC_OFF);
 setup_psp(PSP_DISABLED);
 setup_spi(SPI_SS_DISABLED);
 setup_timer_0(RTCC_INTERNAL|RTCC_DIV
 setup_timer_1(T1_DISABLED);
 setup_timer_2(T2_DISABLED,0,1);
 set_tris_b(0x00);
 output_b(0x00);
while(1){
 for(i=0;i<15;i++) {
  output_b(0x0F);
  delay_ms(500);
  output_b(0x00);
  delay_ms(500);
```

```
output_b(0xF0);
delay_ms(500);
output_b(0x00);
delay_ms(500);
}
i=0;
for(i=0; i<5; i++)
{
output_b(0x55);
delay_ms(1000);
output_b(0x00);
delay_ms(1000);
//
output_b(0xAA);
delay_ms(1000);
output_b(0x00);
delay_ms(1000);
}
}
IV_1);}
}
```

b. Program while (1) dışına yazılırsa yalnızca 1 defa çalışır ve sonlanır. while (1) içine yazıldığında ise sonsuz döngü şeklinde çalışır.

C. #include <main 3.h>

```
#fuses HS, NOWDT, NOPROTECT
#use delay (clock=4000000)
#use fast_io(b)

int i, a;

void main (){

 setup_adc_ports (NO_ANALOGS);
 setup_adc (ADC_OFF);
 setup_psp (PSP_DISABLED);
 setup_spi (SPI_SS_DISABLED);
 setup_timer_0 (RTCC_INTERNAL | RTCC_DIV_1);
setup_timer_1 (T1_DISABLED);
 setup_timer_2 (T2_DISABLED, 0, 1);

set_tris_b(0x00);
output_b(0x00);
 while (1) {
for(i=0; i<15; i++) {

output_b (0x01);
delay_ms (500);
output_b(0x00);
delay_ms (500);
output_b( 0x03);
delay_ms (500);
output_b( 0x00);
delay_ms (500);
```

```
output_b(0x07);
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x0F);
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x1F);
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x3F);
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x7F);
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0xFF);
delay_ms(500);
output_b(0x00);
delay_ms(500);
for(a=0; a<5; a++){
output_b(0xFF);
delay_ms(500);
output_b(0x00);
delay_ms(500);
```

0xC0

```
output_b(0x3F);
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x3F); → 0xE0
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x1F); → 0xF0
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x0F); → 0xF8
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x07); → 0xFC
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x03); → 0xFE
delay_ms(500);
output_b(0x00);
delay_ms(500);
output_b(0x01); → 0xFF
delay_ms(500);
output_b(0x00);
delay_ms(500);
```