

```
#include <avr/io.h>
#include <stdint.h>
#include <inttypes.h>
#include <avr/interrupt.h>
```

```
void port_init (void)
{
    DDRC = 0b00000011;

    PORTC = 0b00000000;

    DDRB = 0b00000001;
    PORTB = 0b00000000;
}
```

```
void timer_init (void)
{

    TIMSK = (1<<TOIE1);

    TCNT1 = 65536-10000;

    sei();
}
```

```
void uController_init (void)
{
    if(bit_is_clear(PINB, PB0))
    {

        timer_init();
    }
}
```

```
ISR(TIMER1_OVF_vect)
{

    PORTC |= (1<<PC0);

    TIMSK &= ~(1<<TOIE1);
}
```

```
int main(void)
{
    port_init();

    TCCR1B = (1<<ICNC1)|(0<<ICES1)|(1<<CS11);

    while(1)
    {
        if(bit_is_set(PINB, PB1))
            uController_init();

    }

}
```