```asm
;>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
;1DT301, Computer Technology I
;Date: 2019-09-27
;
;Author:
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;
;Lab number:                 3.
;Title:                      Task 1.
;
;Hardware:                   STK600, CPU ATmega2560.
;
;Function:                   Turn ON and OFF an LED with a button push
;                            (SW0 button). The LED will be extinguished when
;                            pressing the button.
;
;Input ports:                PORTD.
;
;Output ports:               On-board LEDs connected to PORTB.
;
;Subroutines:                INTERRUPT_0.
;
;Included files:             m2560def.inc
;
;Other information:
;Changes in program:
;     File Created (2019-09-27)
;   Program is runnable (2019-09-29)
;
;<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
.include"m2560def.inc"
.org 0x00
rjmp START

.org INT0addr
rjmp INTERRUPT_0

.org 0x72
START:
ldi r20, HIGH(RAMEND)
out SPH,r20
ldi r20, LOW(RAMEND)
out SPL, r20

ldi r16, 0x00
out DDRD, r16
out DDRA, r16
```

```asm
        ldi r16, 0xFF
        out DDRE, r16
        out DDRB, r16

        ldi r16, 0b00000001
        out EIMSK, r16

        ldi r16, 0b00000010
        sts EICRA, r16

        sei
;-------------------
MAIN:
        ldi r16, 0xFF
        out DDRB, r16
        out PORTB, r16
        com r16
        out DDRD, r16
        ldi r18, 0xFF

LOOP:
        nop
        rjmp LOOP

;----------- INTERRUPT -------------
INTERRUPT_0:
        push r16
        in r16, sreg
        push r16

        cpi r18, 0xFF
        breq ON
        rjmp OFF

OFF:
        ldi r18, 0xFF
        out PORTB, r18
        rjmp DONE

ON:
        ldi r18, 0x00
        out PORTB, r18
        rjmp DONE

DONE:
        pop r16
        out sreg, r16
        pop r16
        reti
```