```
;>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
;1DT301, Computer Technology I
;Date: 2019-09-09
;
;Author:
;   Student name 1:          Einar van de Velde
;   Student name 2:          Abdulla Mehdi
;
;Lab number:                 1.
;Title:                      Task 2.
;
;Hardware:                   STK600, CPU ATmega2560.
;
;Function:                   Read the switches and light the corresponding LED.
;   Example:                 When you press SW5, LED5 so should light.
;
;Input ports:                On-board SWITCHES connected to PORTA.
;
;Output ports:               On-board LEDs connected to PORTB.
;
;Subroutines:                None.
;
;Included files:             m2560def.inc
;
;Other information:
;Changes in program:
;       File Created (2019-09-09)
;
;<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
.include "m2560def.inc"

ldi r16, 0xFF              ;Set the Data Direction Register as MAXimum (255).
out DDRB, r16             ;Set B Port as output Port.

ldi r16, 0x00             ;Set the Data Direction Register as MINimum (0).
out DDRA, r16             ;Set A Port as output Port.

;Turn off all LEDs on SK600 board
ldi r16, 0xFF
out PORTB, r16

;This loop checks for input from the SWITCHES from port A -> SW0-SW7
;It listens for this input every refresh sequence.
switch_loop:
    in r15, PINA          ;Read from the SWITCH connected in port A
    out PORTB, r15        ;And save it in Register 15.
rjmp switch_loop          ;Jump out of loop.
```