Lab 2: Tomáš Křička

My repository

My git - Tomáš Křička, 223283

2. Active-low and active-high LEDs

DDRB	Description
0	Input pin
1	Output pin

PORTB	Description
0	Output low value
1	Output high value

DDRB	PORTB	Direction	Internal pull-up resistor	Description
0	0	input	no	Low-impedance
0	1	input	yes	Pulled down
1	0	output	no	Low output
1	1	output	no	High output

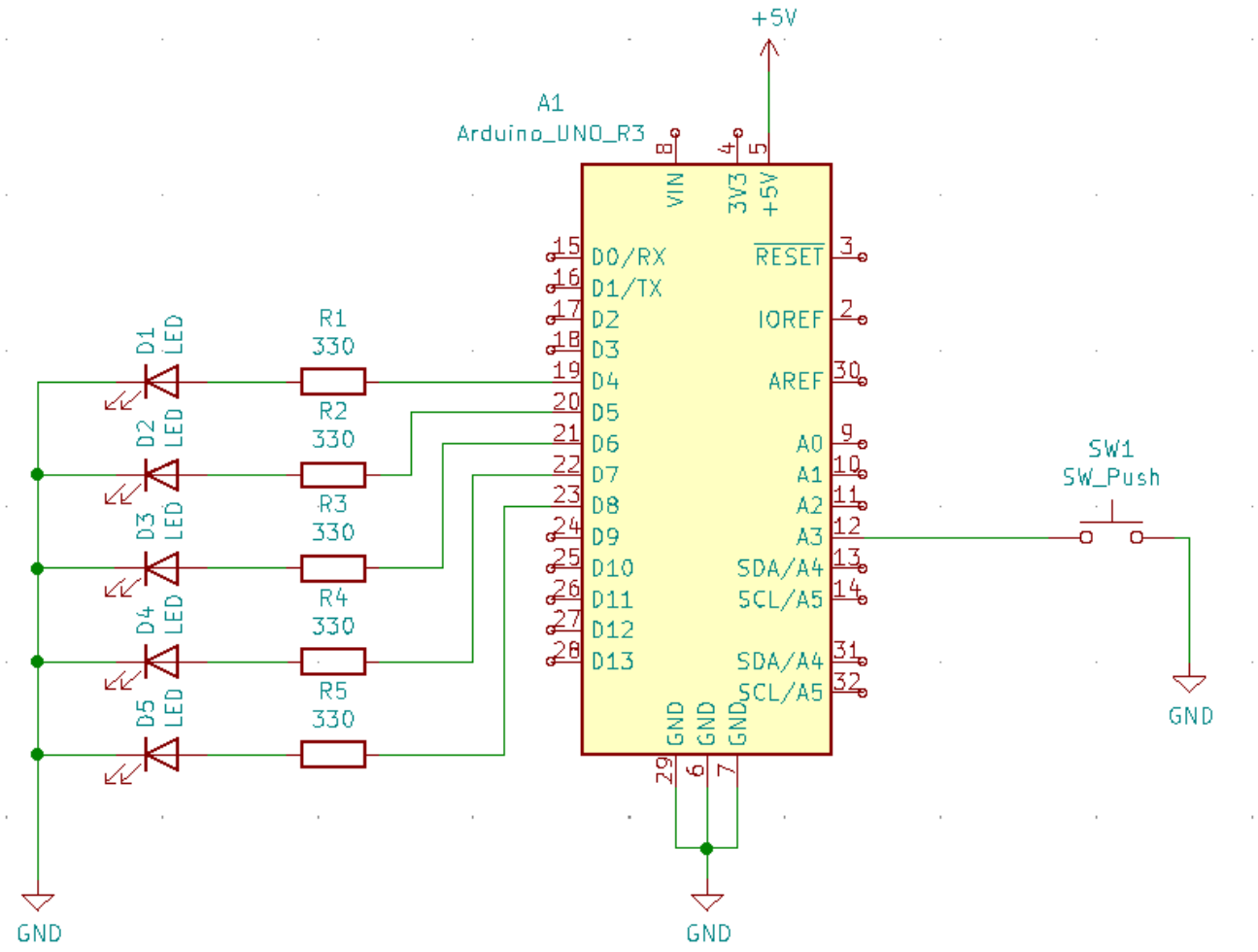
Blinking together

```
while(1)
{
    _delay_ms(BLINK_DELAY);
    PORTB = PORTB | (1<<LED_GREEN);
    PORTC = PORTC | (1<<LED_WHITE);
    _delay_ms(BLINK_DELAY);
    PORTB = PORTB &~ (1<<LED_GREEN);
    PORTC = PORTC &~ (1<<LED_WHITE);
}
```

4.Push button

```
int main(void)
{

    DDRB = DDRB | (1<<LED_GREEN);
    PORTB = PORTB & ~(1<<LED_GREEN);


    DDRC = DDRC | (1<<LED_WHITE);
    PORTC = PORTC & ~(1<<LED_WHITE);


    DDRD = DDRD &~ (0<<BUTTON);
    PORTD = PORTD | (1<<BUTTON);

    while(1)
    {
        if (bit_is_clear(PIND ,BUTTON))
       {
            PORTB ^= (1<<LED_GREEN);
            PORTC ^= (1<<LED_WHITE);
            loop_until_bit_is_clear(PIND, BUTTON);
       }
    }
    return 0;
}
```

Knight rider


+5V
A1
Arduino_UNO_R3
VIN
3V3
+5V
D0/RX
D1/TX
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
RESET
IOREF
AREF
A0
A1
A2
A3
SDA/A4
SCL/A5
SDA/A4
SCL/A5
GND
GND
GND
D1 LED
D2 LED
D3 LED
D4 LED
D5 LED
R1 330
R2 330
R3 330
R4 330
R5 330
SW1
SW_Push
GND
GND
GND