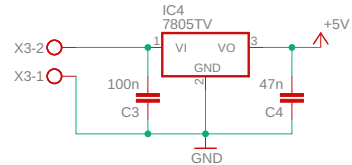


External Crystal:  
Stabilize the working frequency of the AVR  
to be able to use the internal UART interface



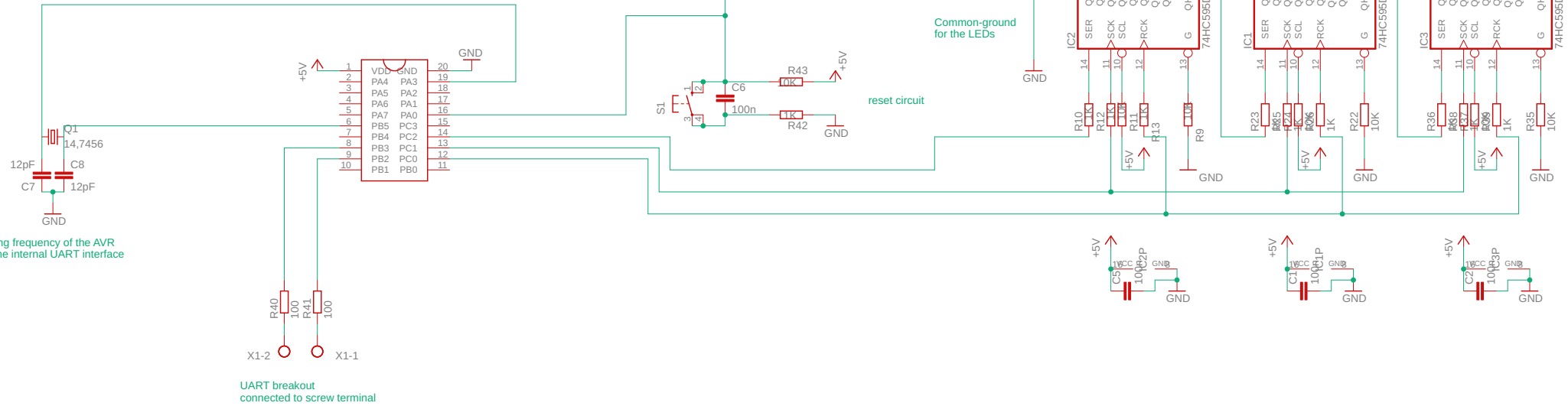
Power Supply:  
- 8V Input, 5V output  
- capacitors for stability

programming breakout

Common-ground  
for the LEDs

reset circuit

Shift Registers:  
- driving the LEDs  
- between every LED and the shift register  
a resistor is placed  
- the shift registers are driven by the AVR



UART breakout  
connected to screw terminal