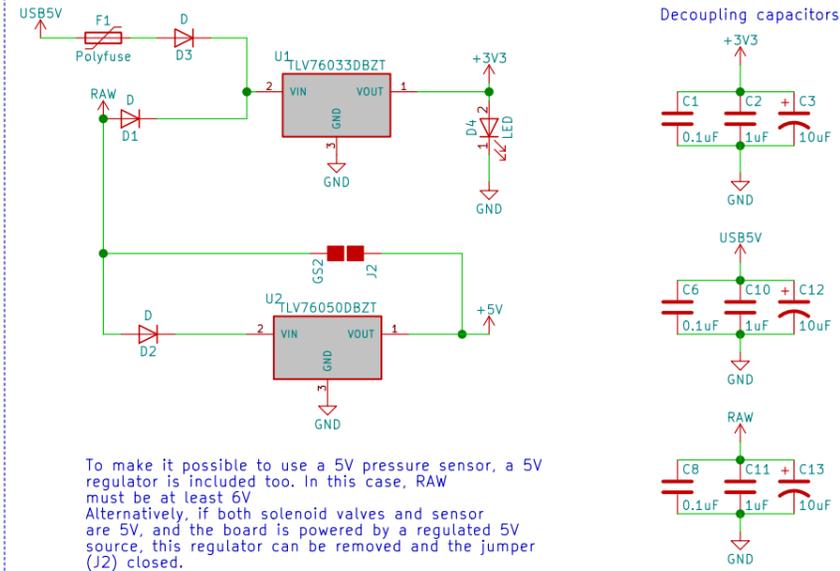
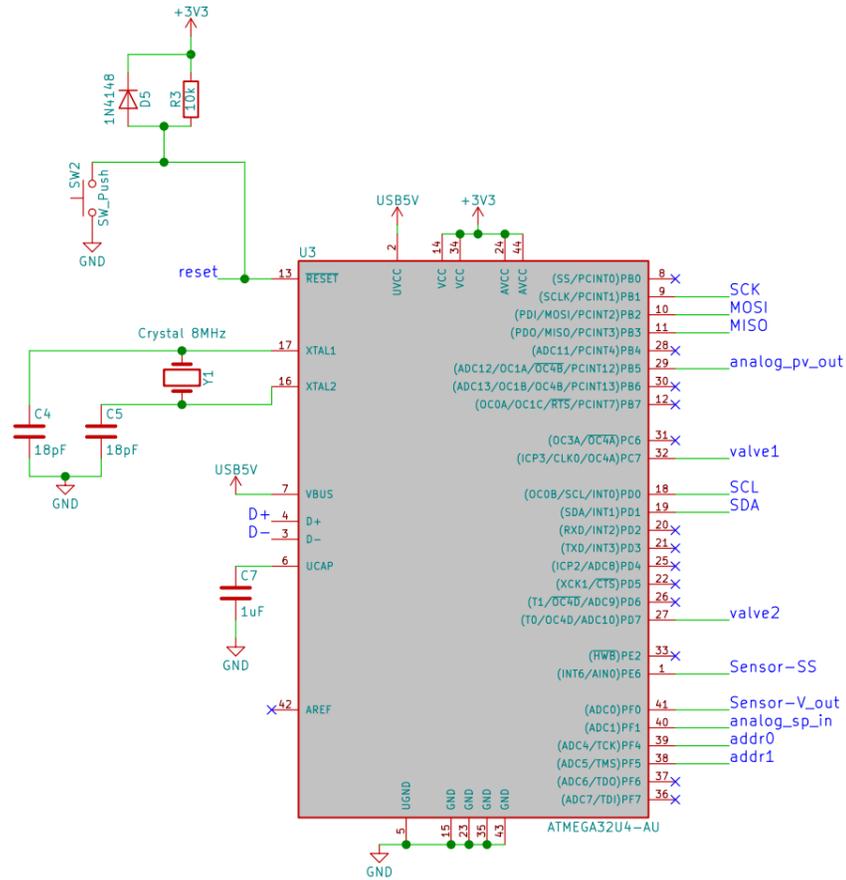


## Power

Power input. RAW is 5 to 24VDC, and powers the valves directly. 3.3V regulator powers the microcontroller. 5V regulator powers the sensor, if a 5V sensor is used.

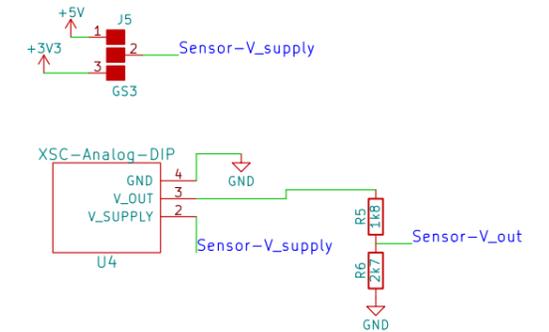


To make it possible to use a 5V pressure sensor, a 5V regulator is included too. In this case, RAW must be at least 6V. Alternatively, if both solenoid valves and sensor are 5V, and the board is powered by a regulated 5V source, this regulator can be removed and the jumper (J2) closed.

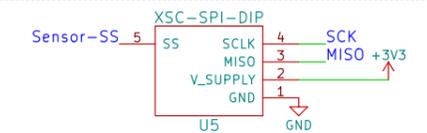


## Analog pressure sensor

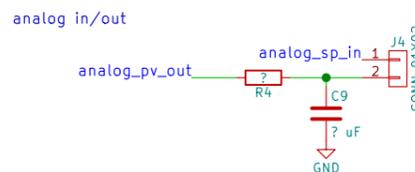
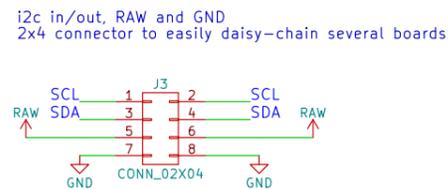
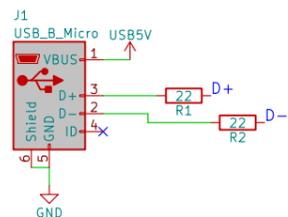
There is support for either a 3.3V or a 5V sensor. For a 3.3V sensor, the resistors are not populated, and the 1k8 resistor is replaced by a solder bridge.



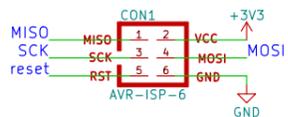
## Digital pressure sensor



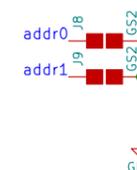
## Connectors



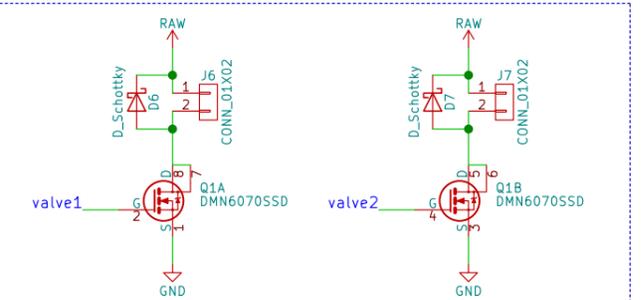
ICSP header for flashing bootloader



Jumpers for i2c address selection. This will allow up to 4 different addresses without requiring any reprogramming.



## Solenoid valve drivers



Schottky diodes are used due to their very fast recovery times, which is necessary for PWM driving of the valves.

Craig Watson  
Senyo Lab  
Case Western Reserve University  
Sheet: /  
File: pressurereg.sch

**Title: Pressure regulator**

Size: A3 Date: 2018-05-10  
KiCad E.D.A. kicad 4.0.6

Rev: 1  
Id: 1/1