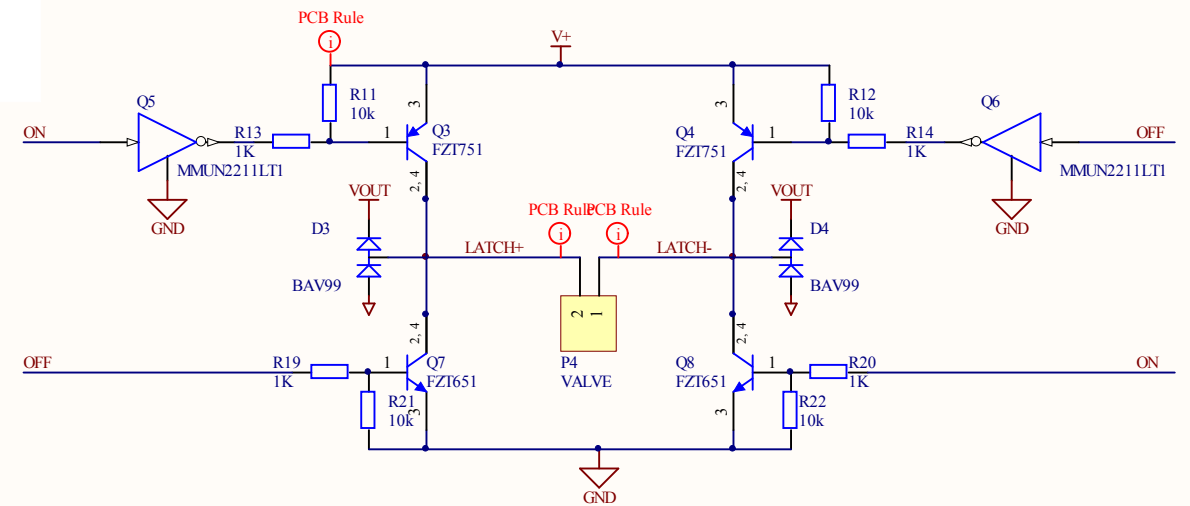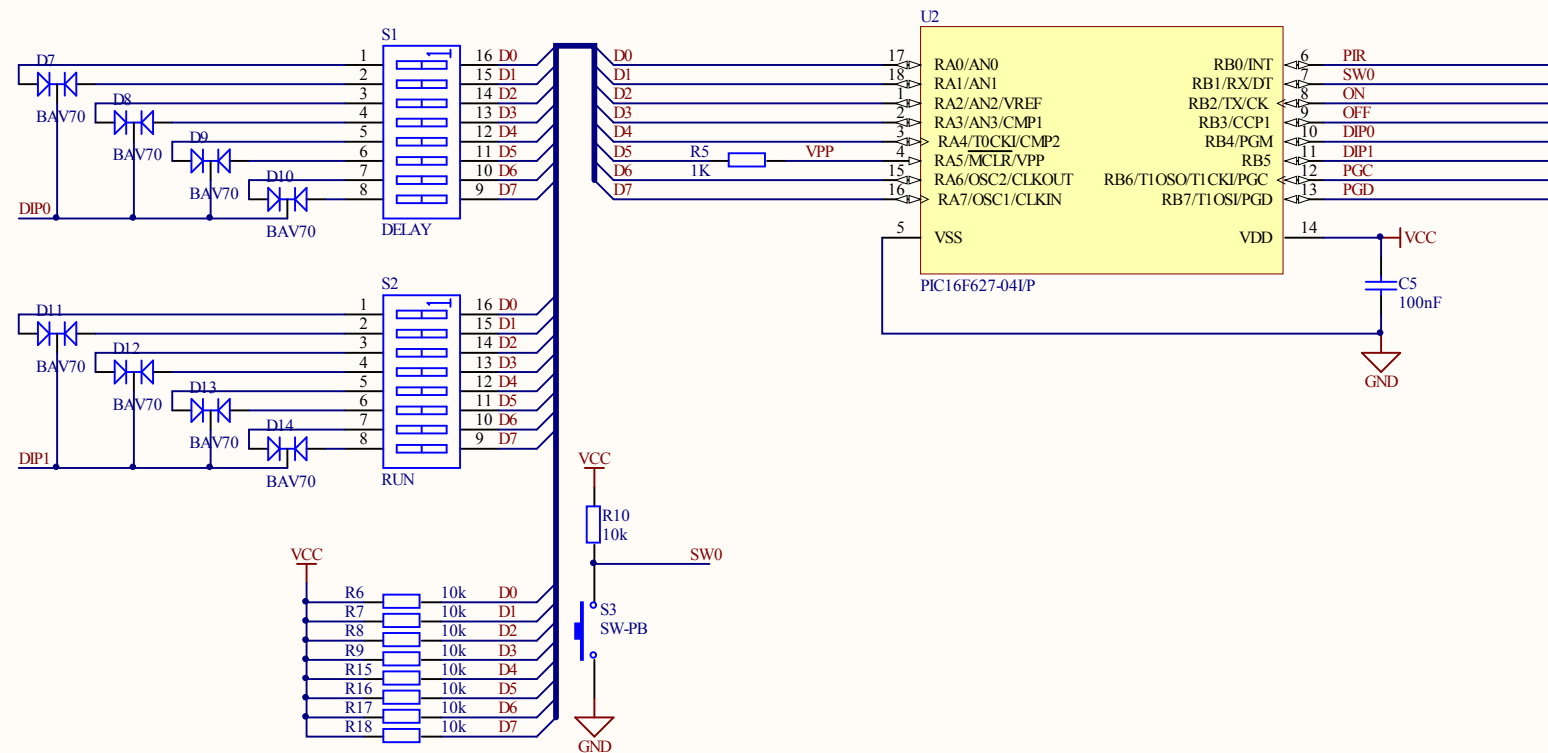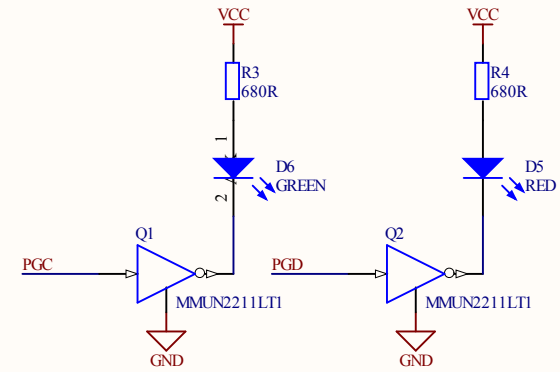TO DO

1. Pins on prog header are backwards
2. Add diodes to DIP switches - change to SIL?
3. Change RB6 / RB7 tap to up - add 100R series

P2 POWER — 1, 2

F1 RAYCHEM - MINISMDC050F-2 — 1, 2

D1 S1M

V+

C1 100uF
C3 100nF

U1 MC7805ACT
IN — 1
OUT — 3
GND — 2

C4 100nF
VCC

GND

P1 Header 5
1 VCC
2 GND
3 VPP
4 PGC
5 PGD

VCC
R3 680R
D6 GREEN
Q1 MMUN2211LT1
PGC
GND

VCC
R4 680R
D5 RED
Q2 MMUN2211LT1
PGD
GND

P3 PIR — 1, 2, 3
V+
R1 10k
R2 10k
C6 100nF
D2 BAV99
PIR
VCC
GND

PCB Rule
V+
R11 10k
Q5 MMUN2211LT1
ON
R13 1K
Q3 FZT751
VOUT
D3 BAV99
LATCH+
GND

R12 10k
Q4 FZT751
Q6 MMUN2211LT1
OFF
R14 1K
VOUT
D4 BAV99
LATCH-
GND

OFF
R19 1K
Q7 FZT651
R21 10k
P4 VALVE
Q8 FZT651
R20 1K
R22 10k
ON
GND

S1 DELAY
1 D0
2 D1
3 D2
4 D3
5 D4
6 D5
7 D6
8 D7
16 D0
15 D1
14 D2
13 D3
12 D4
11 D5
10 D6
9 D7

D7 BAV70
D8 BAV70
D9 BAV70
D10 BAV70
DIP0

S2 RUN
1 D0
2 D1
3 D2
4 D3
5 D4
6 D5
7 D6
8 D7
16 D0
15 D1
14 D2
13 D3
12 D4
11 D5
10 D6
9 D7

D11 BAV70
D12 BAV70
D13 BAV70
D14 BAV70
DIP1

R5 1K VPP

U2 PIC16F627-04I/P
17 RA0/AN0 — RB0/INT 6 PIR
18 RA1/AN1 — RB1/RX/DT 7 SW0
1 RA2/AN2/VREF — RB2/TX/CK 8 ON
2 RA3/AN3/CMP1 — RB3/CCP1 9 OFF
3 RA4/T0CKI/CMP2 — RB4/PGM 10 DIP0
4 RA5/MCLR/VPP — RB5 11 DIP1
15 RA6/OSC2/CLKOUT — RB6/T1OSO/T1CKI/PGC 12 PGC
16 RA7/OSC1/CLKIN — RB7/T1OSI/PGD 13 PGD
5 VSS — VDD 14 VCC

C5 100nF
GND

VCC
R10 10k
SW0
S3 SW-PB
GND

VCC
R6 10k D0
R7 10k D1
R8 10k D2
R9 10k D3
R15 10k D4
R16 10k D5
R17 10k D6
R18 10k D7
GND

PCB Rule

HAMMOND 1551K

D7 R6 D11

D8 R7 R8 R9 D12

D9 R15 D13

D10 R13 D14

R2 R14 R13

R40 R42 R41

P2

R4 R6

P2 R6

R10