http[s]://1stein.schuermans.info/hackerport/

hacker port schematic
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Stefan Schuermans
<1stein@schuermans.info>
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dotted sections are optional

13V GENERATOR
D4 D3 D2 D1
10uF C23 10uF C22 10uF C21 10uF C20 10uF C19
T5 1KΩ R15
T4 1KΩ R14
+13V

JTAG
GND 2 1 TCK
VCC 4 3 TDO
6 5 TMS
8 7 !TRST
GND 10 9 TDI
CON3

VCC GND
100nF C9
D0 D1 D2 D3 D4 D5 D6 D7

74HC573 IC3
VCC Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 LE
OE D0 D1 D2 D3 D4 D5 D6 D7 GND

PICPROG
1 VPP
2 VCC
3 GND
4 PGD
5 PGC
CON4

T3 1KΩ R9 10KΩ R8
T2 1KΩ R7
100Ω R11
100Ω R10
T1 1KΩ R6

USB LED
LED1 1KΩ R5

DEBUG
CON1 1 VPP 2 VCC 3 GND 4 PGD 5 PGC
10KΩ R1
10KΩ R2

USBN9604 IC2
CS RD SK/WR INTR DRQ DACK A0/ALE/SI D0/SO D1 D2 D3 D4 D5 D6
CLKOUT XOUT XIN MODE0 MODE1 GND VCC GND D- D+ V3.3 AGND RESET D7

10pF C7
1MΩ R3
24MHz X2
10pF C8
100nF C5
1.5KΩ R4
1uF C6

USB-B
VCC D- D+ GND GND GND
CON2

ANALOG INPUTS
1 VCC
2
3
4
5
6
7 GND
CON5

PIC18F442 IC1
VPP/MCLR RA0/AN0 RA1/AN1 RA2/AN2 RA3/AN3 RA4/T0CKI RA5/AN4 RE0/AN5/RD RE1/AN6/WR RE2/AN7/CS VCC GND OSC1/CLKI OSC2/CLKO RC0/T1OSO/T1CKI RC1/T1OSI/CCP2 RC2/CCP1 RC3/SCK/SCL RD0/PSP0 RD1/PSP1
RB7/PGD RB6/PGC RB5/PGM RB4 RB3/CCP2 RB2/INT2 RB1/INT1 RB0/INT0 VCC GND RD7/PSP7 RD6/PSP6 RD5/PSP5 RD4/PSP4 RC7/RX/DT RC6/TX/CK RC5/SDO RC4/SDI/SDA RD3/PSP3 RD2/PSP2

100nF C1
22pF C3
22pF C4
10MHz X1
100nF C2

1uF C10
MAX232 IC4
VCC GND T1OUT R1IN R1OUT T1IN T2IN R2OUT
C1+ VS+ C1- C2+ C2- VS- T2OUT R2IN
1uF C11
1uF C13
1uF C12
1uF C14
UART
TX 1
RX 2
GND 3
CON8

PWM OUTPUTS
1 VCC
2
3
4 GND
CON6

10KΩ R12
10KΩ R13

I2C BUS
1 VCC
2 SCL
3 SDA
4 GND
CON7

OUTPUTS A
1 VCC
2
3
4
5
6
7
8
9
10 GND
CON9

74HC573 IC5
VCC Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 LE
OE D0 D1 D2 D3 D4 D5 D6 D7 GND

100nF C15

74HC573 IC7
VCC Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 LE
OE D0 D1 D2 D3 D4 D5 D6 D7 GND

100nF C17

INPUTS A
VCC 1 2 3 4 5 6 7 8 9 GND 10
CON11

OUTPUTS B
1 VCC
2
3
4
5
6
7
8
9
10 GND
CON10

74HC573 IC6
VCC Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 LE
OE D0 D1 D2 D3 D4 D5 D6 D7 GND

100nF C16

74HC573 IC8
VCC Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 LE
OE D0 D1 D2 D3 D4 D5 D6 D7 GND

100nF C18

INPUTS B
VCC 1 2 3 4 5 6 7 8 9 GND 10
CON12