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

hacker port schematic
version 0.7 date 2005-06-08
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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
VCC GND
D0 D1 D2 D3 D4 D5 D6 D7

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

74HC573 IC3
VCC Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 LE
OE D0 D1 D2 D3 D4 D5 D6 D7 GND
100nF C9

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
1MΩ R3 24MHz X2 10pF C7 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

MAX232 IC4
VCC GND T1OUT R1IN R1OUT T1IN T2IN R2OUT
C1+ VS+ C1- C2+ C2- VS- T2OUT R2IN
1uF C10 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

I2C BUS
1KΩ R12 1KΩ R13
1 VCC
2 SCL
3 SDA
4 GND
CON7

OUTPUTS A
CON9
74HC573 IC5
100nF C15

INPUTS A
CON11
74HC573 IC7
100nF C17

OUTPUTS B
CON10
74HC573 IC6
100nF C16

INPUTS B
CON12
74HC573 IC8
100nF C18