

NOTE: THE TOOLCHAIN DOES NOT YET SUPPORT 328PB (iom328pb.h will show up with avr-libc when it does)

WARNING: SDA1 AND SCL1 ARE 0V AND 5V WHEN ATMEGA328P IS USED

PORT BIT 328P;328PB

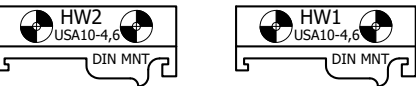
- 0V; SDA1/ICP4 E0 (\*) \* 2568 TX3
- +5V; SCL1/T4 E1
- RX0 D0;D0
- TX0 D1;D1
- INT0 D2; INT0/OC3B D2
- OC2B/INT1 D3; OC2B/INT1 D3
- T0 D4;T0 D4
- T1/OC0B D5; T1/OC0B D5
- OC0A D6;OC0A D6
- D7;D7

- ICP1 B0; ICP1 B0
- OC1A B1;OC1A B1
- SS/OC1B B2;SS/OC1B B2
- MOSI/OC2A B3;MOSI/OC2A/TX1 B3
- MISO B4; MISO/RX1 B4
- SCK B5; SCK B5
- GND
- AREF
- ADC4/SDA C4; ADC4/SDA0 C4
- ADC5/SCL C5; ADC5/SCL0 C5


- ADC0 C0;ADC0/MISO C0
- ADC1 C1;ADC1/SCK1 C1
- ADC2 C2;ADC2 C2
- ADC3 C3;ADC3 C3
- ADC4/SDA C4; ADC4/SDA0 C4
- ADC5/SCL C5; ADC5/SCL0 C5
- ADC6; ADC6/ICP3/SS1 E2
- ADC7; ADC7/T3/MOSI1 E3
- 0V
- NC (\*\*)

- VIN
- GND
- GND
- +5V
- +3V3
- RESET
- IOREF
- NC

Reference Designators:  
B Battery  
C Capacitor  
D Diode  
F Fuse/Breaker  
H Hardware & Outline  
J Connector/Link  
K Relay  
L Inductor  
M Motor (and Related)  
P Power supply  
Q Transistor  
R Resistor  
S Switch  
T Transformer  
TP Test point  
U Integrated circuit/module  
Y Crystal or oscillator



ARDUINO UNO R3 PIN-COMPATIBLE

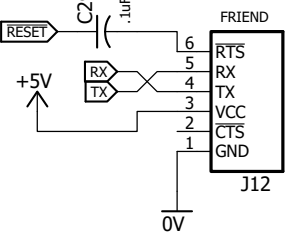
<div>RPU BUS</div>			RPUBUS.ORG GITHUB.COM/EPCCS			<div></div> <div>Copyright (C) 2017 Ronald Sutherland Released under the Creative Commons Attribution-ShareAlike 4.0 International (CC BY-SA 4.0) <a href="http://creativecommons.org/licenses/by-sa/4.0/">http://creativecommons.org/licenses/by-sa/4.0/</a></div>			<div>SIZE B</div>		
<div>BK black BN brown RD red OG orange YE yellow</div>			<div>GN green BU blue VT violet GY gray WH white</div>			<div>Symbols = RD Names = BU Values = GY Label/Info = VT Busses = Dark BU Net/Wire = GN Guide = YE</div>					
			DATE:		NAME:		ADDR: 1627 W INVERNESS DR TEMPE AZ 85282				
			Edit	1/22/18	RON S		E-MAIL: ronald.sutherland@gmail.com				
			Chk				PHONE: (480) 967-2851				
			TO:			DESCRIPTION:					
						PC, 6 CC LED DVR					
						MODEL:					
						RPULUX					
^1			PULL-DOWN 3..13, 100k Q1 RM A2 SINK, LED CC NOISE			1/22/18			DRAWING:		
^0			INIT			12/15/17			17323		
REV			BUGZILLA ISSUE #			JDATE			1/25/2018 2:10 PM		
						1/1					

ECS-160-20-3X-TR  
16MHZ +/- 30PPM  
STABILITY AND TOLERANCE  
CRYSTAL CAPACITORS:  
20PF = 6.5PF +  
(27PF\*27PF)/(27PF+27PF)

AVR TOOLCHAIN:  
Debain, Raspian, Ubuntu...  
gcc-avr binutils-avr gdb-avr  
avr-libc avrdude

EXAMPLES:  
<https://github.com/epccs/RPULux/>

### BOOTLOAD PORT



PINOUT BASED ON  
FTDI FRIEND  
<https://www.adafruit.com/product/284>