USB

VCC
JP1
D+
D-
VBUS
GND@1*3

USB
USB4UCON

R4 22R
R3 22R

DP
DM

GND

LEDs

VCC
D13

R1 1K
R2 1K

PWR
LED

GND

Mount holes

GND

H1 MOUNT-PAD-ROUND3.2
H2 MOUNT-PAD-ROUND3.2

SPI (optional)

J1
MISO   MISO   1   2   +5   VCC
SCK   SCK   3   4   MOSI MOSI
RESET   RESET   5   6   GND

GND

MISO, MOSI and SCK pins can be used
as GPIO when SPI is not used

Power (optional)

EXTPOWER
1   VIN
3
2

4UCON-18741

GND

IC1
NCP1117DT05BDTRKG
3   2*2   VCC
1

C7 10uF   C6 10uF   C4 100nF

GND

Crystal

Q1
XTAL1   1   2   XTAL2

C1 16MHz

C1 22pF   C2 22pF

GND   GND

VCC   VCC

R5 10K

BTN1
BUTTON
3   4
1   2

GND

GND

VCC

XTAL2
XTAL1

GND

VCC

AREF

GND   C5 100nF

3V3

C3 1uF

GND

GND

U1

VCC1
GND3
RESET

(PCINT7/OC0A/OC1C/#RTS)PB7   D11
(PCINT6/OC1B/OC4B/ADC13)PB6   D10
(PCINT5/OC1A/#OC4B/ADC12)PB5 D9
(ADC11/PCINT4)PB4   D8
(PD0/MISO/PCINT3)PB3   MISO
(PDI/MOSI/PCINT2)PB2   MOSI   } SPI pins
(SCLK/PCINT1)PB1   SCK   (not used)
(SS/PCINT0)PB0   RXLED

XTAL2
XTAL1

AVCC1
AVCC

(ICP3/CLK0/OC4A)PC7   D13
(OC3A/#0C4A)PC6   D5

AREF
VCC
GND
GND1
GND2
UCAP
UVCC

(INT6/AIN0)PE6   D7
(#HWB)PE2   BOOTEN   (not needed)

(T0/OC4D/ADC10)PD7   D6
(T1/#OC4D/ADC9)PD6   D12
(XCK1/#CTS)PD5   TXLED   (not used)

DM
DP
D-
D+
UGND
VBUS

(ICP1/ADC8)PD4   D4
(TXD1/INT3)PD3   D1
(RXD1/AIN1/INT2)PD2   D0
(SDA/INT1)PD1   D2
(OC0B/SCL/INT0)PD0   D3

PAD

(ADC7/TDI)PF7   A0
(ADC6/TDO)PF6   A1
(ADC5/TMS)PF5   A2
(ADC4/TCK)PF4   A3

GND

(ADC1)PF1   A4
(ADC0)PF0   A5

ATMEGA32U4

The 3.3V pin can source
80mA of which 25mA is
used by USB regulator
when active. See table
29.2 in datasheet.

PRismino pinout

VCC

PIN1

RESET   1   RST
3V3   2   3.3V
VCC   3   5V
         5   GND
         4   GND
VIN   6   VIN

Max. 80mA

GND

A0   7   A0
A1   8   A1
A2   9   A2
A3   10   A3
A4   11   A4
A5   12   A5

PF7/ADC7
PF6/ADC6
PF5/ADC5
PF4/ADC4
PF1/ADC1
PF0/ADC0

AREF   28   AREF
        27   GND
D13   26   D13   PC7/PWM
D12 A11 25   D12   PD6/ADC9/PWM
D11   24   D11   PB7/PCINT7/PWM
D10 A10 23   D10   PB6/ADC13/PCINT6/PWM
D9 A9 22   D9   PB5/ADC12/PCINT5/PWM
D8 A8 21   D8   PB4/ADC11/PCINT4

D7   20   D7   PE6/INT6
D6 A7 19   D6   PD7/ADC10//PWM
D5   18   D5   PC6/PWM
D4 A6 17   D4   PD4/ADC8
D3   16   D3   PD0/INT0/SCL/PWM
D2   15   D2   PD1/INT1/SDA
D1   14   D1   PD3/INT3/TX
D0   13   D0   PD2/INT2/RX
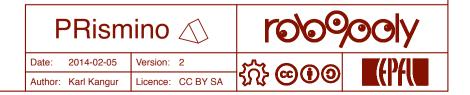
See ATmega32U4 datasheet for complete list of secondary pin functions

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PRismino △

| Date: | 2014-02-05 | Version: | 2 |
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