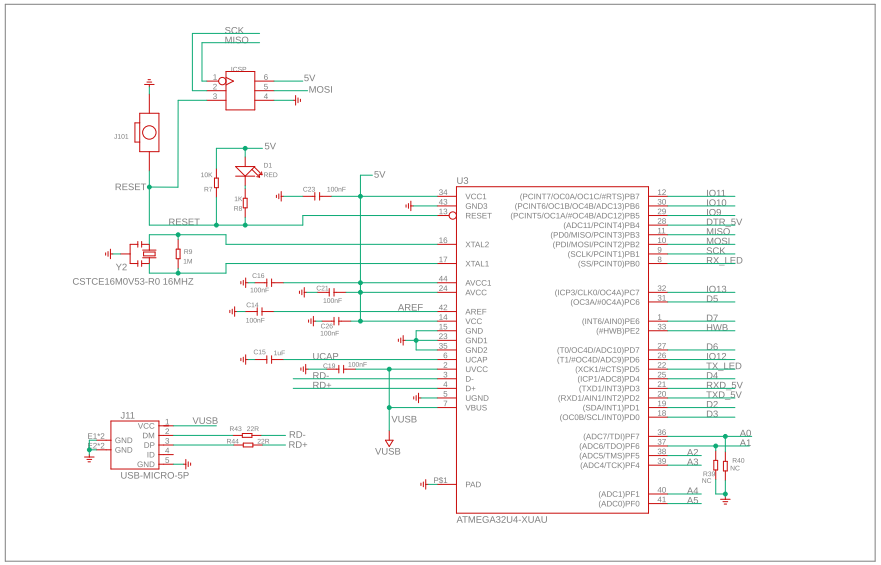
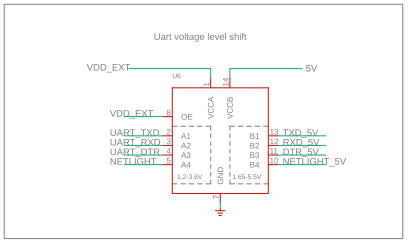
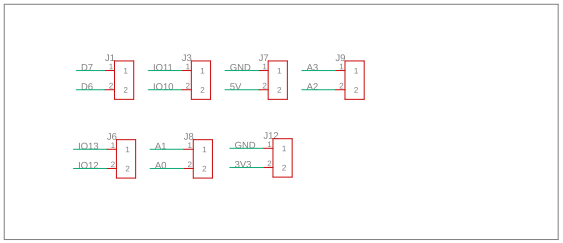
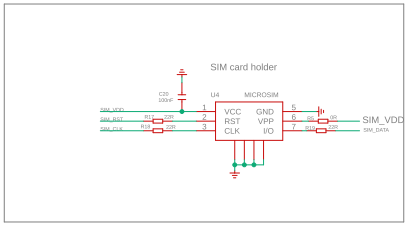
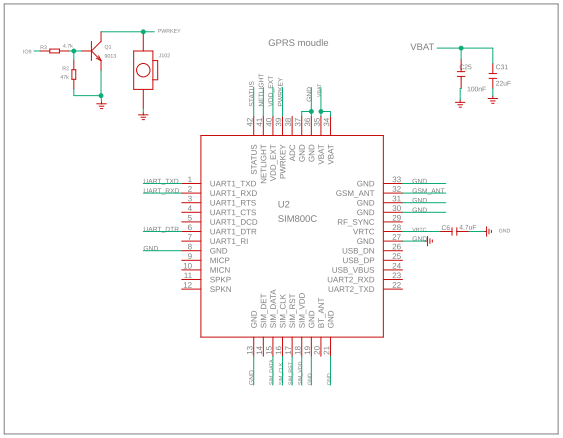
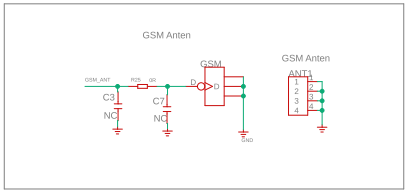

SCK
MISO
ICSP
5V
MOSI
J101
RESET
5V
D1
RED
10K
R7
R8
C23
100nF
5V
RESET
U3
Y2
CSTCE16M0V53-R0 16MHZ
R9
1M
C16
100nF
C21
100nF
C19
100nF
AREF
C26
100nF
C15
1uF
UCAP
C18
100nF
RD-
RD+
VUSB
VUSB
J11
VUSB
R43 22R
R44 22R
RD-
RD+
USB-MICRO-5P
VCC1
GND3
RESET
XTAL2
XTAL1
AVCC1
AVCC
AREF
VCC
GND
GND1
GND2
UCAP
UVCC
D-
D+
UGND
VBUS
PAD
(PCINT7/OC0A/OC1C/#RTS)PB7
(PCINT6/OC1B/OC4B/ADC13)PB6
(PCINT5/OC1A/#OC4B/ADC12)PB5
(ADC11/PCINT4)PB4
(PDO/MISO/PCINT3)PB3
(PDI/MOSI/PCINT2)PB2
(SCLK/PCINT1)PB1
(SS/PCINT0)PB0
(ICP3/CLK0/OC4A)PC7
(OC3A/#OC4A)PC6
(INT6/AIN0)PE6
(#HWB)PE2
(T0/OC4D/ADC10)PD7
(T1/#OC4D/ADC9)PD6
(XCK1/#CTS)PD5
(ICP1/ADC8)PD4
(TXD1/INT3)PD3
(RXD1/AIN1/INT2)PD2
(SDA/INT1)PD1
(OC0B/SCL/INT0)PD0
(ADC7/TDI)PF7
(ADC6/TDO)PF6
(ADC5/TMS)PF5
(ADC4/TCK)PF4
(ADC1)PF1
(ADC0)PF0
IO11
IO10
IO9
DTR_5V
MISO
MOSI
SCK
RX_LED
IO13
D5
D7
HWB
D6
IO12
TX_LED
D4
RXD_5V
TXD_5V
D2
D3
A0
A1
A2
A3
A4
A5
R39 NC
R40 NC
ATMEGA32U4-XUAU

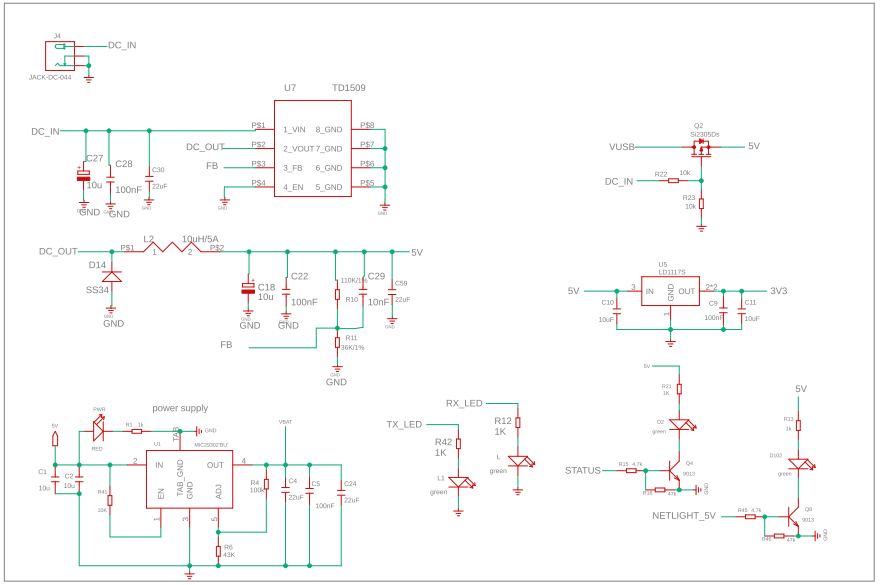

Uart voltage level shift
VDD_EXT
U6
5V
VCCA
VCCB
OE
VDD_EXT
UART_TXD
UART_RXD
UART_DTR
NETLIGHT
A1
A2
A3
A4
B1
B2
B3
B4
GND
1.2-3.6V
1.65-5.5V
TXD_5V
RXD_5V
DTR_5V
NETLIGHT_5V

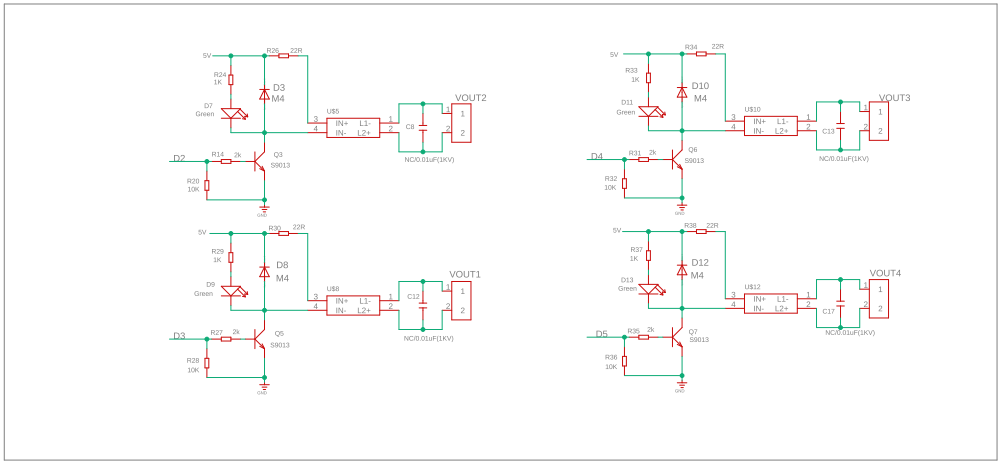

J1
D7
D6
J3
IO11
IO10
J7
GND
5V
J9
A3
A2
J6
IO13
IO12
J8
A1
A0
J12
GND
3V3


SIM card holder
U4
MICROSIM
VCC
RST
CLK
GND
VPP
I/O
SIM_VDD
SIM_RST
SIM_CLK
SIM_DATA


GPRS moudle
VBAT
PWRKEY
STATUS
NETLIGHT
VDD_EXT
PWRKEY
RESET
GND
GND
GND
VBAT
VBAT
U2
SIM800C
UART1_TXD
UART1_RXD
UART1_RTS
UART1_CTS
UART1_DCD
UART1_DTR
UART1_RI
GND
MICP
MICN
SPKP
SPKN
GND
GSM_ANT
GND
GND
RF_SYNC
VRTC
GND
USB_DN
USB_DP
USB_VBUS
UART2_RXD
UART2_TXD
GND
GSM_ANT
GND
GND
VRTC
GND
GND
SIM_VDD
SIM_RST
SIM_DATA
SIM_CLK
SIM_VDD
SIM_VDD
GND
BAT_ANT
GND
4.7uF


GSM Anten
GSM
GSM_ANT
C3
NC
C7
NC
GND
GSM Anten
ANT1


J4
DC_IN
JACK-DC-044
U7
TD1509
DC_IN
DC_OUT
FB
1_VIN
2_VOUT
3_FB
4_EN
8_GND
7_GND
6_GND
5_GND
C27
10u
C28
100nF
C30
22uF
GND
GND
DC_OUT
L2
10uH/5A
D14
SS34
C18
10u
C22
100nF
C29
10nF
C59
22uF
5V
FB
R10 110K/1%
R11 36K/1%
GND
power supply
J5
R1 1K
TAB
GND
VBAT
U1
MIC29302WU
IN
EN
TAB_GND
GND
OUT
ADJ
C1
10u
C2
10u
R41
10K
R4
100K
C4
22uF
C5
100nF
C24
22uF
R5
43K
R6
43K
RX_LED
TX_LED
R12
1K
R42
1K
green
green
VUSB
5V
Q2
SI2055Ds
DC_IN
R22
10k
R23
10k
U5
LD1117S
IN
GND
OUT
5V
C10
10uF
2v2
C9
100nF
3V3
C11
10uF
STATUS
NETLIGHT_5V
R13
1k
D102
green
Q8
9013
R45 4.7k
R46 4.7k
GND


5V
R26 22R
R24
1K
D3
M4
D7
Green
U$5
IN+
IN-
L1-
L2+
VOUT2
C8
NC/0.01uF(1KV)
D2
R14 2K
Q3
S9013
R20
10K
R30 22R
R29
1K
D8
M4
D9
Green
U$8
VOUT1
C12
NC/0.01uF(1KV)
D3
R27 2K
Q5
S9013
R28
10K
R34 22R
R33
1K
D10
M4
D11
Green
U$10
VOUT3
C13
NC/0.01uF(1KV)
D4
R31 2K
Q6
S9013
R32
10K
R38 22R
R37
1K
D12
M4
D13
Green
U$12
VOUT4
C17
NC/0.01uF(1KV)
D5
R36 2K
Q7
S9013
R36
10K