MD1
TB1
1
2
TB2
Current Sensor
1
2
+12
+5
GND
IN
OUT
U2
1
2
3
D1
TVS diode
R1
Resistor 10K
PH2 Bluetooth
1 2 3 4 5 6
U1
ATmega328p
Voltage sensor
F?
PH1
Current
1 2 3
R?
PH3
Volt
1 2 3
7 20
VCC AVCC
1 (PCINT14/RESET) PC6   PC5 (ADC5/SCL/PCINT13) 28
2 (PCINT16/RXD) PD0   PC4 (ADC4/SDA/PCINT12) 27
3 (PCINT17/TXD) PD1   PC3 (ADC3/PCINT11) 26
4 (PCINT18/INT0) PD2   PC2 (ADC2/PCINT10) 25
5 (PCINT19/OC2B/INT1) PD3   PC1 (ADC1/PCINT9) 24
6 (PCINT20/XCK/T0) PD4   PC0 (ADC0/PCINT8) 23
                             AREF 21
9 (PCINT6/XTAL1/TOSC1) PB6
10 (PCINT7/XTAL2/TOSC2) PB7 PB5 (SCK/PCINT5) 19
11 (PCINT21/OC0B/T1) PD5   PB4 (MISO/PCINT4) 18
12 (PCINT22/OC0A/AIN0) PD6   PB3 (MOSI/OC2A/PCINT3) 17
13 (PCINT23/AIN1) PD7   PB2 (SS/OC1B/PCINT2) 16
14 (PCINT0/CLKO/ICP1) PB0   PB1 (OC1A/PCINT1) 15
                             GND GND
                             8 22
DC1
Crystal
Y1
EN
C1
cap 22pF
C2
cap 22pF
MD2
6 5 4 3 2 1
PH4
C3
10uF
C4
10uF
GND
MD1
1 2 3 4 5 6
PH5
MD2
2
1
TB4
PH6
FUS
1 2 3 4
PH7
LUS
1 2 3 4
PH8
RGB
1 2 3 4

Title
Size A4
Number
Revision
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Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
cap 22pF		C1, C2	CAP 22pF	cap 22pF	2
10uF		C3, C4	Bulk capacitor	Bulk Capacitor	2
TVS diode		D1	TVS diode	TVS diode	1
DC Jack		DC1	DC jack	DC Jack	1
Fuse		F?	Fuse	Fuse	1
LED		L?	LED	LED	1
Current		PH1	Female pin header 3pin	Pin Headers Female 3pin	1
Bluetooth		PH2	Pin Headers Female 6pin	Pin Headers Female 6pin	1
Volt		PH3	Female pin header 3pin	Pin Headers Female 3pin	1
MD2		PH4	Pin Headers Female 6pin	Pin Headers Female 6pin	1
MD1		PH5	Pin Headers Female 6pin	Pin Headers Female 6pin	1
FUS		PH6	Pin header female 4 pin	pin header female 4pin	1
LUS		PH7	Pin header female 4 pin	pin header female 4pin	1
RGB		PH8	Pin header female 4 pin	pin header female 4pin	1
Resistor 10K		R1, R?	Resistor 10K	Resistor 10K	2
MD1		TB1	terminalblock	Terminal 2pin	1
Current Sensor		TB2	terminalblock	Terminal 2pin	1
Voltage sensor		TB3	terminalblock	Terminal 2pin	1
MD2		TB4	terminalblock	Terminal 2pin	1
ATmega328p		U1	ATmega328p	ATmega328p	1
LM7805CT		U2	LM7028CT	LM7805CT	1
ECS-160-S-4		Y1	ECS-160-S-4	ECS-160-S-4	1