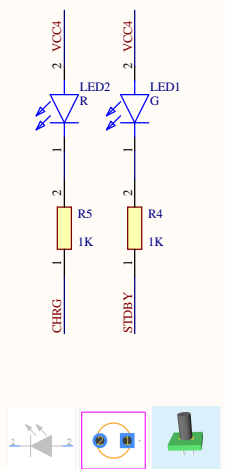
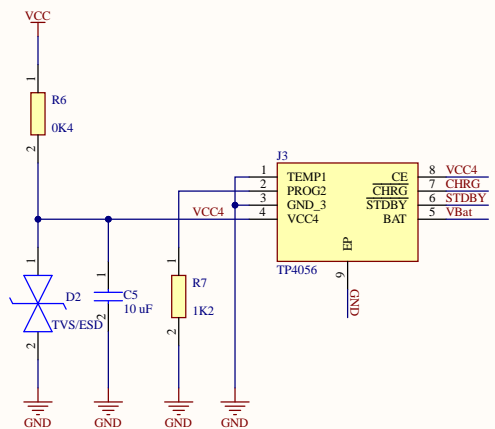


1	2	3	4
A			A
B			B
C			C
D			D
1	2	3	4

Title ND50-Raptor		
Size A4	Number 1	Revision
Date: 3.07.2025	Sheet of 3	
File: C:\Users\...\main.SchDoc	Drawn By: Nelson F. Dzokam, B.Eng	

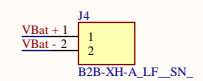
BMS - Battery Management System

Battery charge controller (CC/CV)

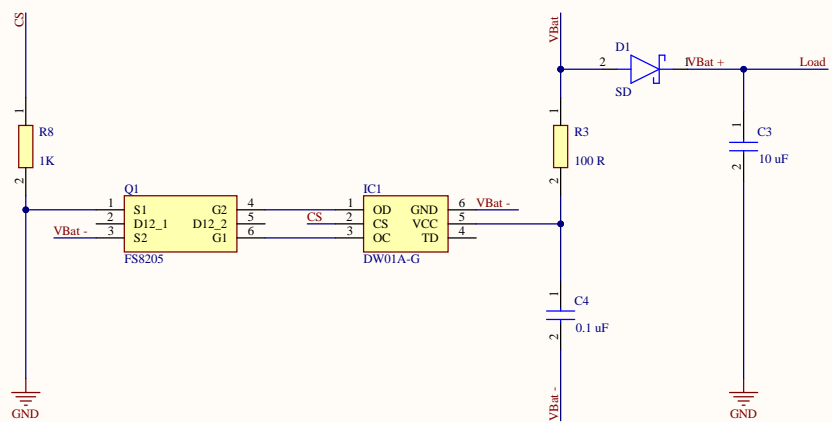


Mit einem Widerstand [R7] von 1,2 kΩ lässt sich die Ladeleistung des [J3] (TP4056) so einstellen, dass an Pin 5 eine Stromstärke von 1 A anliegt

Battery's Connector



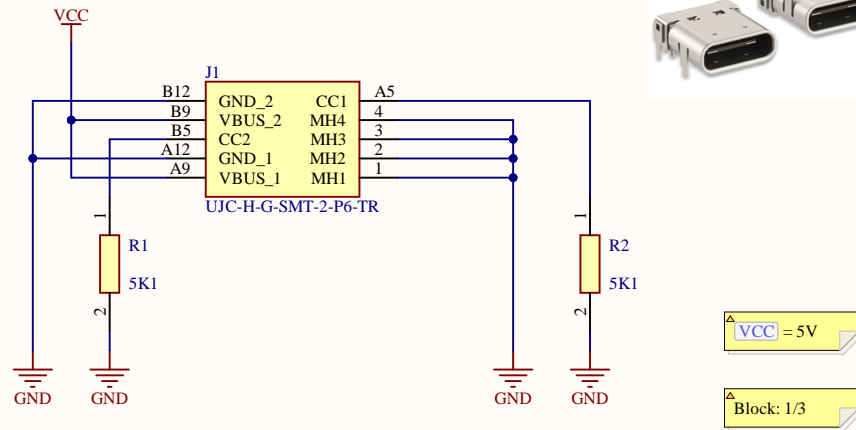
Battery Protection



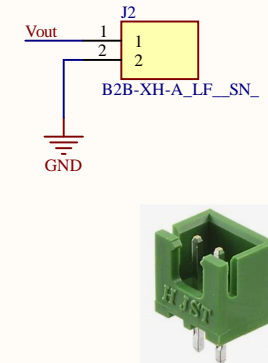
Title		
ND50-Raptor		
Size	Number	Revision
A3	2	
Date:	3.07.2025	Sheet of 3
File:	C:\Users\BMS\SchDoc	Drawn By: Nelson F. Dzokam, B.Eng

Block: 2/3

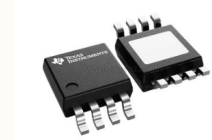
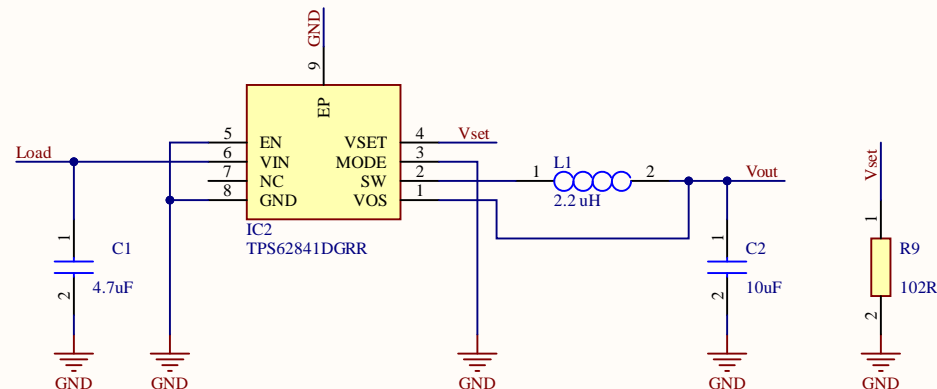
USB - Power Supply



Mouse's Connector



DC/DC Buck Converter



Der DC/DC-Wandler [IC2 ObjectType":2] erhält eine Eingangsspannung von 5V (Load) und wandelt diese in eine Ausgangsspannung Vout von 1,5V für die Maus um. Die Ausgangsspannung wird durch einen Widerstand R9 von 102 Ohm auf

Title		
ND50-Raptor		
Size	Number	Revision
A4	3	
Date:	3.07.2025	Sheet of 3
File:	C:\Users\...Power Supply und DC-DC Converter\Drawings\Doc Nelson F. Dzokam, B.Eng	

Comment	Description	Designator	Footprint	LibRef	Quantity
4.7uF	Capacitor 885012107009	C1	CAPC2012X145N	885012107009	1
10uF	Capacitor C0805C106K7PACTU	C2	C0805	C0805C106K7PACTU	1
10 uF	Capacitor C0805C106K7PACTU	C3, C5	C0805	C0805C106K7PACTU	2
0.1 uF	Capacitor 08056D104KAT2A	C4	C0805	C0805C106K7PACTU	1
SD	Schottky Diode PMEG3020EP-QX	D1	SODFL4725X110N	PMEG3020EP-QX	1
TVS/ESD	Diode ESD (Bi-directional) PESD5V0S1BAF	D2	SOD2512X110N	PESD5V0S1BAF	1
DW01A-G	Integrated Circuit	IC1	SOT95P280X135-6N	DW01A-G	1
TPS62841DGRR	Integrated Circuit	IC2	SOP65P490X110-9N	TPS62841DGRR	1
UJC-H-G-SMT-2-P6-TR	Connector	J1	UJCHGSM12P6TR	UJC-H-G-SMT-2-P6-TR	1
B2B-XH-A_LF__SN__	Connector B2B-XH-A_LF__SN__ Connector B2B-XH-A_LF__SN__	J2, J4	SHDR2W64P0X250_1X 2_740X575X700P	B2B-XH-A_LF__SN__	2
TP4056	Connector	J3	SOIC127P600X175-9N	TP4056	1
2.2 uH	Inductor DFE201612E-2R2M=P2	L1	1286ASH1R0MP2	DFE201612E-2R2M=P2	1
G	LED TLHG4400 https://www.mouser.de/ProductDetail/Vishay-Semiconductors/TLHG4400?qs=JSo%252BAIZDFQF4915wuwPg%3D%3D	LED1	TLHG4400	TLHG4400	1
R	LED TLHR4400 https://www.mouser.de/ProductDetail/Vishay-Semiconductors/TLHR4400?qs=V6eIMVxJPx3guYUdjVjA%3D%3D&utm_source=digipart&utm_medium=aggregator&utm_campaign=TLHR4400&utm_term=TLHR4400&utm_content=Vishay	LED2	TLHR4400	TLHR4400	1
FS8205	MOSFET (N-Channel)	Q1	FS8205	FS8205	1
5K1	Resistor CRCW08055K10FKEAC	R1, R2	RESC2012X60N	CRCW08055K10FKEAC	2
100 R	Resistor CRCW0805100RFKEAHP	R3	RESC2012X60N	CRCW0805100RFKEAHP	1
1K	Resistor RC0805FR-071KL	R4, R5, R8	RESC2012X60N	RC0805FR-071KL	3
0K4	Resistor 0805W8F400LT5E 400mOhm = 0.4K	R6	RESC2012X60N	RC0805FR-071KL	1
1k2	Resistor ERJ-PB6B1201V	R7	RESC2012X70N	ERJ-PB6B1201V	1
102R	Resistor ERJ-6ENF1020V	R9	ERJ6ENF1000V	ERJ-6ENF1020V	1