

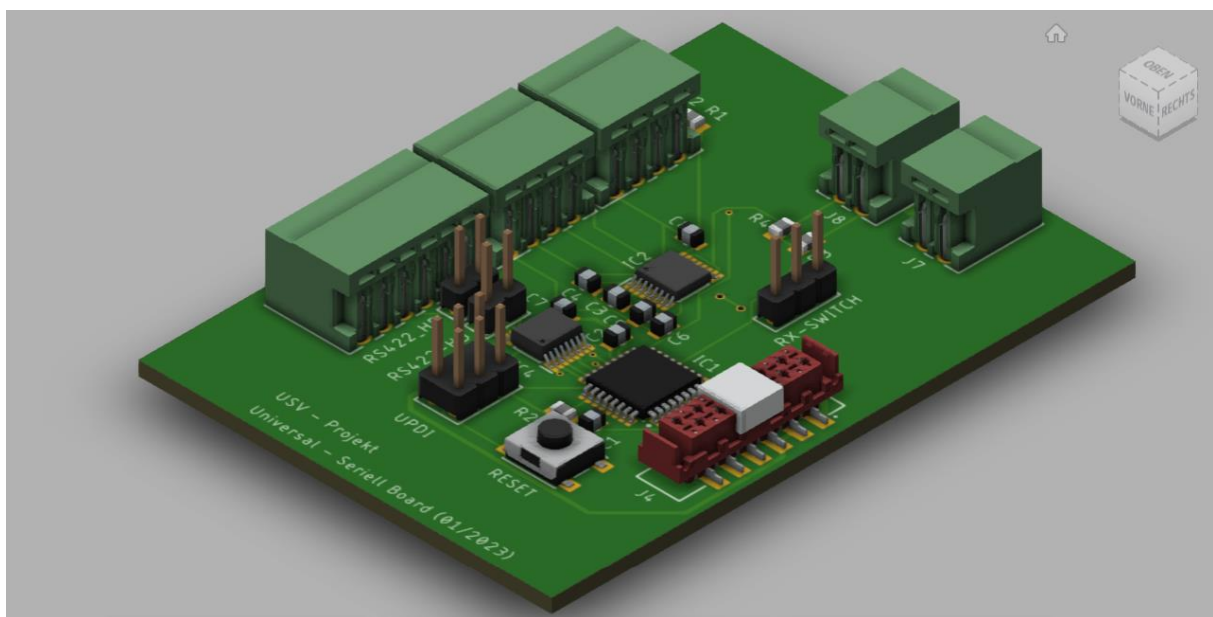
Datenblatt

Universal - Seriell Board (01/2023)

Projekt: Unmanned Surface Vehicle

Mechatronik_Projekt_2022

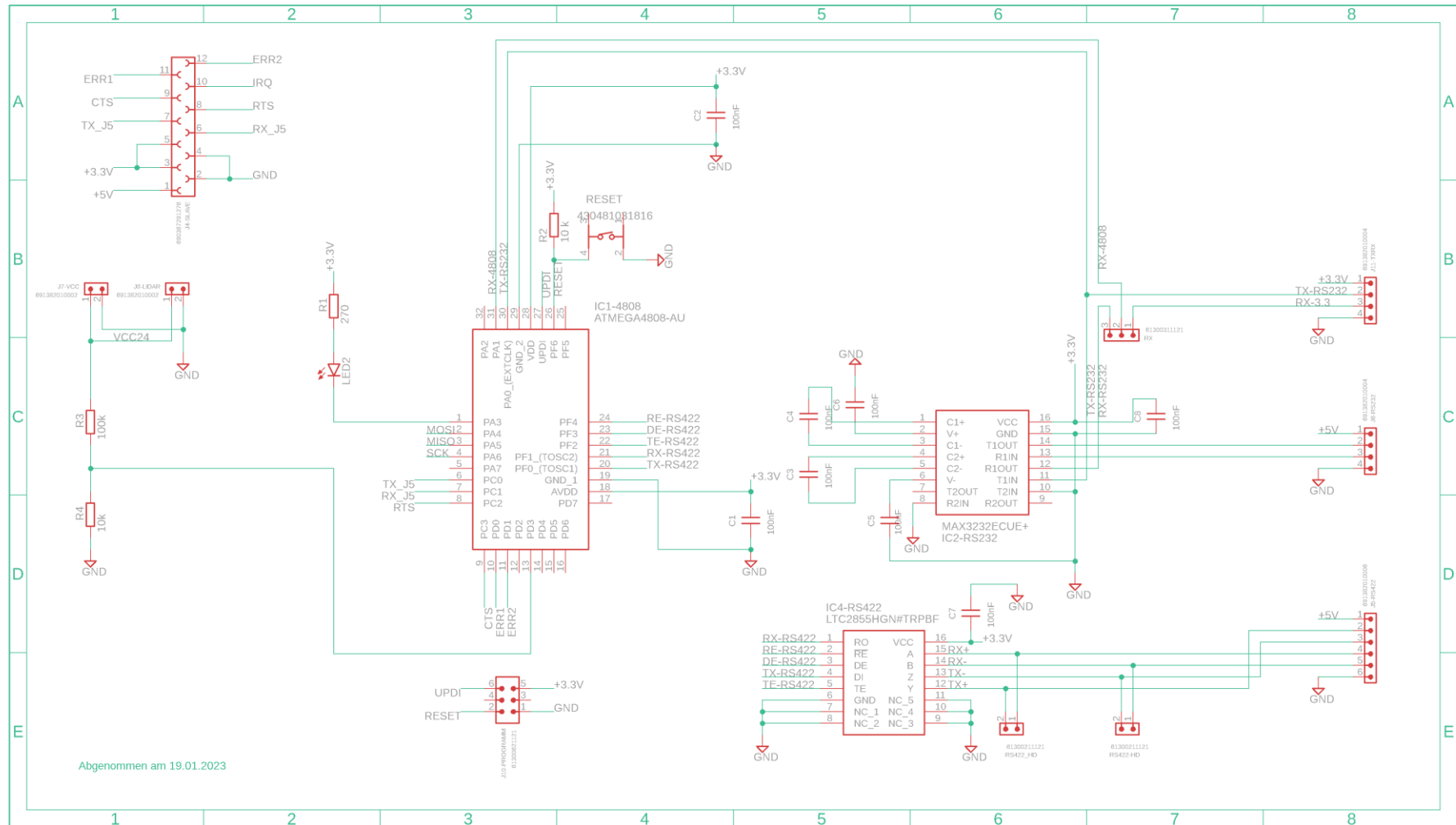
Studierende: Robert Neumann, Benjamin Hoppe



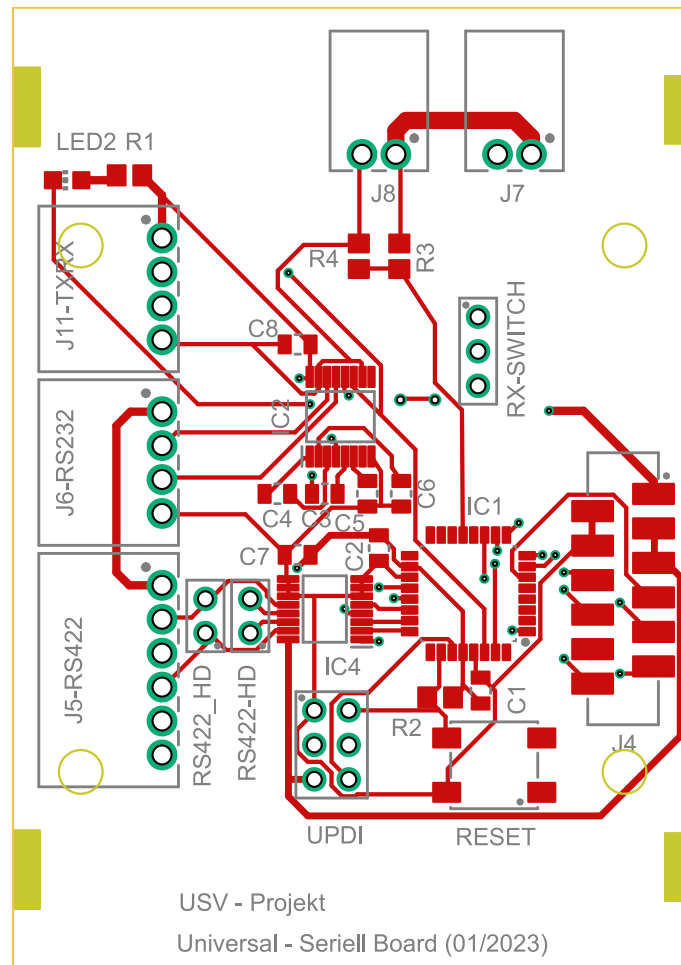
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1 Schaltplan

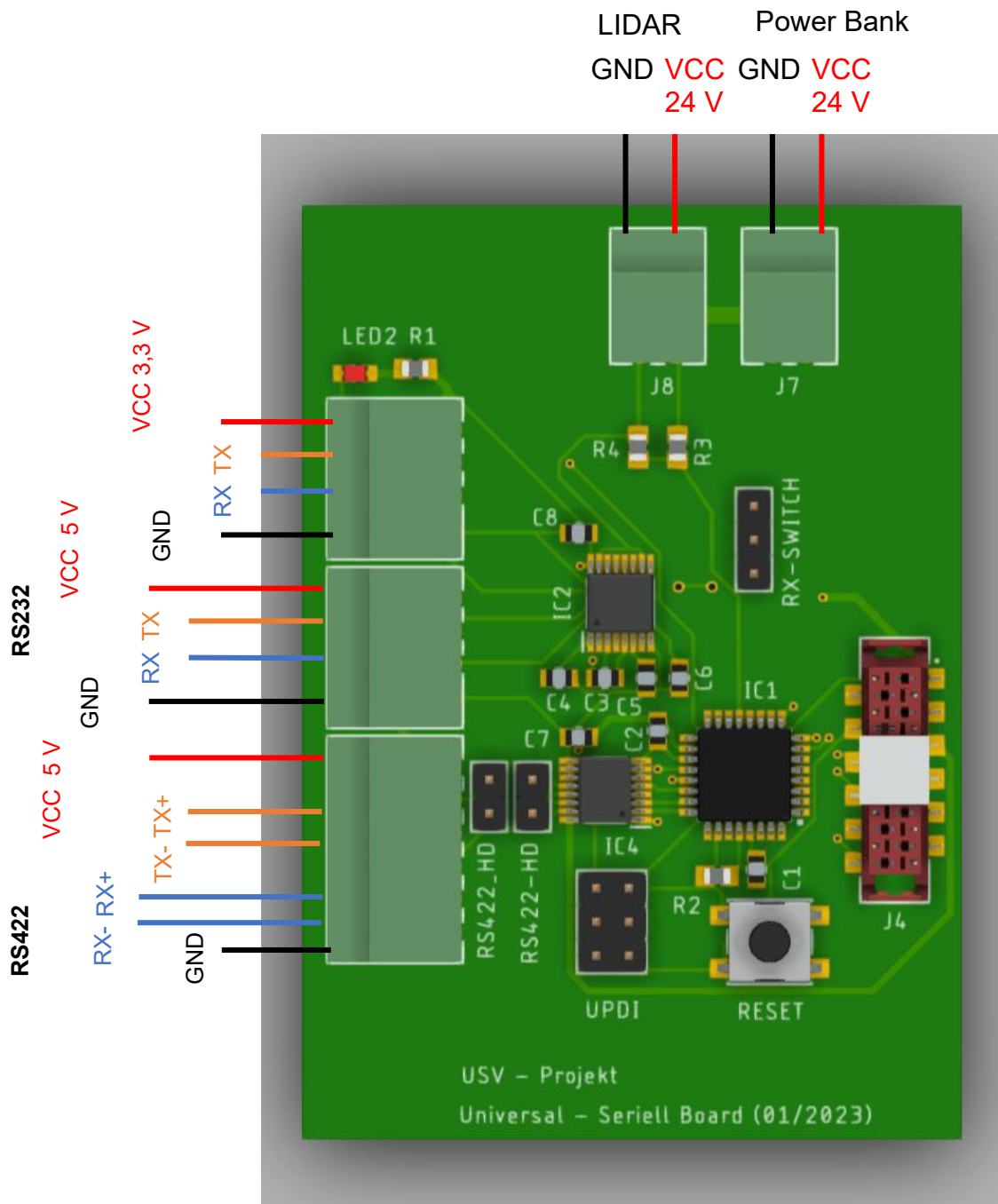


2 PCB

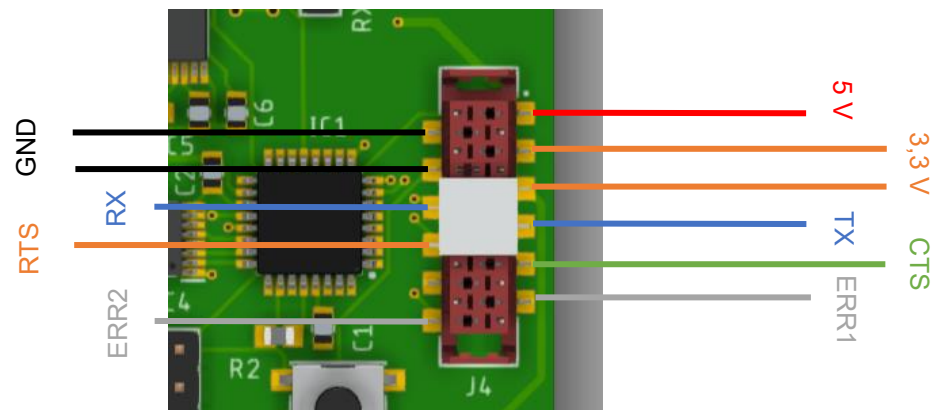


3 Pinbelegung

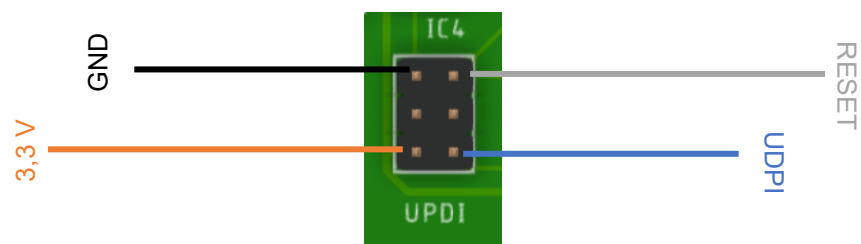
3.1 Stecker



3.2 Stecker Slave-Modul

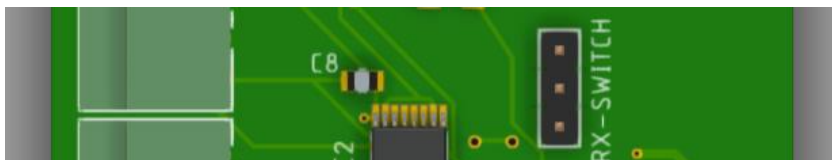


3.3 Programmierstecker UDPI

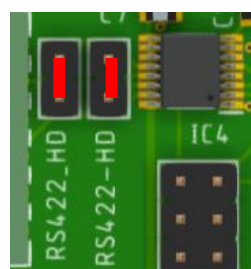


3.4 Jumper-Pins

umschalten zwischen TX-RX und RS232 (siehe Schaltplan)



Halbduplex wenn RS422_HD-Pins gebrückt.



4 Bill of Materials

Part	Value	Device	Package	Description
C1	100nF	WCAP-CSST_0805_8853822 07007	WCAP-CSST_0805	WCAP-CSST MLCCs
C2	100nF	WCAP-CSST_0805_8853822 07007	WCAP-CSST_0805	WCAP-CSST MLCCs
C3	100nF	WCAP-CSST_0805_8853822 07007	WCAP-CSST_0805	WCAP-CSST MLCCs
C4	100nF	WCAP-CSST_0805_8853822 07007	WCAP-CSST_0805	WCAP-CSST MLCCs
C5	100nF	WCAP-CSST_0805_8853822 07007	WCAP-CSST_0805	WCAP-CSST MLCCs
C6	100nF	WCAP-CSST_0805_8853822 07007	WCAP-CSST_0805	WCAP-CSST MLCCs
C7	100nF	WCAP-CSST_0805_8853822 07007	WCAP-CSST_0805	WCAP-CSST MLCCs
C8	100nF	WCAP-CSST_0805_8853822 07007	WCAP-CSST_0805	WCAP-CSST MLCCs
IC1	ATMEGA4808-AU	ATMEGA4808-AU	QFP80P900X900 X120-32N	8-bit Microcontrollers - MCU 20MHz, 48KB, TQFP
IC2	MAX3232ECU E+	MAX3232ECUE+	SOP65P640X110 -16N	MAX3232ECUE+, Line Transceiver, EIA/TIA-232, RS-232, V.24, V.28 2 2 2 250 kbit/s, 3 5.5 V, 16-Pin TSSOP
IC4	LTC2855HGN #TRPBF	LTC2855HGN#TRPBF	SOP64P601X175 -16N	Single Transmitter/Receiver RS-422/RS-485 Automotive 16-Pin SSOP N T/R

J4	69036729127 6	690367291276	690367291276	WR-MM Female SMT Connector with Latch & Polarization
J5- RS422	69138201000 6	691382010006	691382010006	WR-TBL Serie 382 - 2.50 mm Horizontal PCB Header
J6- RS232	69138201000 4	691382010004	691382010004	WR-TBL Serie 382 - 2.50 mm Horizontal PCB Header
J7	69138201000 2	691382010002	691382010002	WR-TBL Serie 382 - 2.50 mm Horizontal PCB Header
J8	69138201000 2	691382010002	691382010002	WR-TBL Serie 382 - 2.50 mm Horizontal PCB Header
J11- TXRX	69138201000 4	691382010004	691382010004	WR-TBL Serie 382 - 2.50 mm Horizontal PCB Header
LED2		LEDCHIP-LED0805	CHIP-LED0805	LED
R1	120	R-EU_R0805	R0805	RESISTOR, European symbol
R2	10 k	R-EU_R0805	R0805	RESISTOR, European symbol
R3	100k	R-EU_R0805	R0805	RESISTOR, European symbol
R4	10k	R-EU_R0805	R0805	RESISTOR, European symbol
RESET	43048103181 6	430481031816	430481031816	WS-TASV SMT Washable Tact Switch 6x6 mm
RS422- HD	61300211121	6130XX11121_613002 11121	61300211121	WR-PHD 2.54 mm THT Pin Header
RS422_ HD	61300211121	6130XX11121_613002 11121	61300211121	WR-PHD 2.54 mm THT Pin Header
RX- SWITC H	61300311121	6130XX11121_613003 11121	61300311121	WR-PHD 2.54 mm THT Pin Header
UPDI	61300621121	6130XX21121_613006 21121	61300621121	WR-PHD 2.54 mm THT Dual Pin Header