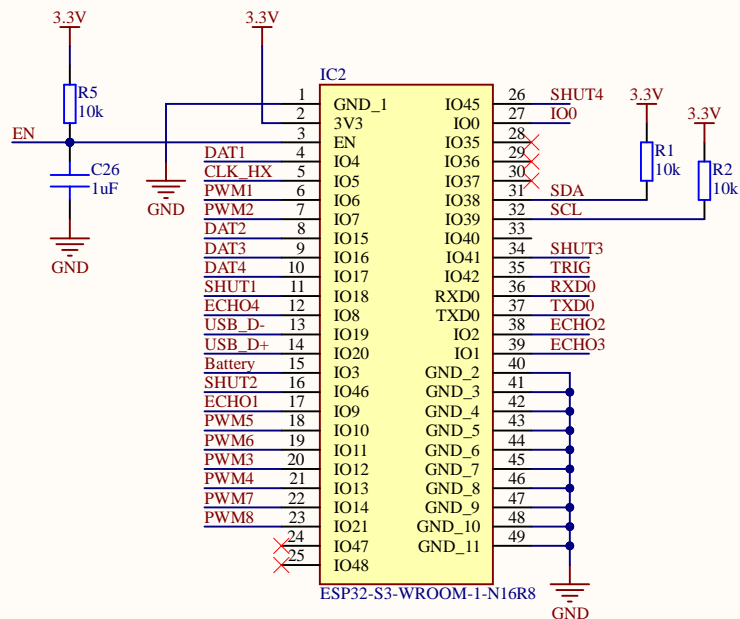
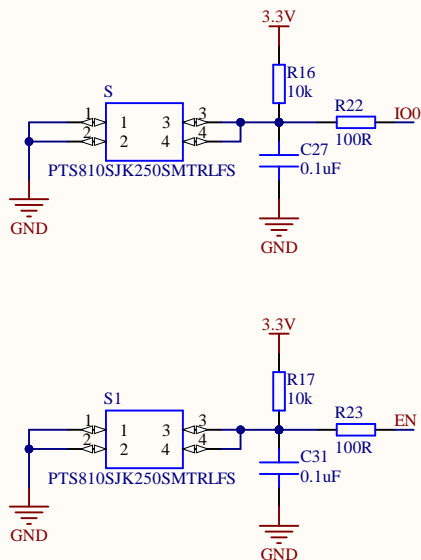


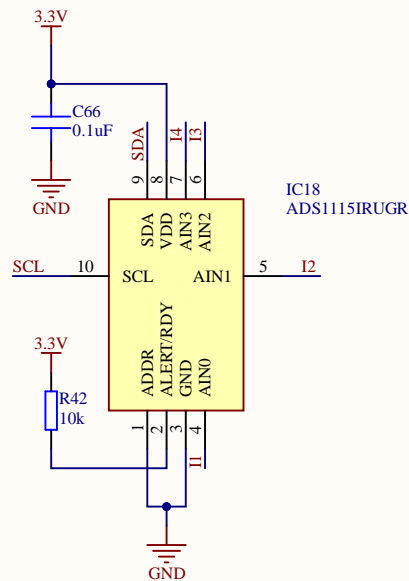
MCU ESP-32-S3



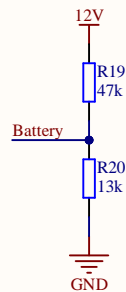
Buttons



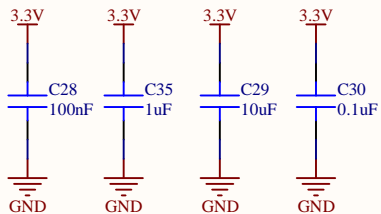
ADC from current measurment



Voltage measure

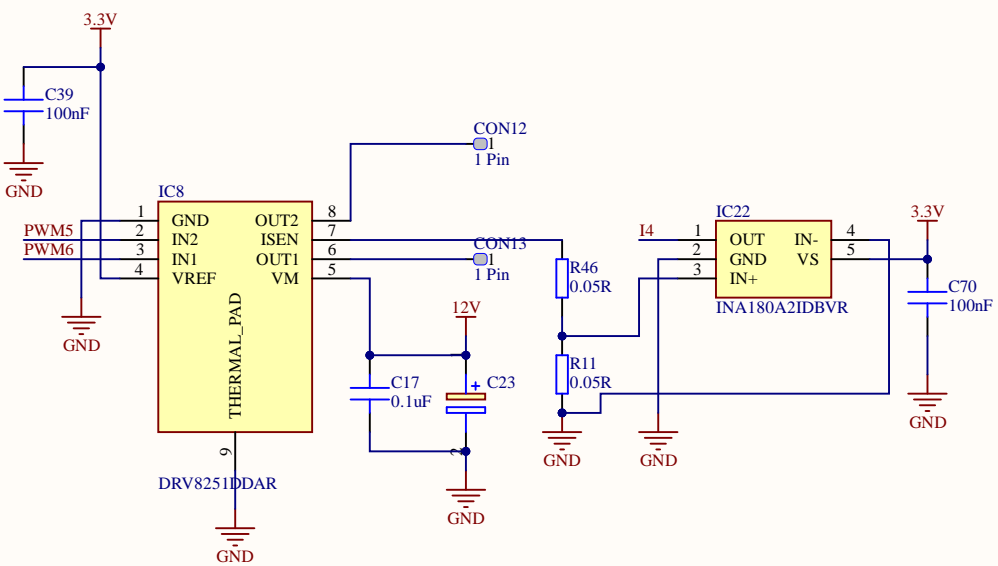
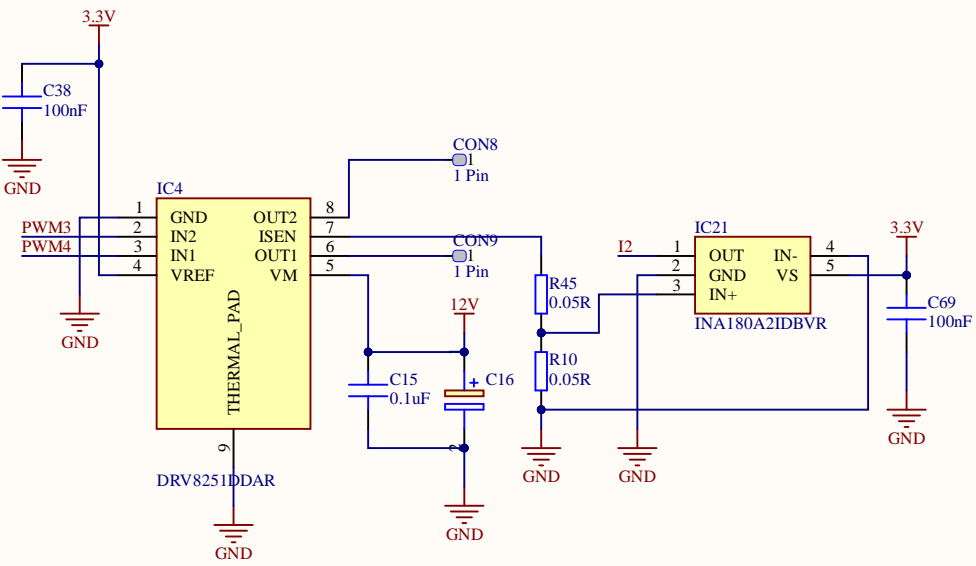
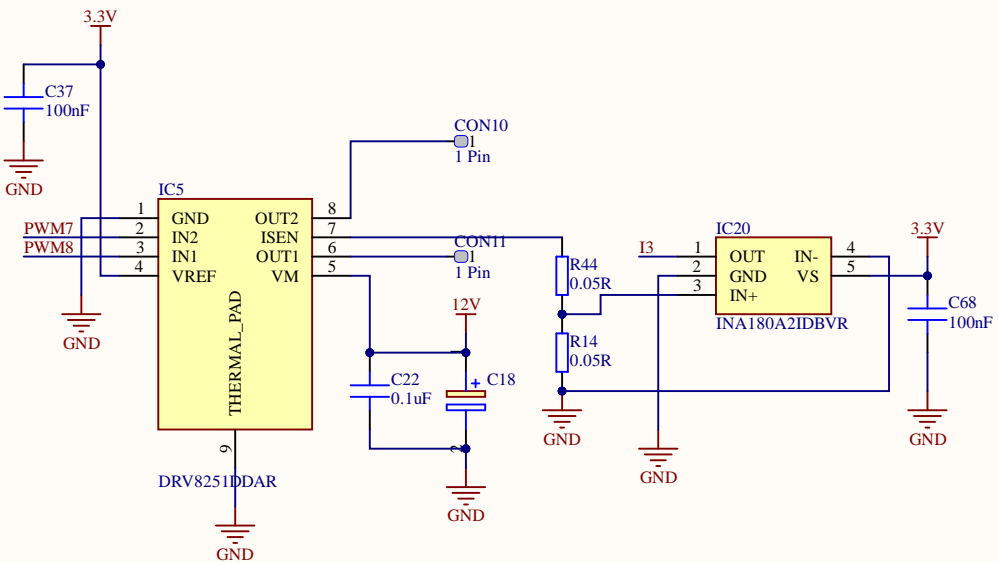
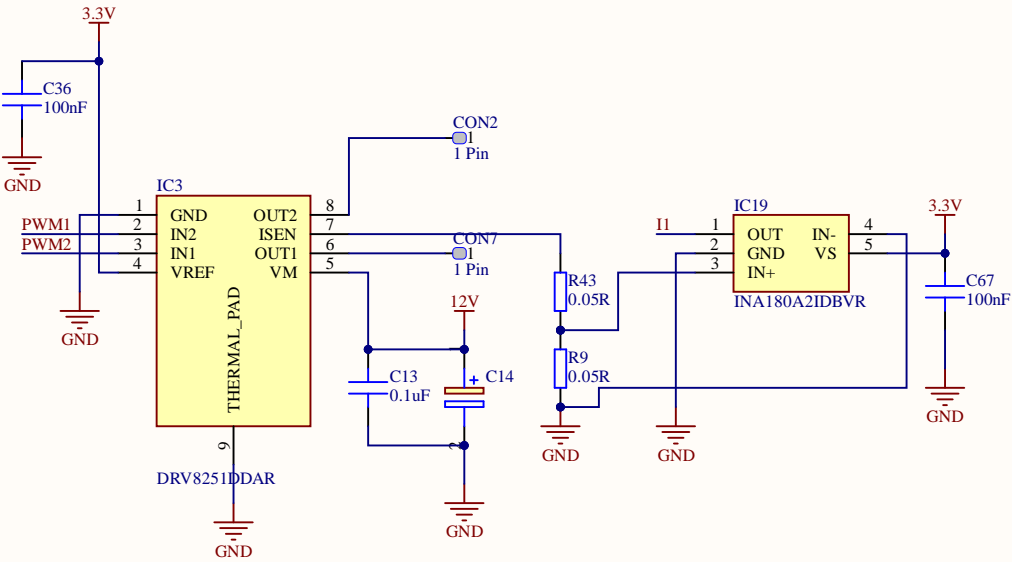


MCU filtration

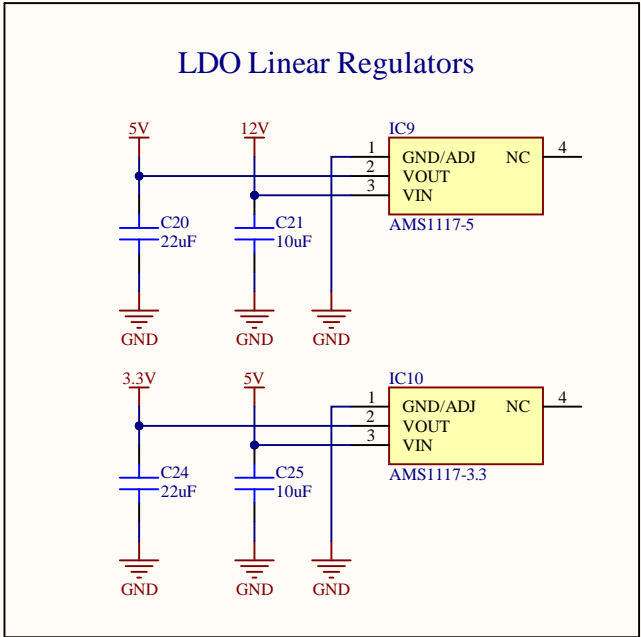
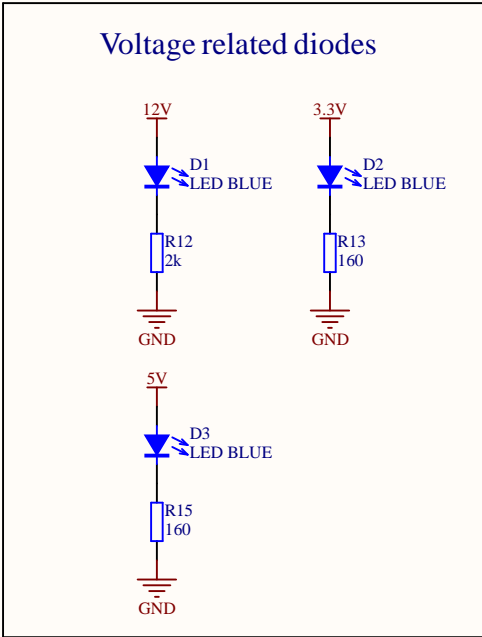
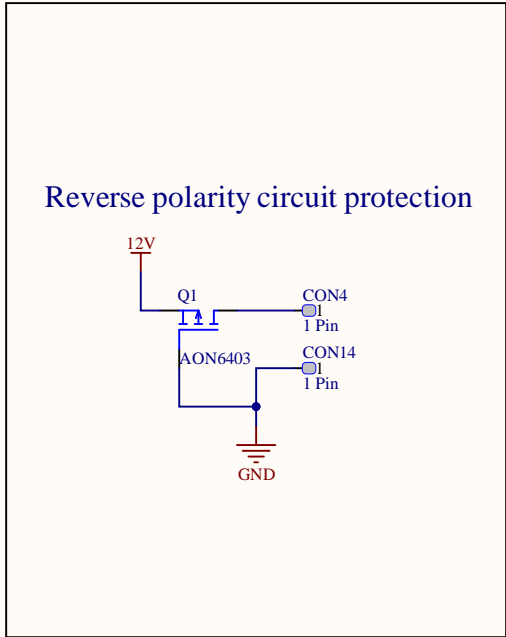
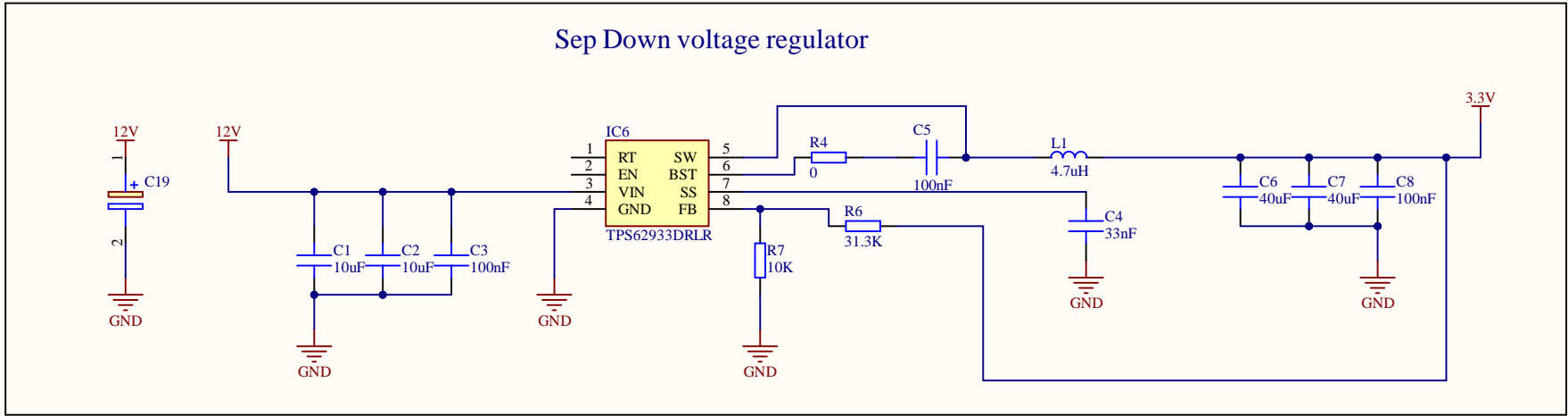


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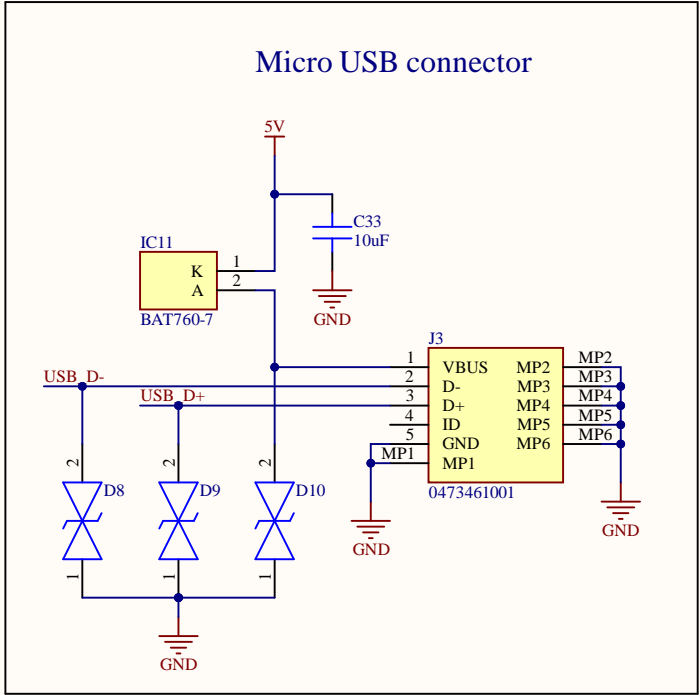
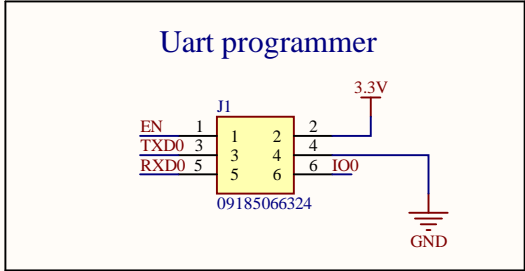
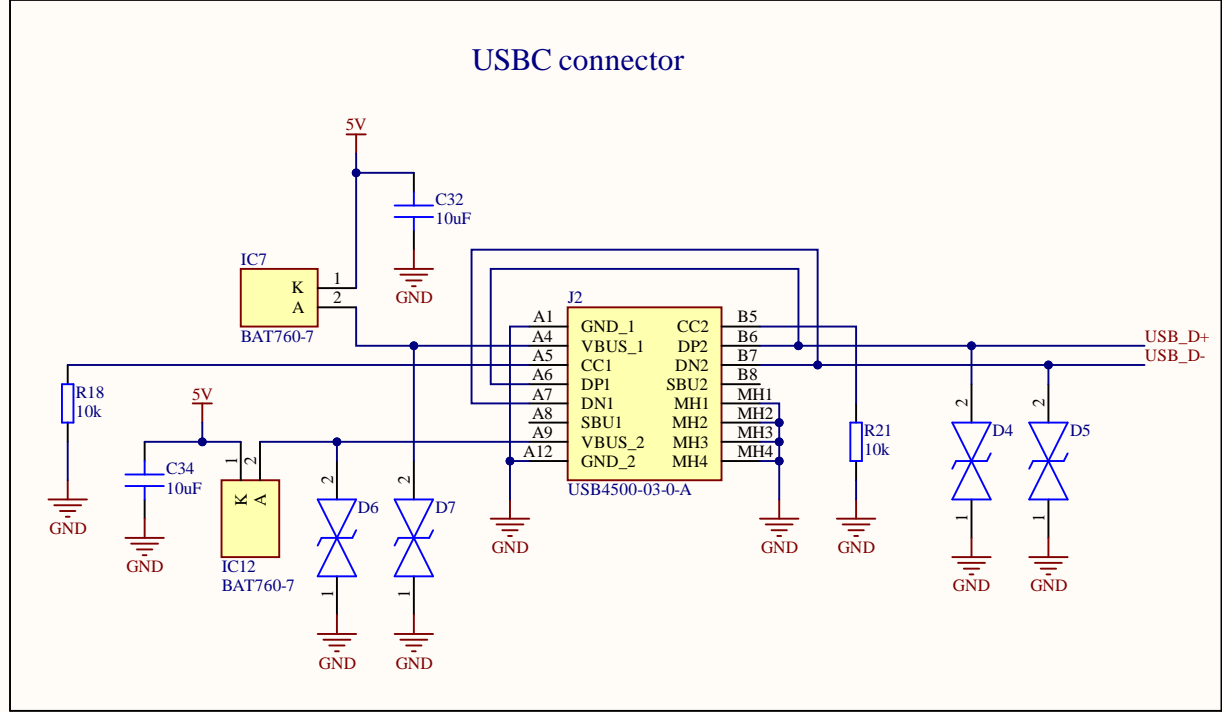
DC Drivers



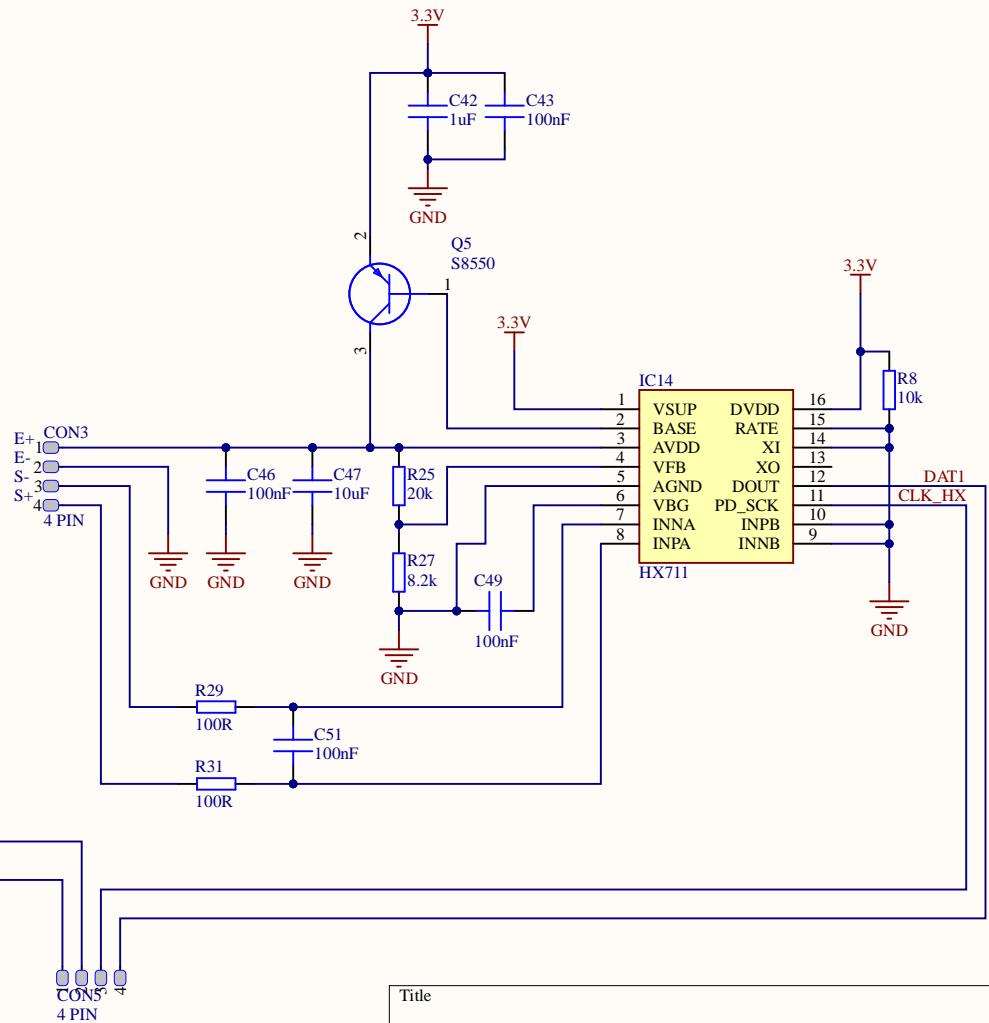
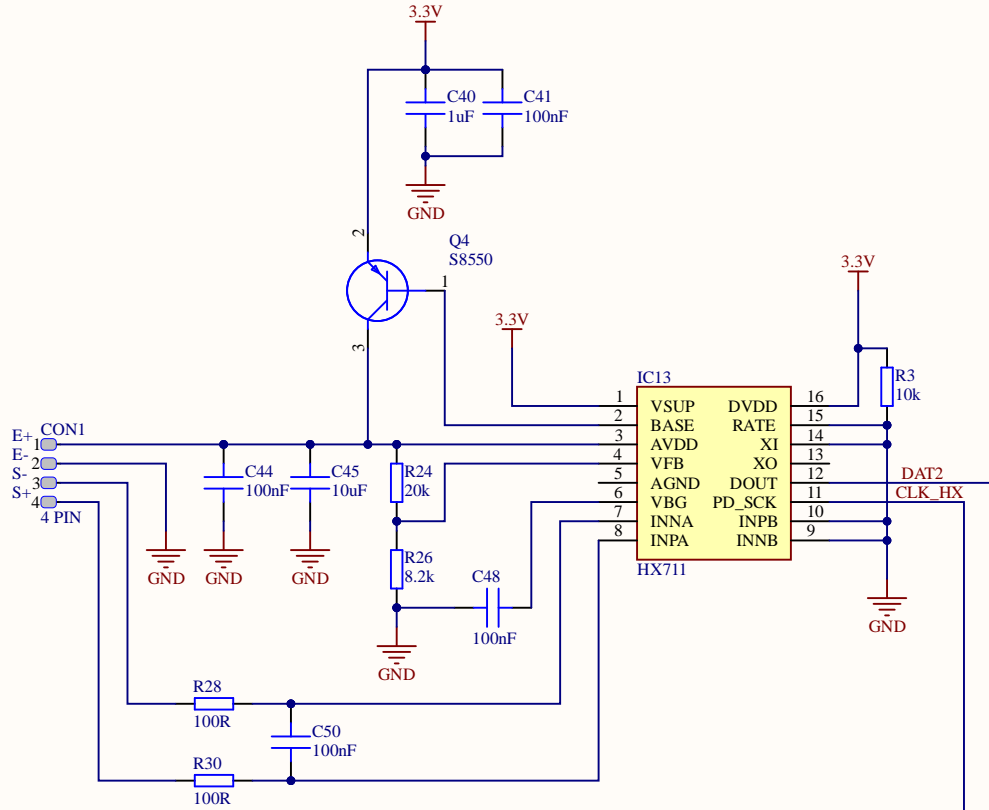
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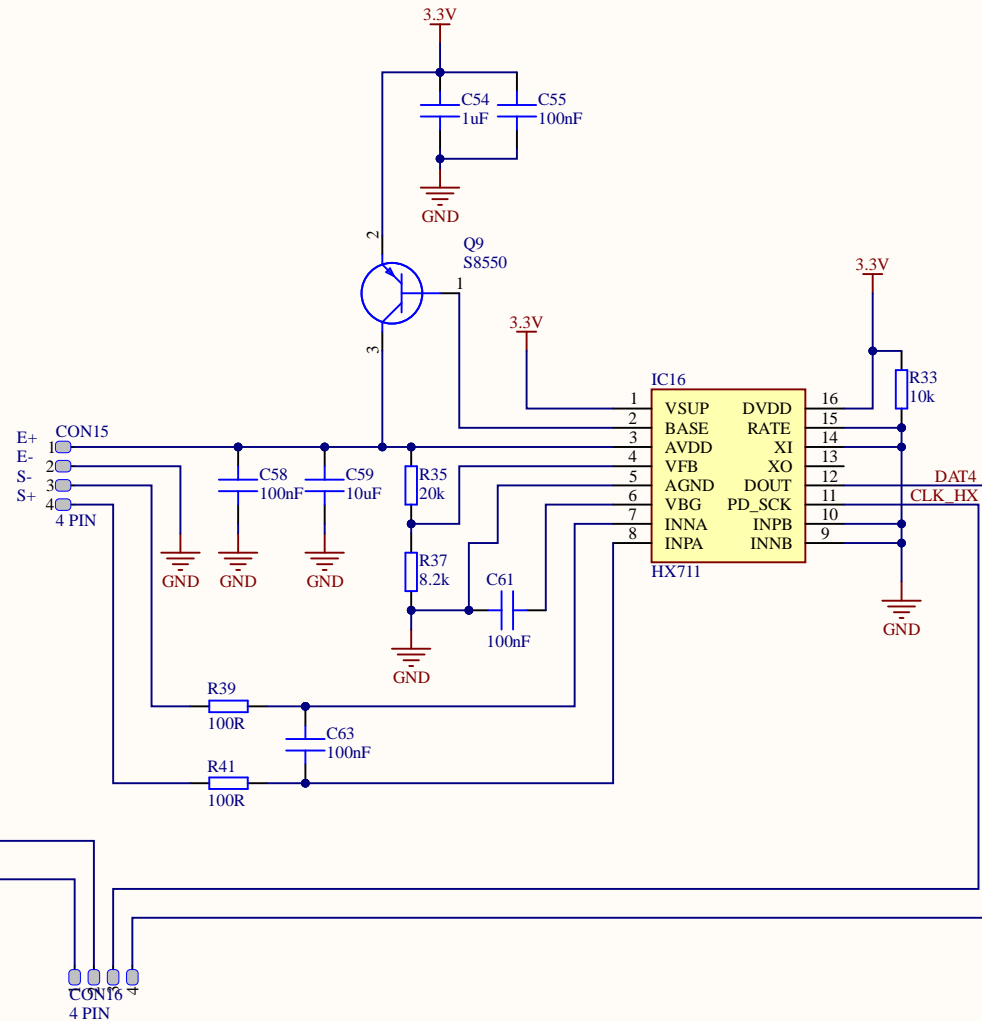
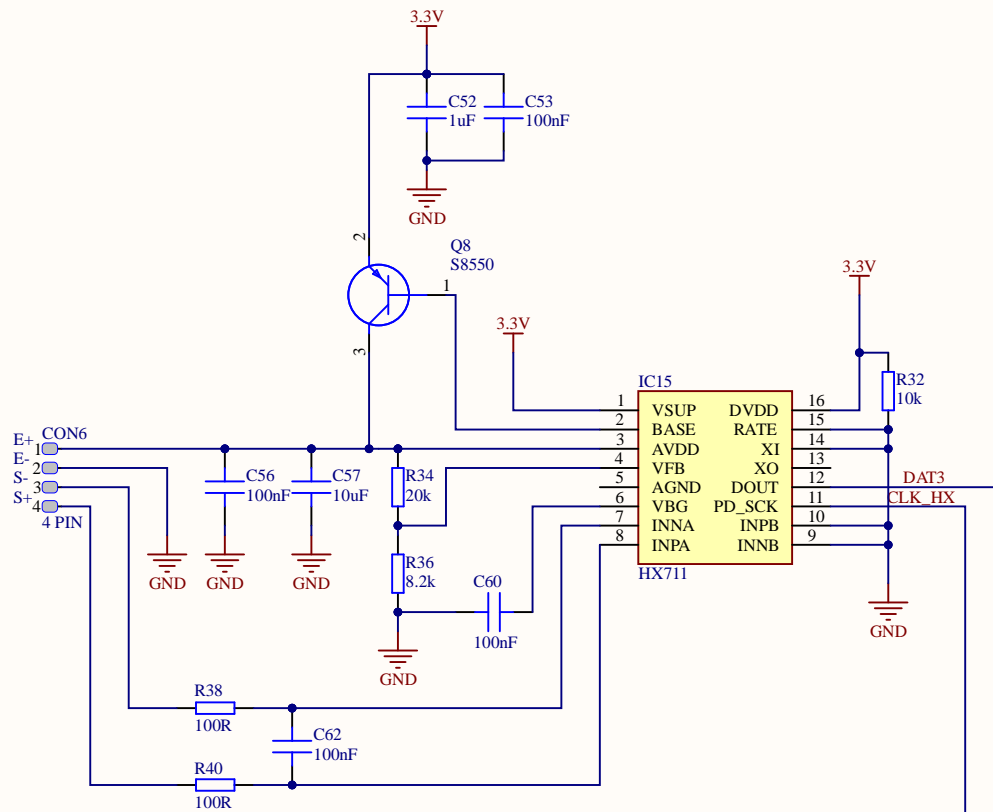
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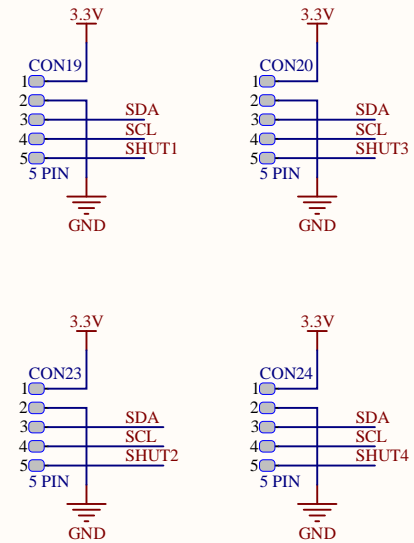


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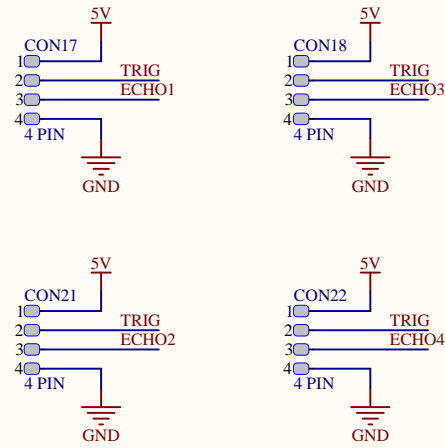


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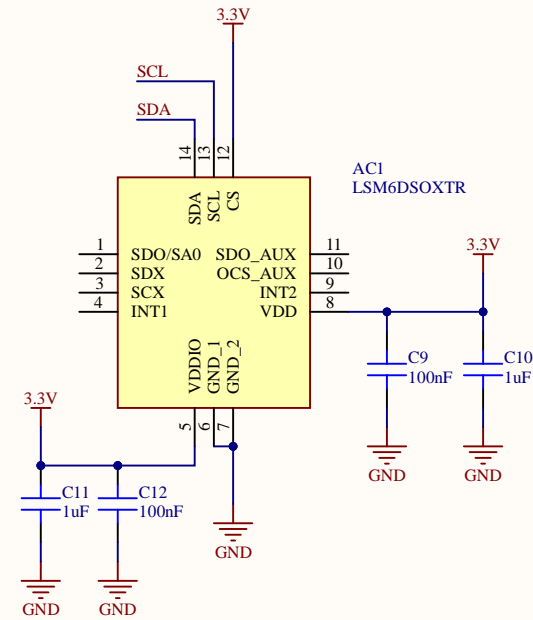
VL53L0X Laser distance sensors



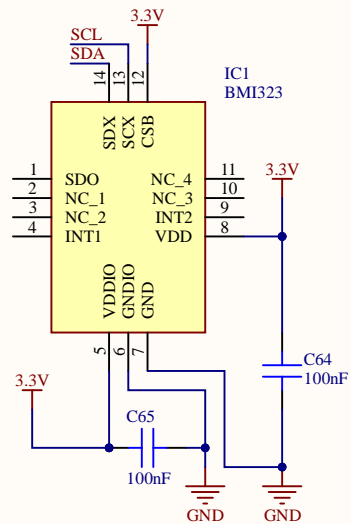
HCSR04 Ultrasonic distance sensors



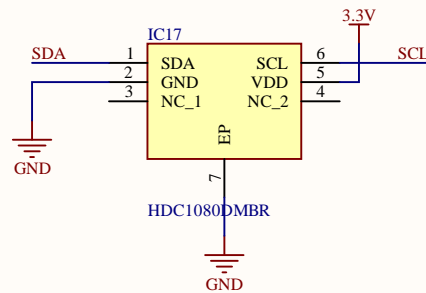
Accelerometer with gyroscope



Backup accelerometer with gyroscope



Temperature sensor



Title		
Size	Number	Revision
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Date:	4.13.2025	Sheet of
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Comment	Description	Designator	Footprint	LibRef	Quantity
LSM6DSOXTR	Accelerometer	AC1	LGA-14_1	LSM6DSOXTR	1
10uF	MLCC Capacitor	C1, C2	C 1206	Capacitor	2
100nF	MLCC Capacitor	C3, C8	C 0603	Capacitor	2
33nF	MLCC Capacitor	C4	C 0402	Capacitor	1
100nF	MLCC Capacitor	C5, C9, C12, C28, C36, C37, C38, C39, C41, C43, C44, C46, C48, C49, C50, C51, C53, C55, C56, C58, C60, C61, C62, C63, C64, C65, C67, C68, C69, C70	C 0402	Capacitor	30
40uF	MLCC Capacitor	C6, C7	C 1206	Capacitor	2
1uF	MLCC Capacitor	C10, C11, C26, C35, C40, C42, C52, C54	C 0402	Capacitor	8
0.1uF	MLCC Capacitor	C13, C17, C22, C27, C30, C31, C66	C 0402	Capacitor	7
UVY1V101MED1TD	Capacitor Polarised	C14, C16, C18, C19, C23	CAPPRD250W50D655 H1250	UVY1V101MED1TD	5
0.1uF	MLCC Capacitor	C15	C 0603	Capacitor	1
22uF	MLCC Capacitor	C20, C24	C 0805	Capacitor	2
10uF	MLCC Capacitor	C21, C25	C 0805	Capacitor	2
10uF	MLCC Capacitor	C29, C32, C33, C34, C45, C47, C57, C59	C 0402	Capacitor	8
4 PIN		CON1, CON3, CON6, CON15	BM04B-SRSS-TB	4 PIN	4
1 Pin		CON2, CON4, CON7, CON8, CON9, CON10, CON11, CON12, CON13, CON14	SMD PAD	1 Pin	10
4 PIN		CON5, CON16, CON17, CON18, CON21, CON22	Goldpin 2.54 4P	4 PIN	6
5 PIN		CON19, CON20, CON23, CON24	Goldpin 2.54mm 5Pin	5 PIN	4
LED BLUE		D1, D2, D3	LED 0603 BLUE	LED BLUE	3
LES05D5.0CT1G	TVS Diode (Bi-directional)	D4, D5, D6, D7, D8, D9, D10	LES05D50CT1G	LES05D5.0CT1G	7
BMI323	Integrated Circuit	IC1	BMI323	BMI323	1
ESP32-S3-WROOM-1-N16R8	Integrated Circuit	IC2	ESP32S3WROOM1N16R8	ESP32-S3-WROOM-1-N16R8	1
DRV8251DDAR	Integrated Circuit	IC3, IC4, IC5, IC8	SOIC127P600X170-9W	DRV8251DDAR	4
TPS62933DRLR	Integrated Circuit	IC6	SOTFL50P160X60-8N	TPS62933DRLR	1
BAT760-7	Integrated Circuit	IC7, IC11, IC12	SOD2513X120N	BAT760-7	3
AMS1117-5	Integrated Circuit	IC9	SOT229P700X180-4N	AMS1117-3.3	1
AMS1117-3.3	Integrated Circuit	IC10	SOT229P700X180-4N	AMS1117-3.3	1
HX711	Integrated Circuit	IC13, IC14, IC15, IC16	SOIC127P600X160-16N	HX711	4
HDC1080DMBR	Integrated Circuit	IC17	SON100P300X300X80-7N-D	HDC1080DMBR	1
ADS1115IRUGR	Integrated Circuit	IC18	ADS1115IRUGR	ADS1115IRUGR	1
INA180A2IDBVR	Integrated Circuit	IC19, IC20, IC21, IC22	SOT95P280X145-5N	INA180A2IDBVR	4
09185066324	Connector	J1	09185066324	09185066324	1
USB4500-03-0-A	Connector	J2	USB4500030A	USB4500-03-0-A	1
0473461001	Connector	J3	0473461001	0473461001	1
4.7uH	General pourpouse inductor	L1	HPI0630	Inductor	1
AON6403	P-Mosfet 30V 67A Rds(on) 3.1mR	Q1	DFN 5x6	AON6403	1
S8550	Transistor BJT PNP	Q4, Q5, Q8, Q9	SOT95P240X110-3N	S8550	4
10k	General pourpouse resistor	R1, R2, R3, R5, R7, R8, R16, R17, R18, R21, R32, R33, R42	R 0402	Resistor	13
0	General pourpouse resistor	R4	R 0402	Resistor	1
31.3K	General pourpouse resistor	R6	R 0402	Resistor	1
0.05R	General pourpouse resistor	R9, R10, R11, R14, R43, R44, R45, R46	R 1206	Resistor	8
2k	General pourpouse resistor	R12	R 0402	Resistor	1
160	General pourpouse resistor	R13, R15	R 0402	Resistor	2
47k	General pourpouse resistor	R19	R 0402	Resistor	1
13k	General pourpouse resistor	R20	R 0402	Resistor	1
100R	General pourpouse resistor	R22, R23, R28, R29, R30, R31, R38, R39, R40, R41	R 0402	Resistor	10
20k	General pourpouse resistor	R24, R25, R34, R35	R 0402	Resistor	4
8.2k	General pourpouse resistor	R26, R27, R36, R37	R 0402	Resistor	4
PTS8105JK250SMTRLFS	Tactile Switch SPST-NO Top Actuated Surface Mount	S, S1	PTS8105JG250SMTRLFS	PTS8105JK250SMTRLFS	2