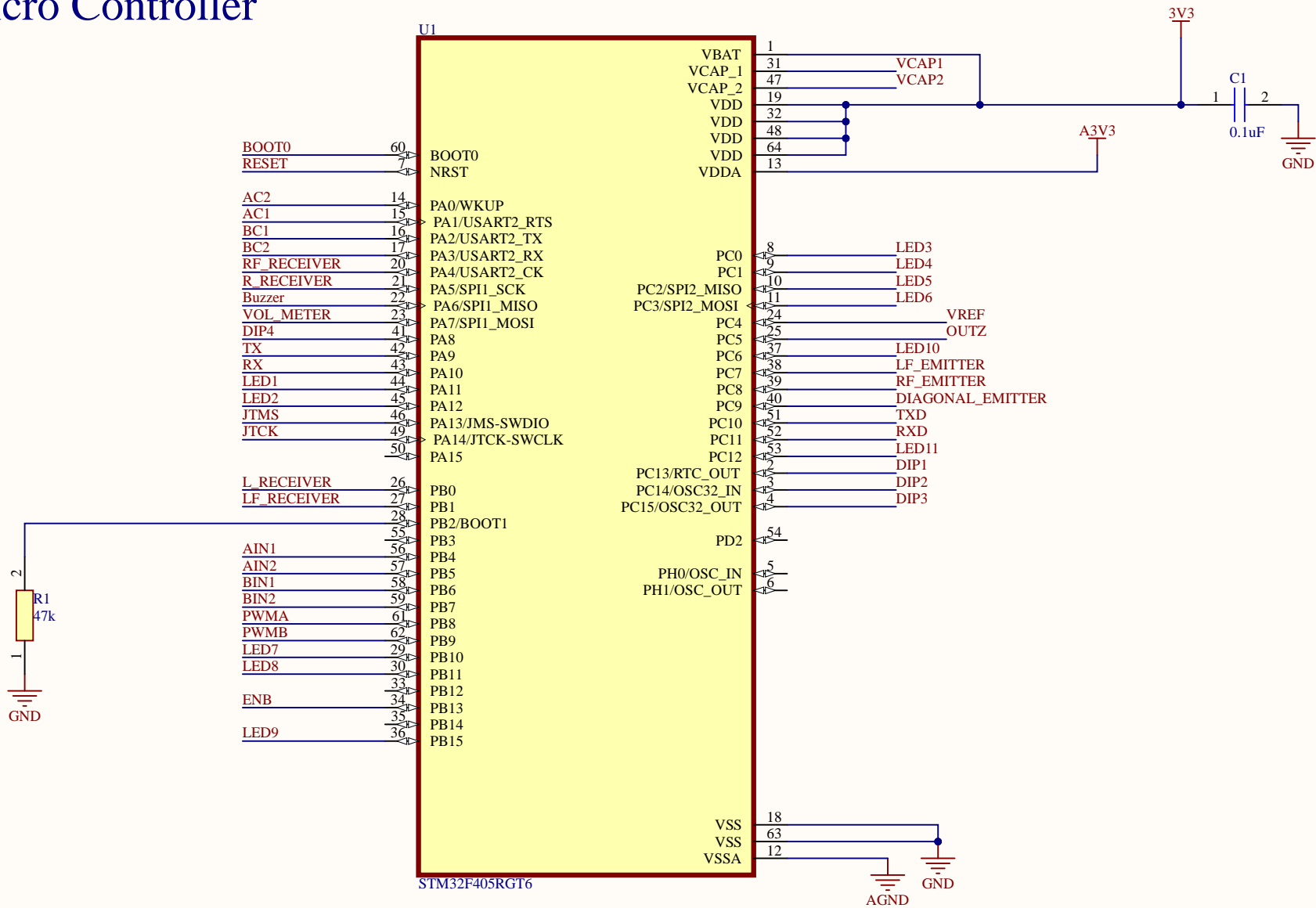
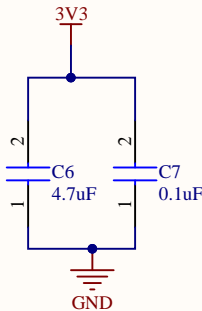
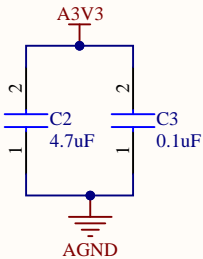
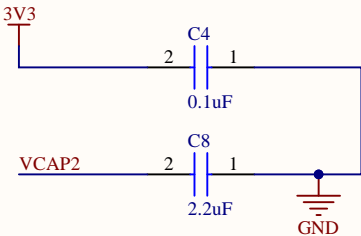
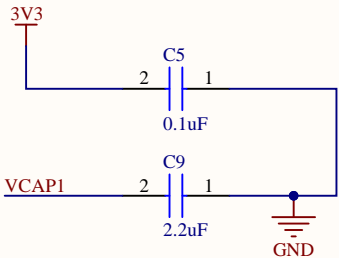


# Micro Controller

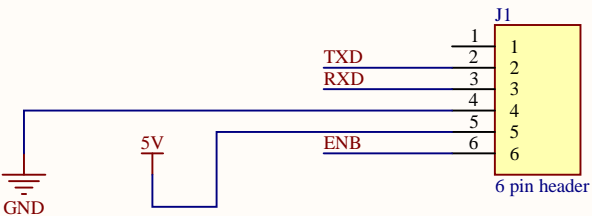


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Size	Number	Revision
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Date:	12/30/2024	Sheet of
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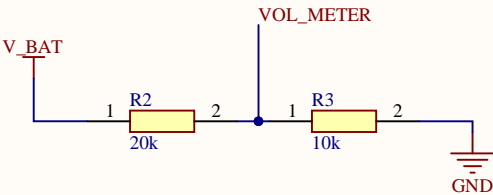
IC power



Bluetooth Module

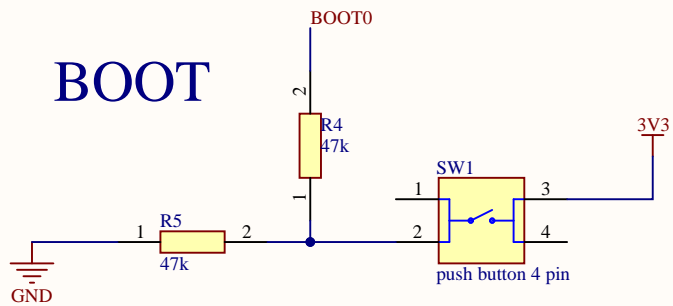


Measure Battery Voltage

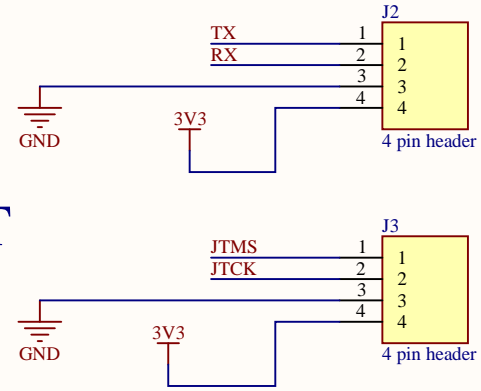


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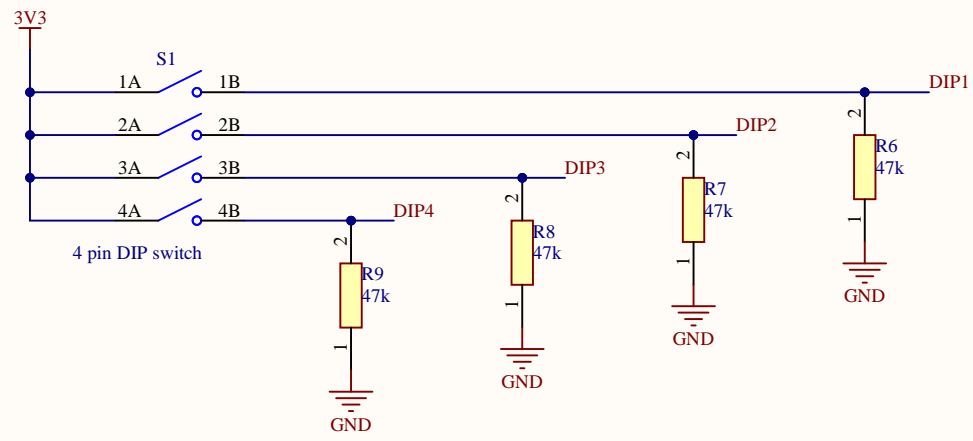
# BOOT



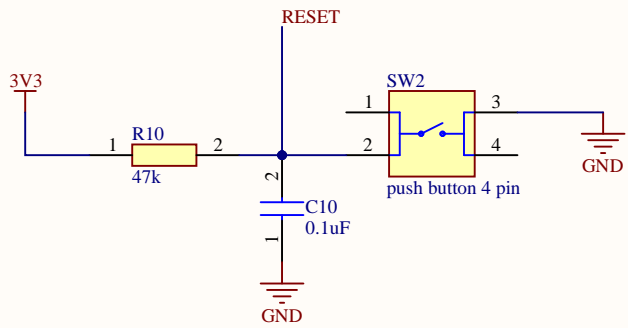
# USART



# DIP Switch

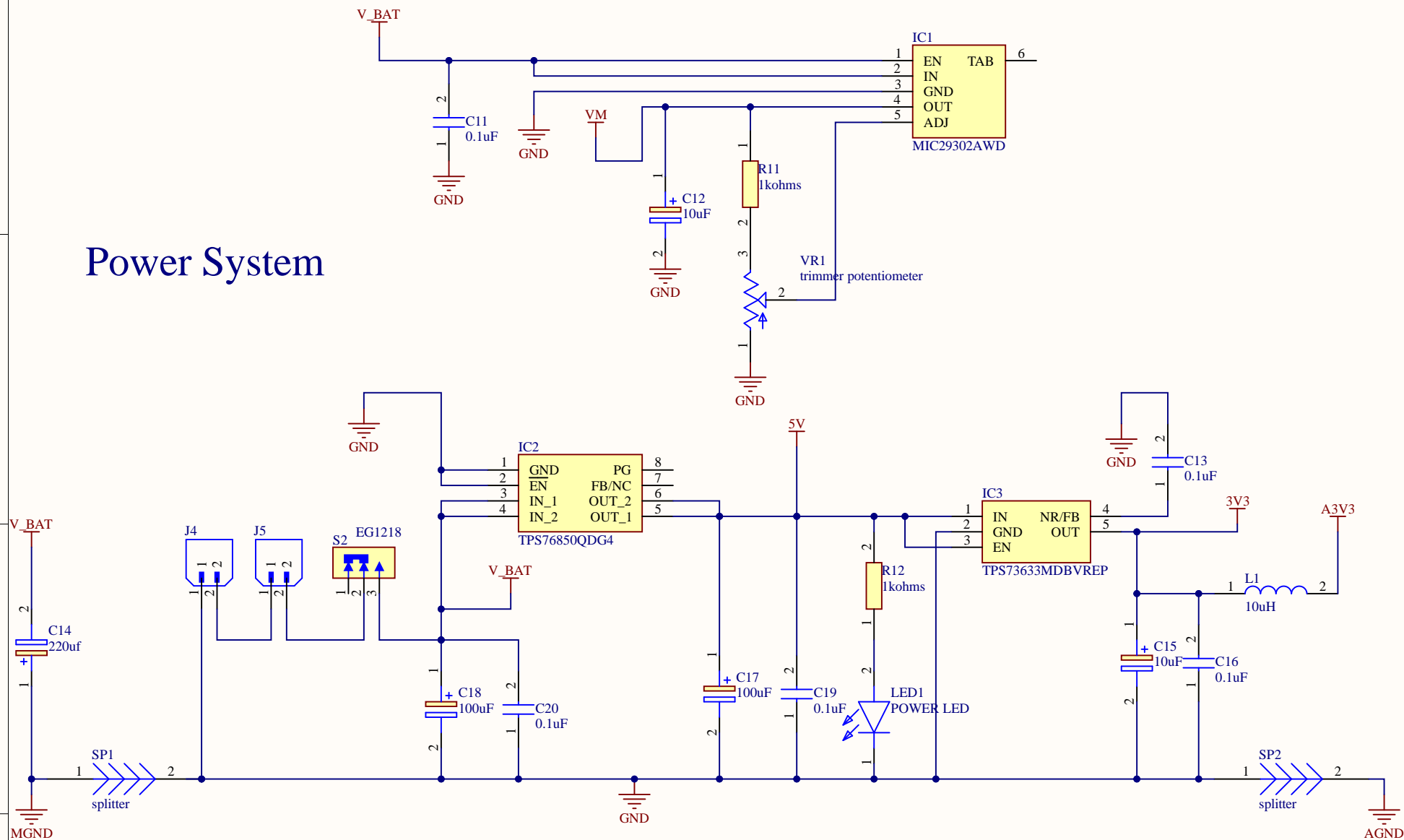


# RESET



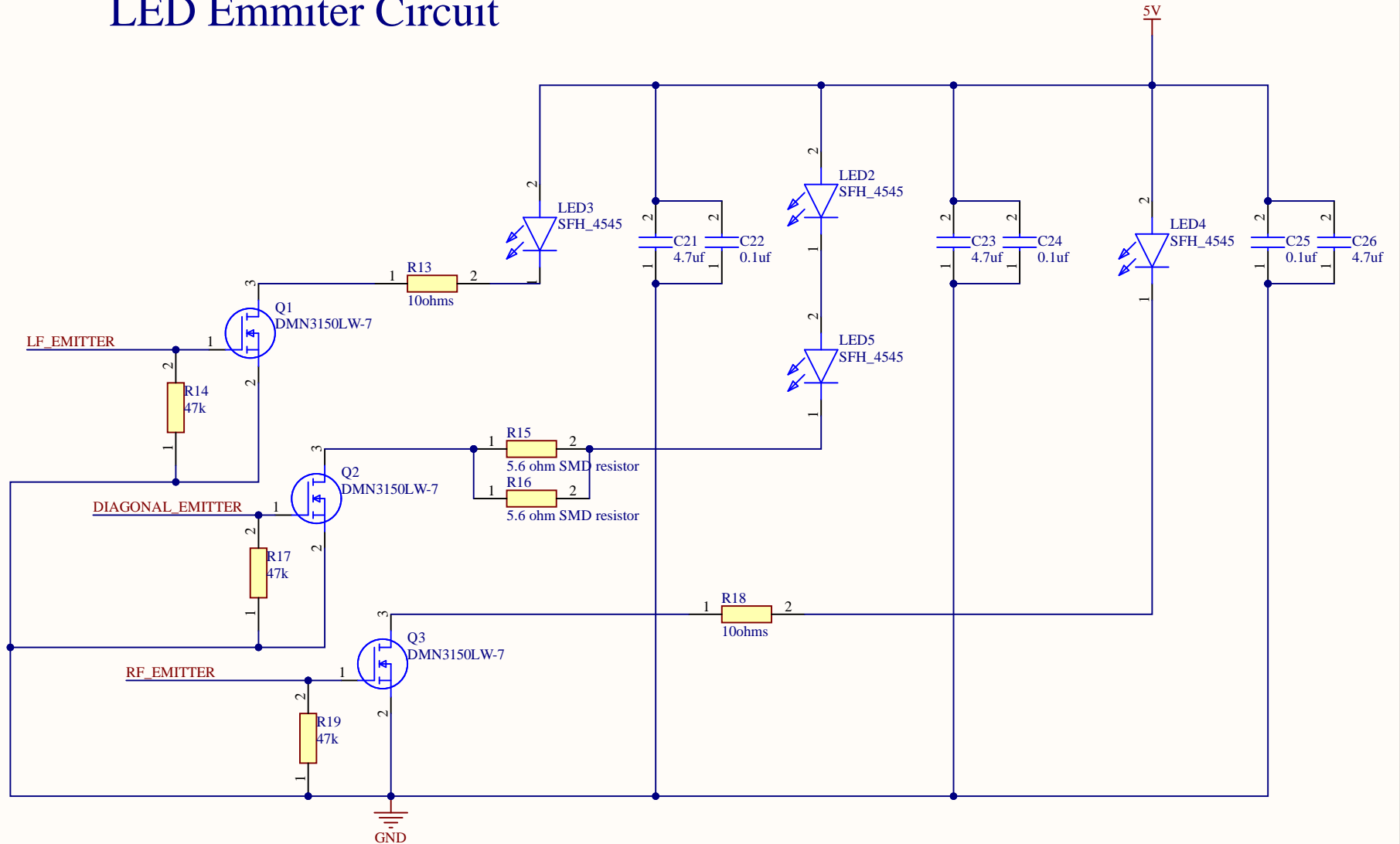
Title			
Size	Number		Revision
A			
Date:	12/30/2024		Sheet of
File:	C:\Users\...\Sheet7.SchDoc		Drawn By:

# Power System



Title		
Size A	Number	Revision
Date:	12/30/2024	Sheet of
File:	C:\Users\...Sheet4.SchDoc	Drawn By:

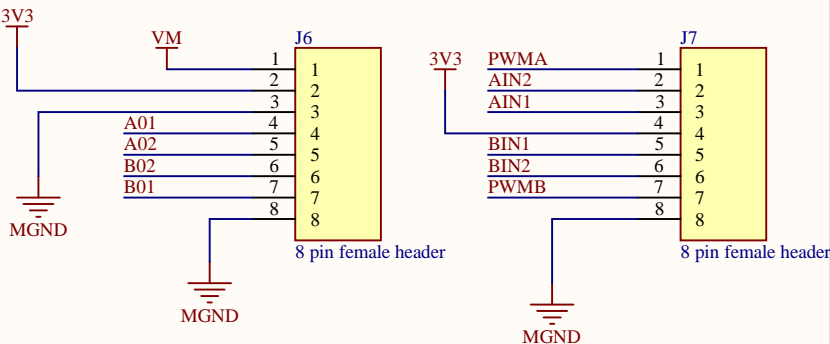
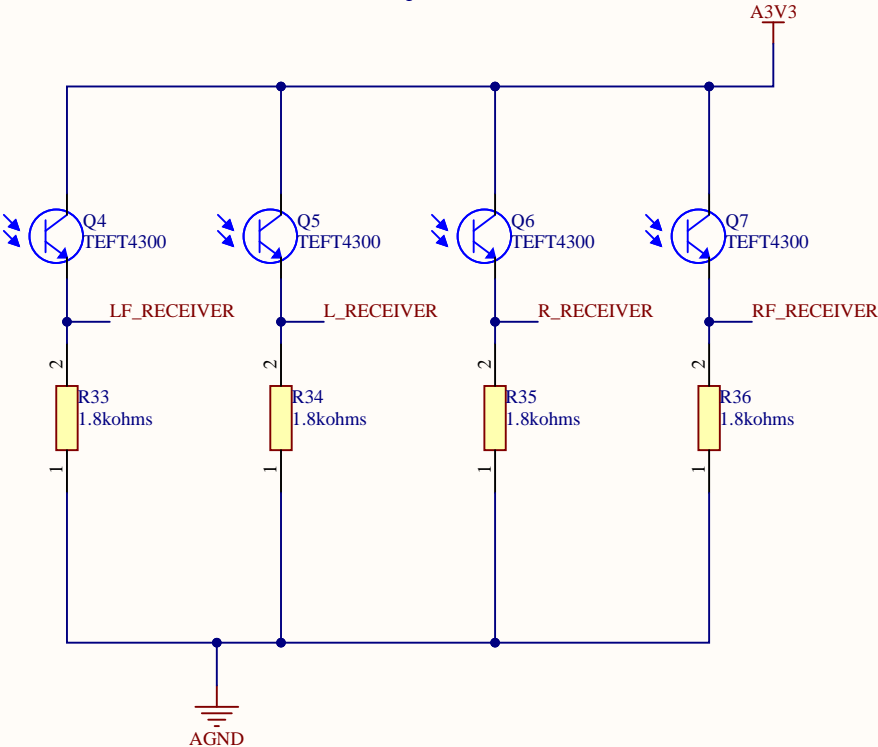
# LED Emmitter Circuit



Title			
Size	Number		Revision
A			
Date:	12/30/2024		Sheet of
File:	C:\Users\...\Sheet2.SchDoc		Drawn By:

Receiver System

Motor Control

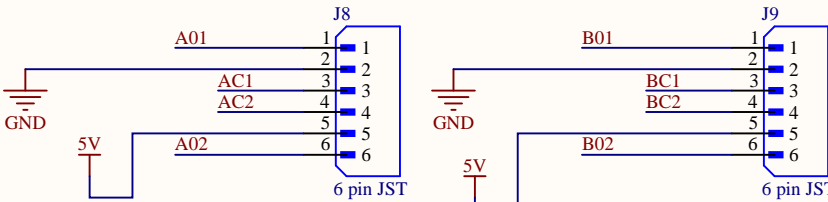
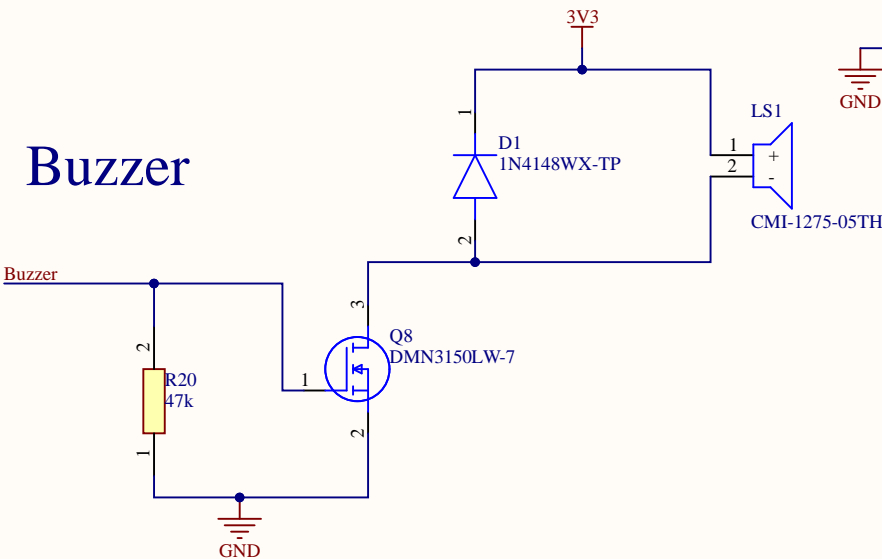


Encoders

Buzzer

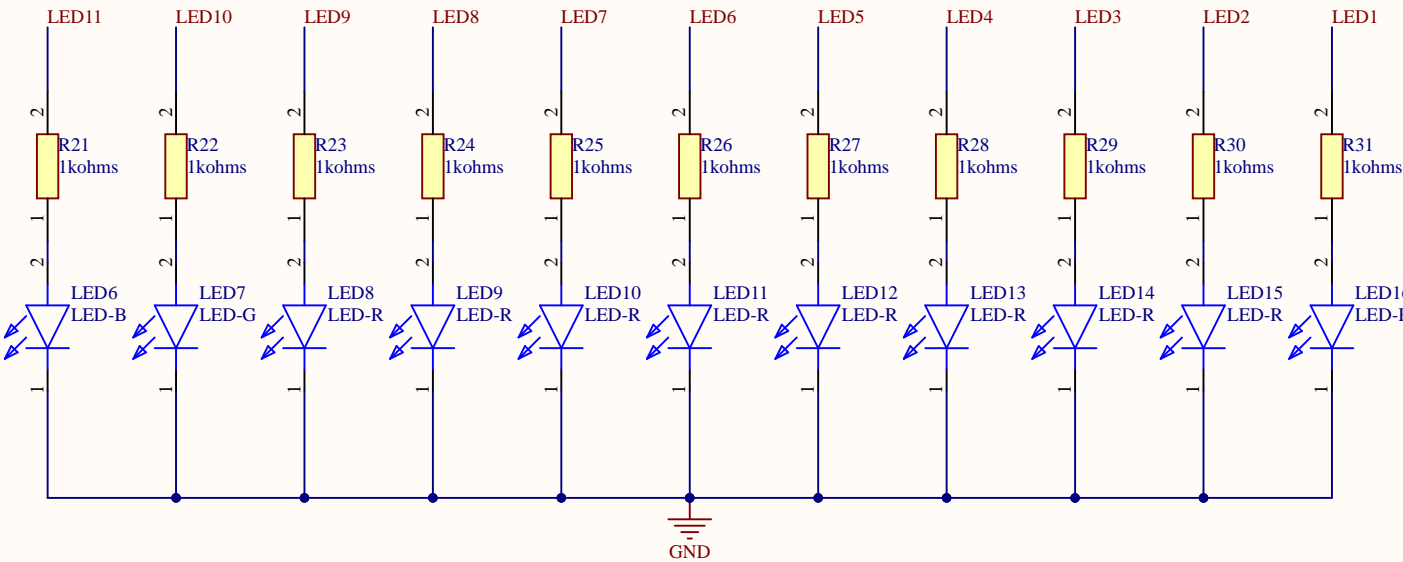
Right Encoder

Left Encoder

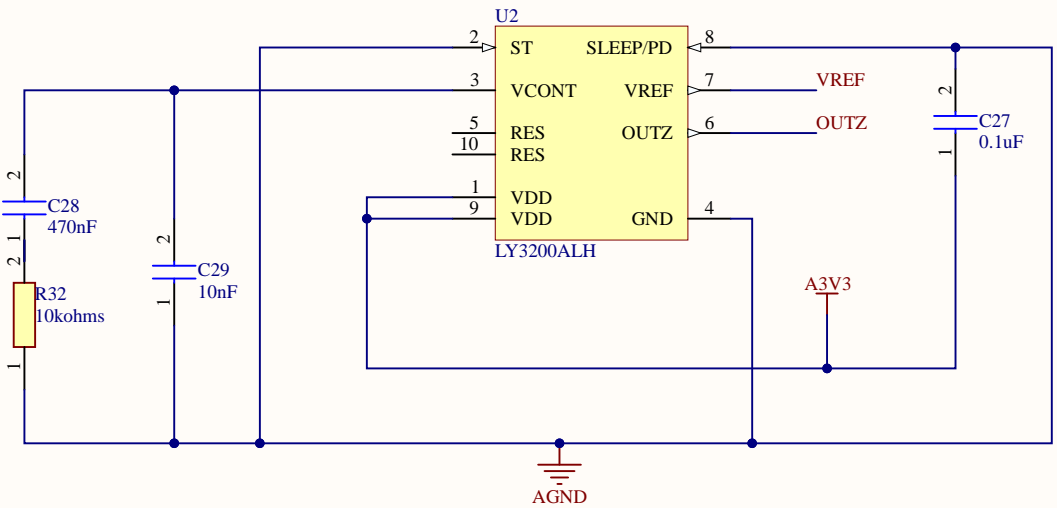


Title		
Size	Number	Revision
A		
Date:	12/30/2024	Sheet of
File:	C:\Users\...\Sheet3.SchDoc	Drawn By:

# Mode Indication System



# Gyroscope



Title		
Size	Number	Revision
A		
Date:	12/30/2024	Sheet of
File:	C:\Users\...\Sheet5.SchDoc	Drawn By:

Comment	Description	Designator	Footprint	Libref	Quantity
0.1uF	0.1uF SMD 25V ceramic	C1, C3, C4, C5, C7, C10, C11, C13, C16, C19, C20, C22, C24, C25, C27	CAPC1005X5N	0.1uF, M04S1105SB71048FN, A01	15
4.7uF	Capacitor	C2, C6	CAPC2012X145N	4.7uF 25v 10% SMD CAP	2
2.2uF	2.2uF ceramic SMD cap 10% 25V 2.01mm	C8, C9	CAPC2012X152N	2.2uF	2
10uF	10uF Tantalum SMD 5% 10VDC	C12, C15	CAPPM3216X180N	10uF	2
220uF	10% 10VDC tantalum solidCapacitor Polarised	C14	CAPPM7343X430N	220uF cap	1
100uF	100uF SMD 10% 10VDC cap	C17, C18	CAPPM3528X210N	100uF	2
4.7uF	4.7uF SMD ceramic	C21, C23, C26	CAPC1005X5N	CM05X5R475M16AH	3
470nF	470nF 20% 50V SMD 2.01mm	C28	CAPC2012X140N	470nF	1
10nF	10nF 1% 100VDC 2.01mm SMD cap	C29	CAPC2012X94N	10nF	1
1N4148WXX-TP	Diode	D1	SC02512X130N	1N4148WXX-TP	1
MIC29302AWD	Integrated Circuit	IC1	MIC29302AWD	MIC29302AWD	1
TPS76850DDG4	5 V 1A regulator LDO Voltage Regulators Micropower LDO Reg Texas Instruments	IC2	SOIC127P600X175-8N	TPS76850DDG4	1
TPS73633MDBVREP	3.3V regulator LDO Voltage Regulators M0 Enh Cap-Free WMS 400-mA LDO Reg	IC3	SOT95P280X145-5N	TPS73633MDBVREP	1
6 pin header	Connector	J1	RHDR6W76P0K254_1 X6_1524X254X02SP	6 pin header	1
4 pin header	Connector	J2, J3	RHDR6W66P0K254_1 X4_1016X35X0389P	4 pin header	2
2 pin JST	Connector Header Through Hole 2 position 0.098 (2.50mm)	J4, J5	JST_B3B-XH-A_01P(X30)	2 pin JST	2
8 pin female header	Connector	J6, J7	RHDR6W76P0K254_1 X8_2032X35X0646P	8 pin female header	2
6 pin JST	Connector Header Through Hole 6 position 0.098 (2.50mm)	J8, J9	JST_BAB-XH-A01P(X30)	6 pin JST	2
10uH	10uH 10% 25mA inductor	L1	INDC3216X130N	10uH	1
POWER LED	RED - LED 5mA	LED1	LEDC1608X45N	LED	1
SFH_4545	LED	LED2, LED3, LED4, LED5	SFH4545	SFH_4545	4
LED-B	Single Color LEDs Blue 468nm 40mcd 20mA	LED6	LEDC1608X55N	LED-B	1
LED-G	Single Color LEDs Green, 570nm 12mcd, 20mA	LED7	LGL29KG22124	LED-G	1
LED-R	RED - LED 5mA	LED8, LED9, LED10, LED11, LED12, LED13, LED14, LED15, LED16	LEDC1608X45N	LED-R	9
CMI-1275-05TH	Cruspeaker or Buzzer	LS1	PB1222P05G	CMI-1275-05TH	2
DMN3150LW-7	MOSFET (N-Channel)	Q1, Q2	DMN3150LW	DMN3150LW-7	1
DMN3150LW-7	MOSFET (N-Channel)	Q3, Q8	SOT69P210X110-3N	DMN3150LW-7	2
TEFT4300	Phototransistor 925nm Top View Radial, 3mm Dia, T_1	Q4, Q5, Q6, Q7	TEFT4300	TEFT4300	4
47k	Thin Film Resistors 47K OHM, 1% 1SPRM 1/16W	R1, R4, R5, R6, R7, R8, R9, R10	ERA2AED122X	47k	8
20k	Thin Film Resistors SMD 0805 20kohms 25ppm 0.5% AEC-Q200	R2	ERA6AEB101V	20k	1
10k	Thin Film Resistors SMD MCT 0603-25 0.1% AT P5, 10K5	R3	RESC1608X55N	10k	1
1kohms	1kohms SMD thin film resistor 50V 1/16W	R11, R12, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31	RESC1005X40N	1kohms	13
10ohms	10 ohm 1% thick SMD SW	R13, R18	RESC6432X120N	352210RFT	2
47k	47kohm 1% 50v SMD thin resistor	R14, R17, R19, R20	RESC1005X40N	BN73H1ET1P4702P50	4
5.6 ohm SMD resistor	10kohms 0.1% 200mW 100V thin SMD	R15, R16	5.6ohm SMD	5.6 ohm SMD resistor	2
10kohms	thin SMD resistor 1.55mm length 50V 0.1%	R32	RESC2013X51N	10kohms	1
1.8kohms	4 Position, Through Hole, 2.54 mm Pitch, Raised Slide Actuator, Convex Bottom, Short Pin, DIP Switch	R33, R34, R35, R36	RESC1608X55N	CPH06081K8E1	4
4 pin DIP switch	Slide Switch, EG Series, SPDT, Non-Shorting ON-ON, 200mA DC, 30VDC, PC Pin   E-Switch EG1218	S1	SW_DS01C-254-S-04BE	4 pin DIP switch	1
EG1218	Switch Push Button OFF (ON) SPST Round Button 0.05A 24VDC Momentary Contact PC Pins Thru-Hole	S2	SW_EG1218	EG1218	1
push button 4 pin	High-performance foundation line, ARM Cortex-M4 core with DSP and FPU, 1 Mbyte Flash, 16kByte CPU, ART Accelerator	SW1, SW2	push button 4 pin	push button 4 pin	2
STM32F405RG16	MEMS motion sensor: high performance ± 2000 dps analog yaw-rate gyroscope, -40 to +85°C, LGA-10 (3x5x1), Tray	U1	STM32F405RG16	STM32F405RG16	1
LY3200ALH	10 kOhms 0.5W, 1/2W PC Pins Through Hole Trimmer Potentiometer Cermet 1.0 Turn Top Adjustment	U2	LGAT10-3KX1_L	LY3200ALH	1
trimmer potentiometer		VR1	TRIM_3362P-1-253LF	trimmer potentiometer	1