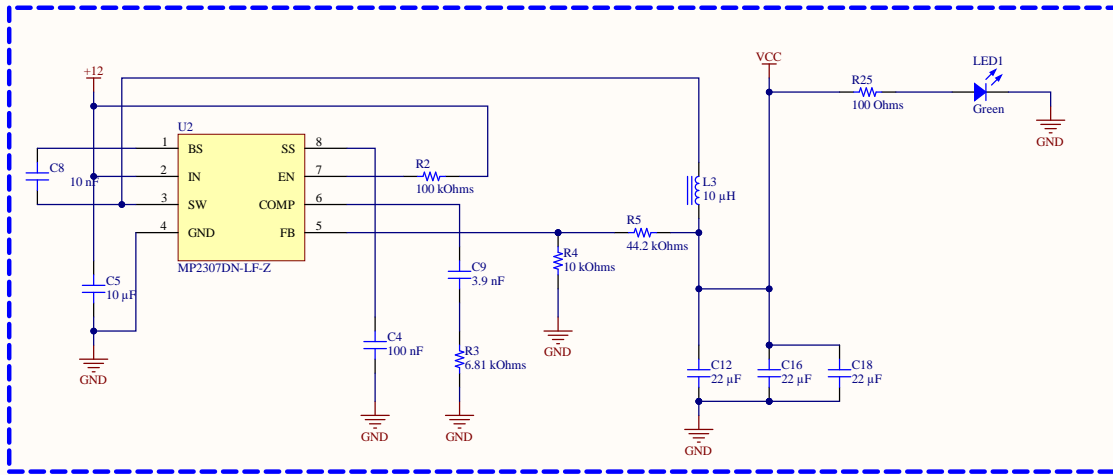
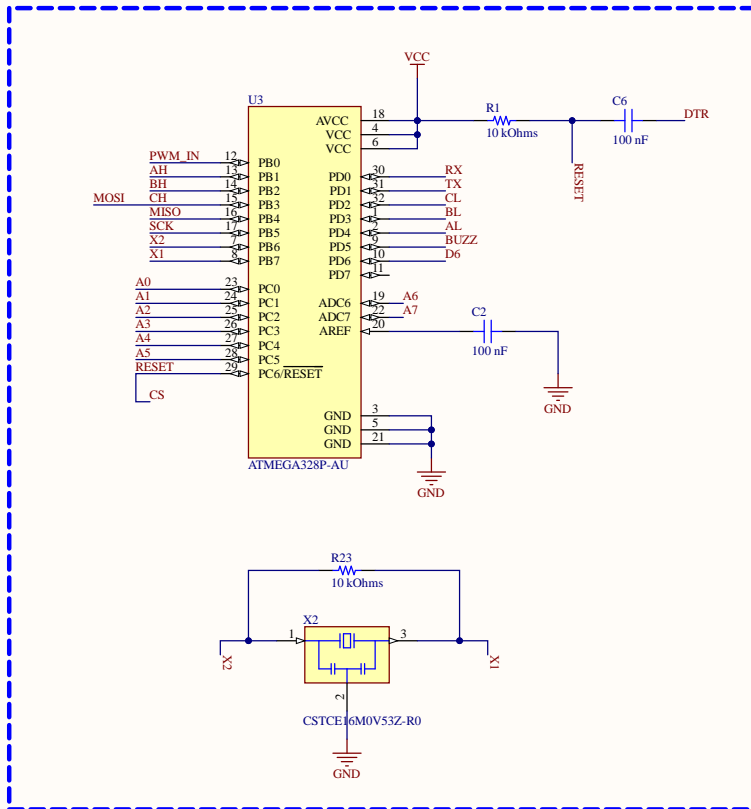


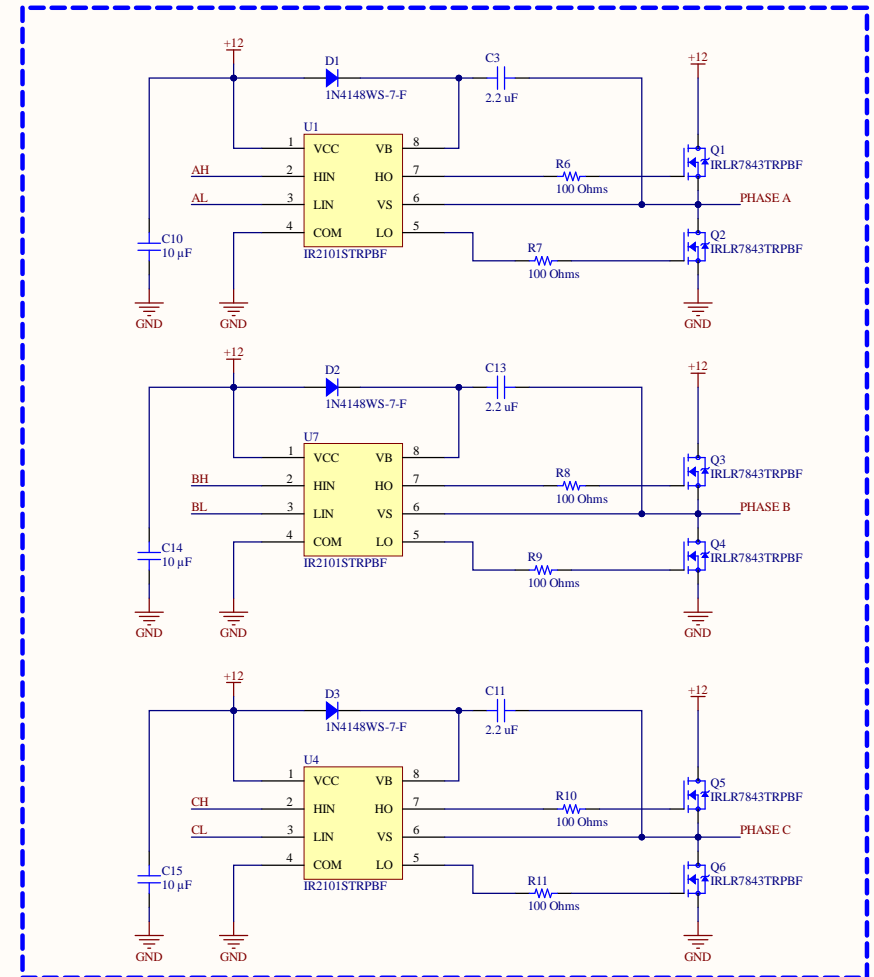
POWER BLOCK



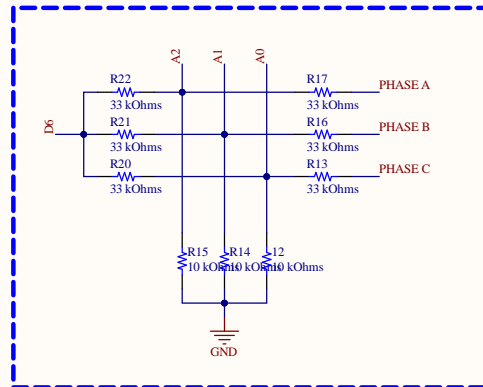
MCU



3-PHASE BRIDGE



BEMF



Title ESC V3		
Size A3	Number	Revision
Date: 2.06.2026	Sheet of C:\Users\...ESC V3.SchDoc	Drawn By: Alperen Ergül

Comment	Description	Designator	Footprint	LibRef	Quantity
10 kOhms	RES10K OHM 0.1% 1/16W 0603	12, R1, R4, R14, R15, R23	RES0603_1608	RNCS0603BKE10K0	6
100 nF	CAP CER 3.9PF 250V COG/NP0 0603	C2, C4, C6	CAP 0603_1608	CBR06C399BAGAC	3
2.2 uF	CAP CER 3.9PF 250V COG/NP0 0603	C3, C11, C13	CAP 0603_1608	CBR06C399BAGAC	3
10 µF	CAP CER 10UF 16V X5R 1206	C5, C10, C14, C15	CAP 1206_3216 - 0.8MM	EMK316BJ106MD-T	4
10 nF	CAP CER 3.9PF 250V COG/NP0 0603	C8	CAP 0603_1608	CBR06C399BAGAC	1
3.9 nF	CAP CER 3.9PF 250V COG/NP0 0603	C9	CAP 0603_1608	CBR06C399BAGAC	1
22 µF	CAP CER 22UF 16V X5R 1206	C12, C16, C18	CAP 1206_3216 - 0.8MM	CL31A226MOCLNNC	3
1N4148WS-7-F	DIODE GEN PURP 75V 150MA SOD323	D1, D2, D3	SOD323	1N4148WS-7-F	3
10 µH	FIXED IND 10UH 2.75A 128MOHM SMD	L3	BOURNS SRP5030T	SRP5030T-100M	1
Green	LED GREEN CLEAR CHIP 0603 SMD	LED1	LED 0603_1608 GREEN	LSM0603453V	1
IRLR7843TRPBF	RoHS Compliant Industry-leading quality Low RDS(ON) at 4.5V VGS Fully Characterized Avalanche Voltage and Current Ultra-Low Gate Impedance Logic Level	Q1, Q2, Q3, Q4, Q5, Q6	TO229P990X239-3_4N	IRLR7843TRPBF	6
100 kOhms	RES100K OHM 0.1% 1/16W 0603	R2	RES0603_1608	RNCS0603BKE100K	1
6.81 kOhms	RQ 0603 6K81 0.1% 10PPM 1K RL	R3	RES0603_1608	RQ73C1J6K81BTDF	1
44.2 kOhms	RES SMD 44.2K OHM 0.1% 1/5W 0603	R5	RES0603_1608	ERJ-PB3B4422V	1
100 Ohms	RES100 OHM 0.1% 1/16W 0603	R6, R7, R8, R9, R10, R11, R25	RES0603_1608	RNCS0603BKE100R	7
33 kOhms	RES SMD 33K OHM 0.1% 1/16W 0603	R13, R16, R17, R20, R21, R22	RES0603_1608	CPF0603B33KE1	6
IR2101STRPBF		U1, U4, U7	IR2101STRPBF	IR2101STRPBF	3
MP2307DN-LF-Z		U2	MP2307DN-LF-Z	MP2307DN-LF-Z	1
ATMEGA328P-AU	AVR AVR@ATmega Microcontroller IC 8-Bit 20MHz 32KB (16Kx16) FLASH 32-TQFP (7x7)	U3	QFP80P900X900X120-32N	ATMEGA328P-AU	1
CSTCE16M0V53Z-R0	20MHz Ceramic Resonator Built in Capacitor 15pF +/- 0.2% -40C- 125C Surface Mount	X2	OSC_CSTCE16M0V53Z-R0	CSTCE16M0V53Z-R0	1