

A

A

B

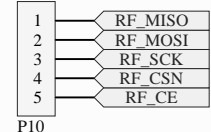
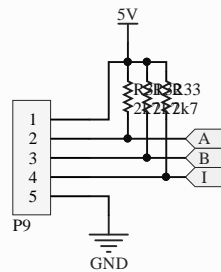
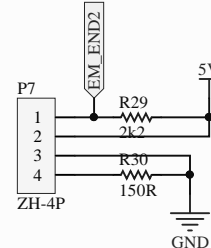
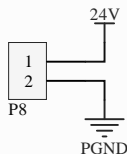
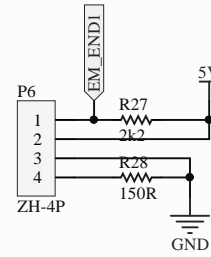
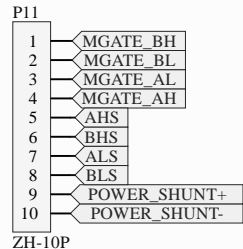
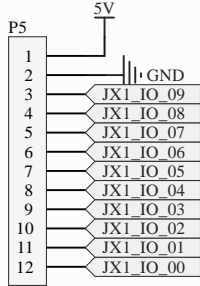
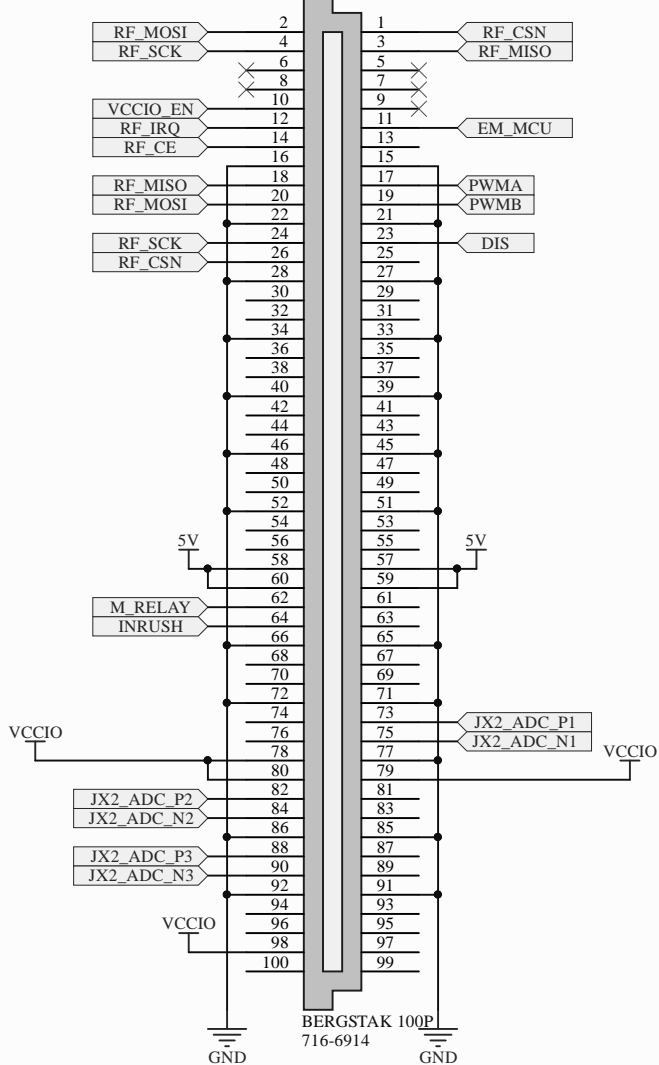
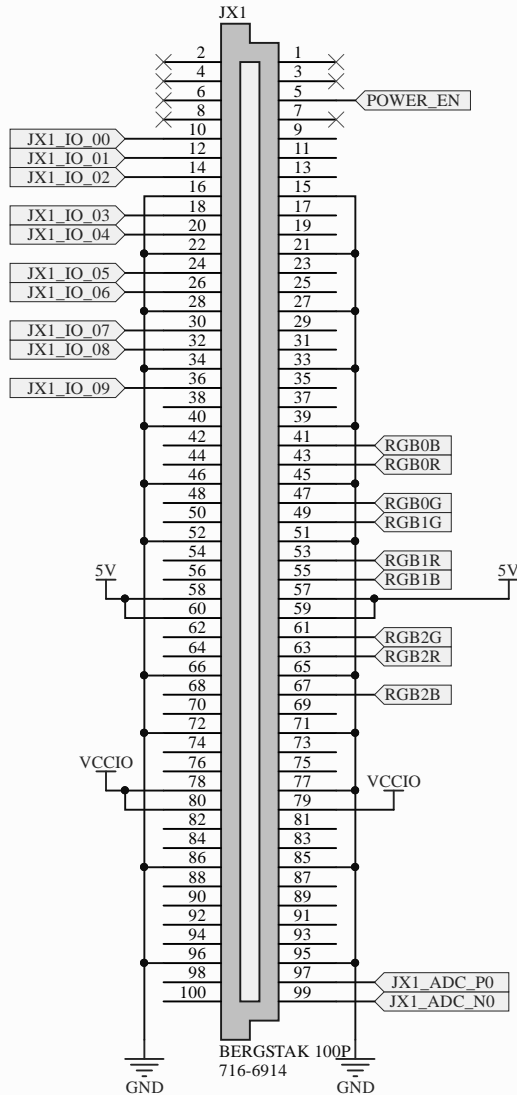
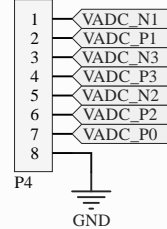
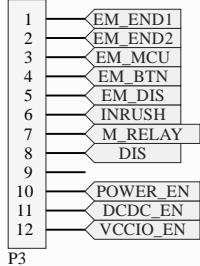
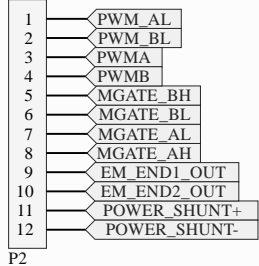
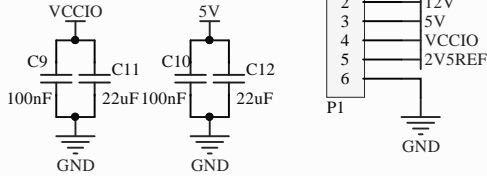
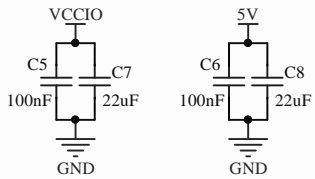
B

C

C

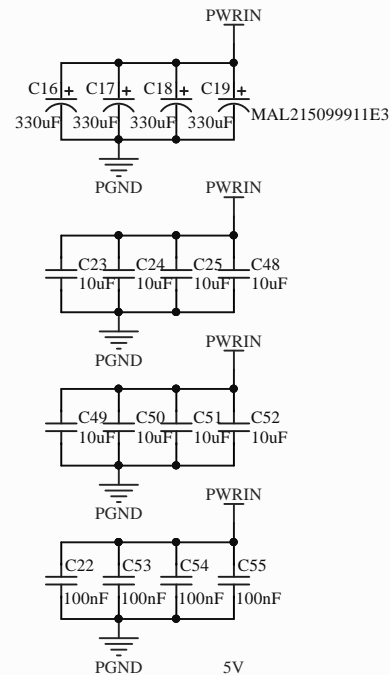
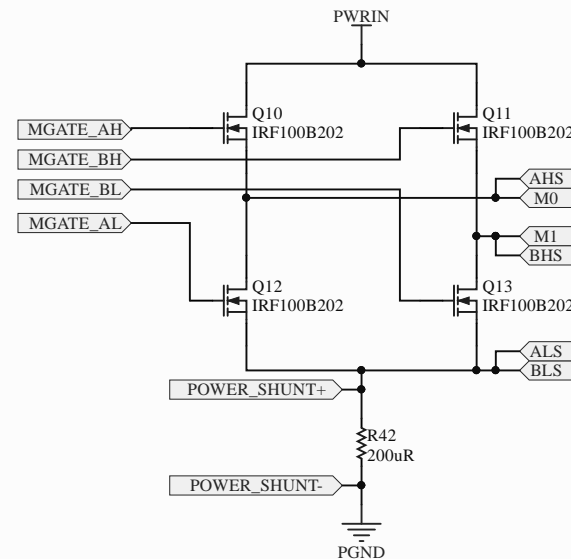
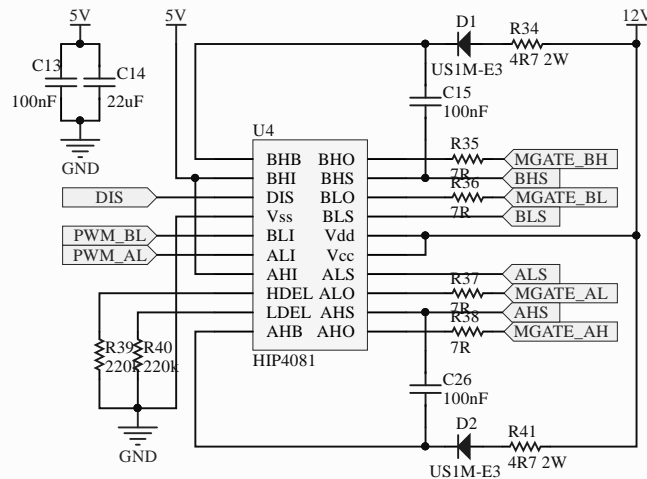
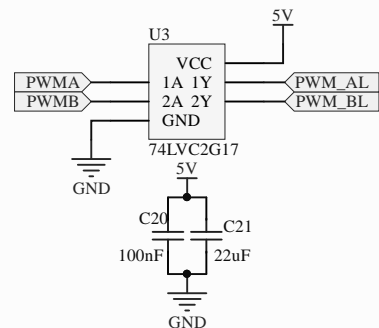
D

D

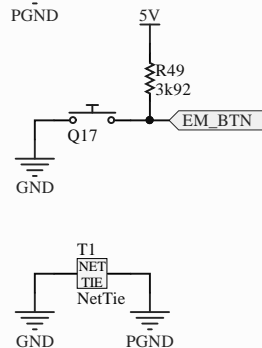
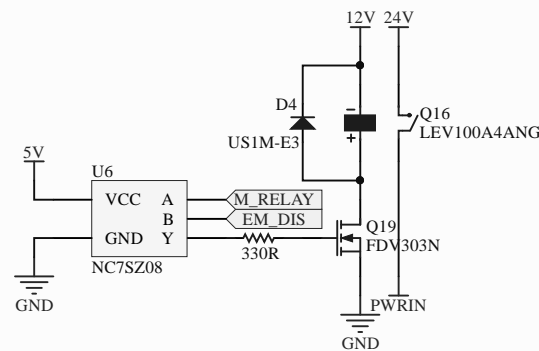
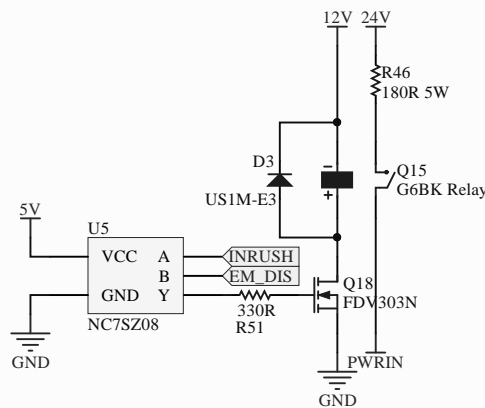
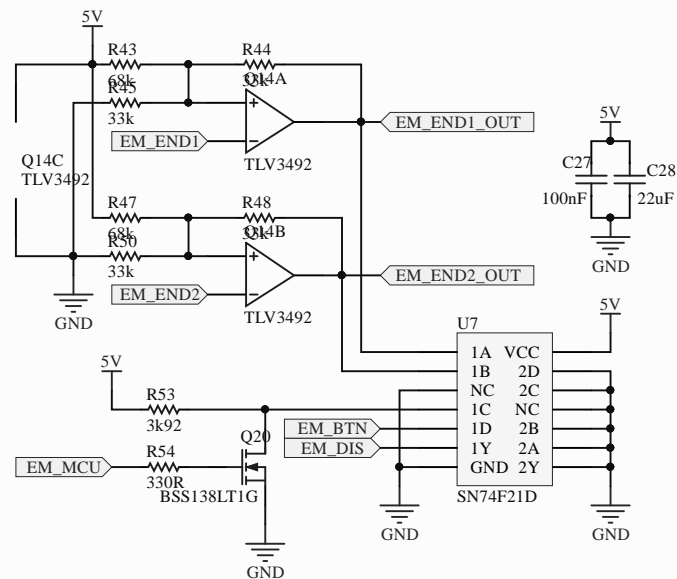


Title		
Connectors		
Size	Number	Revision
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File:	C:\Users\...\connectors.SchDoc	Drawn By:

A



B

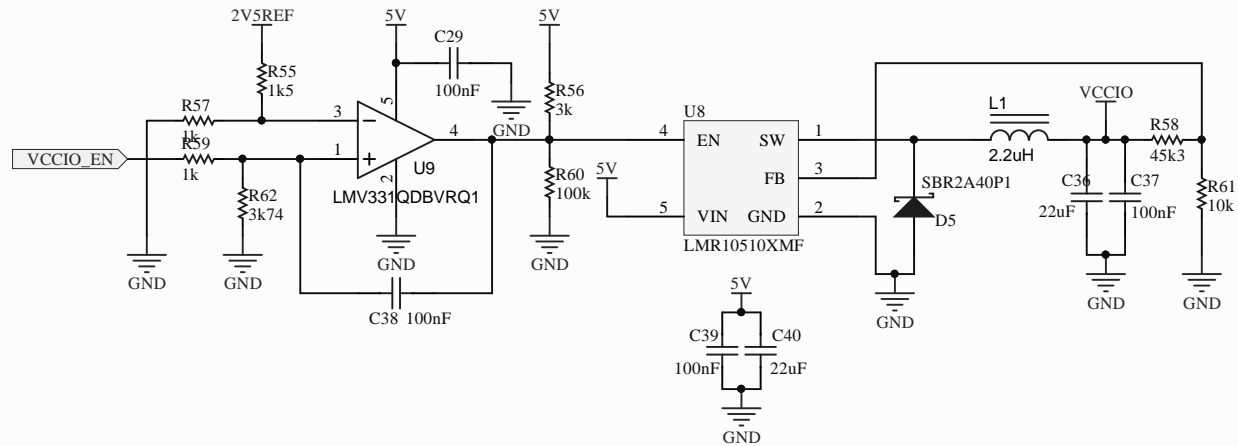
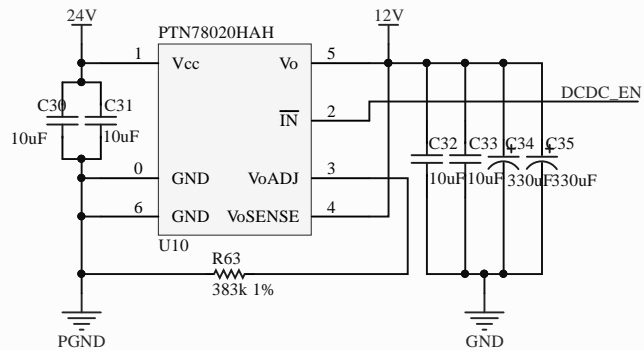


C

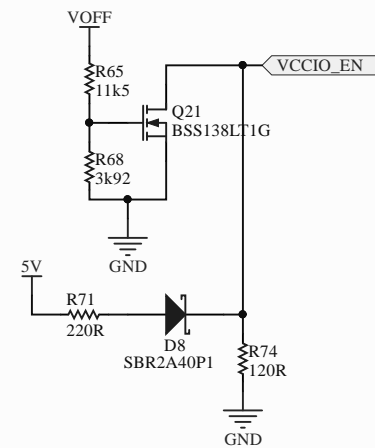
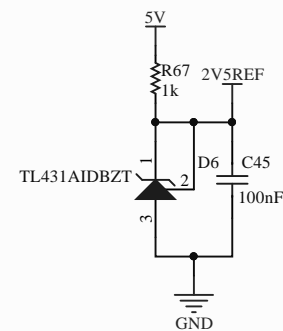
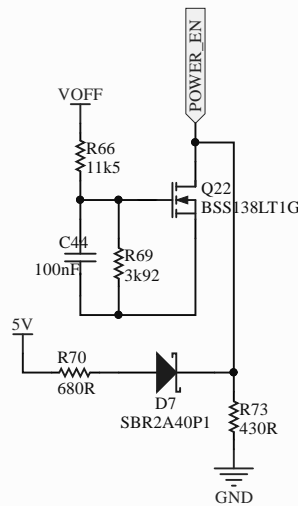
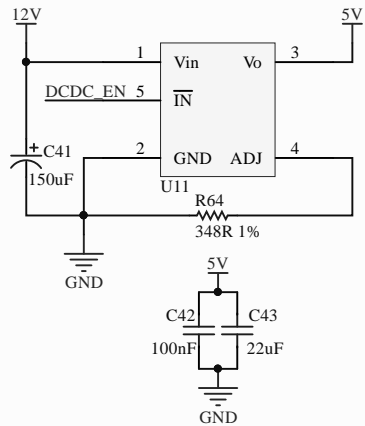
D

Title		
Motor Driver		
Size	Number	Revision
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File:	C:\Users\...\motor_driver.SchDoc	Drawn By:

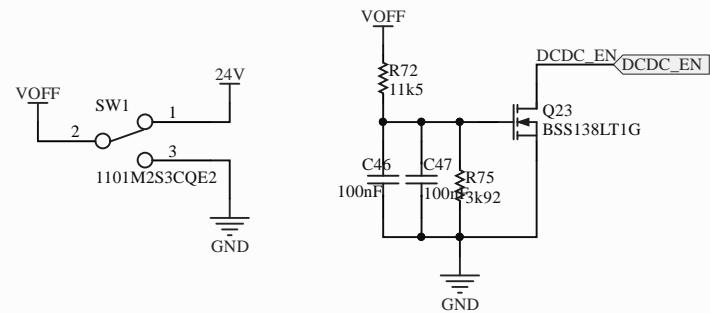
A



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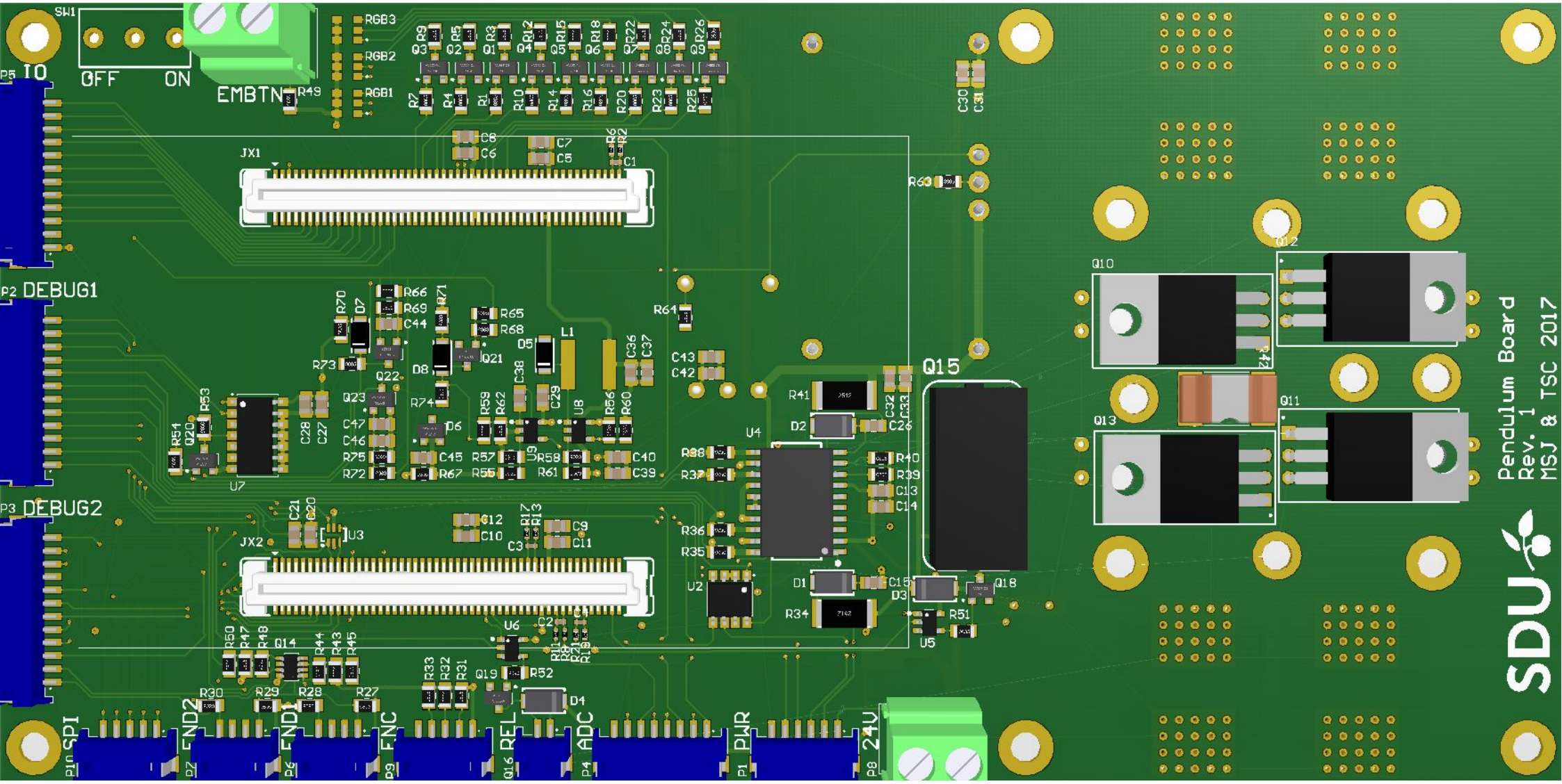


C



D

Title		
Power Delivery		
Size	Number	Revision
A4		4
Date:	03/10/2017	Sheet 3 of 4
File:	C:\Users\...\power_delivery.SchDoc	Drawn By:



Pendulum Board
Rev. 1
MSJ & TSC 2017

Comment	Description	Designator	Footprint	LibRef	Quantity	Value
Capacitor	Capacitor	C1, C2, C3, C4	CAP-0402	Capacitor	4	900pF
		C5, C6, C9, C10, C13, C15, C20, C22, C26, C27, C29, C37, C38, C39, C42, C44, C45, C46, C47, C53, C54, C55	CAP-0805	Capacitor	22	100nF
Capacitor	Capacitor	C7, C8, C11, C12, C14, C21, C28, C36, C40, C43	CAP-0805	Capacitor	10	22uF
MAL21509991E3		C16, C17, C18, C19	CAP-1621	Electrolytic Capacitor	4	330uF
Capacitor	Capacitor	C23, C24, C25, C30, C31, C32, C33, C48, C49, C50, C51, C52	CAP-0805	Capacitor	12	10uF
		C34, C35	CAP-H13	Electrolytic Capacitor	2	330uF
20SPV150M		C41	CAP-F12	Electrolytic Capacitor	1	150uF
US1M-E3		D1, D2, D3, D4	DO-214AC	Diode	4	
SBR2A40P1	Schottky Rectifier	D5, D7, D8	POWERDI-123	SBR2A40P1	3	
TL431AIDBZT	Variable voltage reference	D6	SOT-23B	TL431AIDBZT	1	
BERGSTAK 100P	100p connector, BERGSTAK	JX1, JX2	FCI_BERGSTAK_100P	BERGSTAK 100P	2	
2.2uH	SRN5020-2R2Y	L1	SRN5020-2R2Y_FP	SRN5020-2R2Y	1	2.2uH
ZH-6P		P1	ZH-6P	ZH-6P	1	
ZH-12P		P2, P3, P5	ZH-12P	ZH-12P	3	
ZH-8P		P4	ZH-8P	ZH-8P	1	
ZH-4P		P6, P7	ZH-4P	ZH-4P	2	
2P Terminal		P8	2P-TERM	2P Terminal	1	
ZH-5P		P9, P10	ZH-5P	ZH-5P	2	
ZH-10P		P11	ZH-10P-T	ZH-10P	1	
BSS138LT1G	N-Channel MOSFET	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q20, Q21, Q22, Q23	SOT-23B	BSS138LT1G	13	
IRF100B202		Q10, Q11, Q12, Q13	TO-220AB	IRF100B202	4	
TLV3492		Q14	SOT23-8	TLV3492	1	
G4BK Relay		Q15	G4BK	G4BK Relay	1	
LEV100A4ANG		Q16	ZH-2P	LEV100A4ANG	1	
Emergency Button		Q17	2P-TERM	Emergency Button	1	
FDV303N		Q18, Q19	SOT-23B	FDV303N	2	
Resistor	Resistor	R1, R4, R7, R10, R14, R16, R20, R23, R25, R51, R52, R54	RES-0805	Resistor	12	330R
Resistor	Resistor	R2, R6, R8, R11, R13, R17, R19, R21	RES-0402	Resistor	8	100R
Resistor	Resistor	R3, R9, R12, R18, R22, R26	RES-0805	Resistor	6	85R
Resistor	Resistor	R5, R15, R24	RES-0805	Resistor	3	145R
Resistor	Resistor	R27, R29	RES-0805	Resistor	2	2k2
Resistor	Resistor	R28, R30	RES-0805	Resistor	2	150R
Resistor	Resistor	R31, R32, R33	RES-0805	Resistor	3	2k7
Resistor	Resistor	R34, R41	RES-2512	Resistor	2	4R7 2W
Resistor	Resistor	R35, R36, R37, R38	RES-0805	Resistor	4	7R
Resistor	Resistor	R39, R40	RES-0805	Resistor	2	220k
Resistor	Resistor	R42	RES-3920	Resistor	1	200uR
Resistor	Resistor	R43, R47	RES-0805	Resistor	2	68k
Resistor	Resistor	R44, R45, R48, R50	RES-0805	Resistor	4	33k
Resistor	Resistor	R46	RES-RWS5	Resistor	1	180R 5W
Resistor	Resistor	R49, R53, R68, R69, R75	RES-0805	Resistor	5	3k92
Resistor	Resistor	R55	RES-0805	Resistor	1	1k5
Resistor	Resistor	R56	RES-0805	Resistor	1	3k
Resistor	Resistor	R57, R59, R67	RES-0805	Resistor	3	1k
Resistor	Resistor	R58	RES-0805	Resistor	1	45k3
Resistor	Resistor	R60	RES-0805	Resistor	1	100k
Resistor	Resistor	R61	RES-0805	Resistor	1	10k
Resistor	Resistor	R62	RES-0805	Resistor	1	3k74
Resistor	Resistor	R63	RES-0805	Resistor	1	383k 1%
Resistor	Resistor	R64	RES-0805	Resistor	1	348R 1%
Resistor	Resistor	R65, R66, R72	RES-0805	Resistor	3	11k5
Resistor	Resistor	R70	RES-0805	Resistor	1	680R
Resistor	Resistor	R71	RES-0805	Resistor	1	220R
Resistor	Resistor	R73	RES-0805	Resistor	1	430R
Resistor	Resistor	R74	RES-0805	Resistor	1	120R
RGB LED		RGB1, RGB2, RGB3	RGB_LED	LTR8 R8SF	3	
1101M253CQE2		SW1	1101M253CQE2_FP	1101M253CQE2	1	
NRF 24L01 Module		U1	NRF 24L01 Module	NRF 24L01 Module	1	
INA286		U2	SOIC-8	INA286	1	
74LVC2G17	74LVC2G17 Dual non-inverting Schmitt-trigger with 5v tolerant input	U3	SOT-363	74LVC2G17	1	
HIP4081		U4	SOIC-20 WB	HIP4081	1	
NC75Z08		U5, U6	SOT23-5	NC75Z08	2	
SN74F21D	Dual 4-Input AND Gate	U7	SOIC-14	SN74F21D	1	
LMR10510XMF	IC SMD AMP+ COMPAR Combo SOIC-8	U8	SOT23-5	LMR10510XMF	1	
LMV331QDBVRQ1		U9	SOT23-5	LMV331QDBVRQ1	1	
PTN78020HAH		U10	PTN78020	PTN78020HAH	1	
PTH08080WAH		U11	PTH08080W_FP	PTH08080WAH	1	