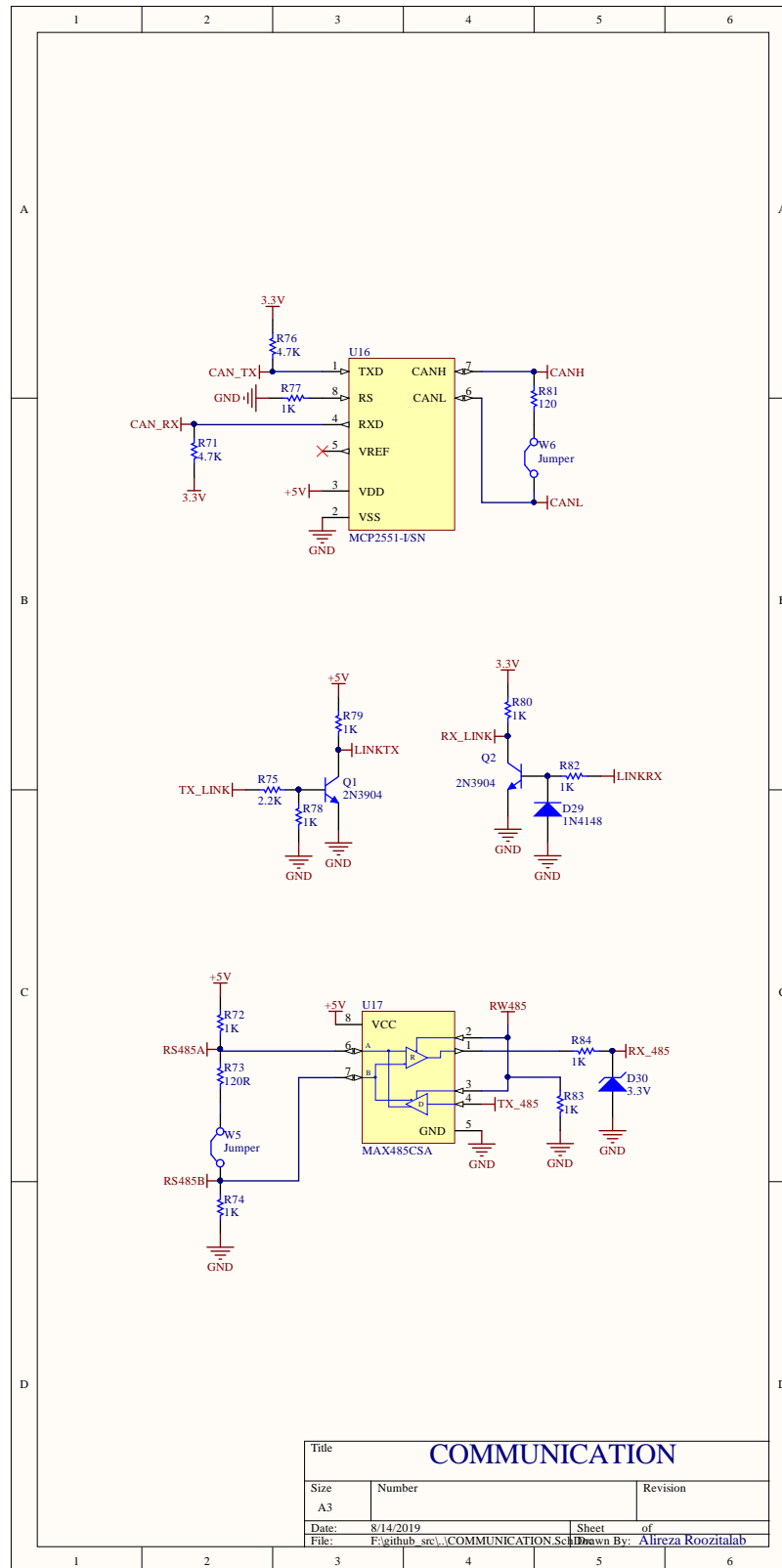
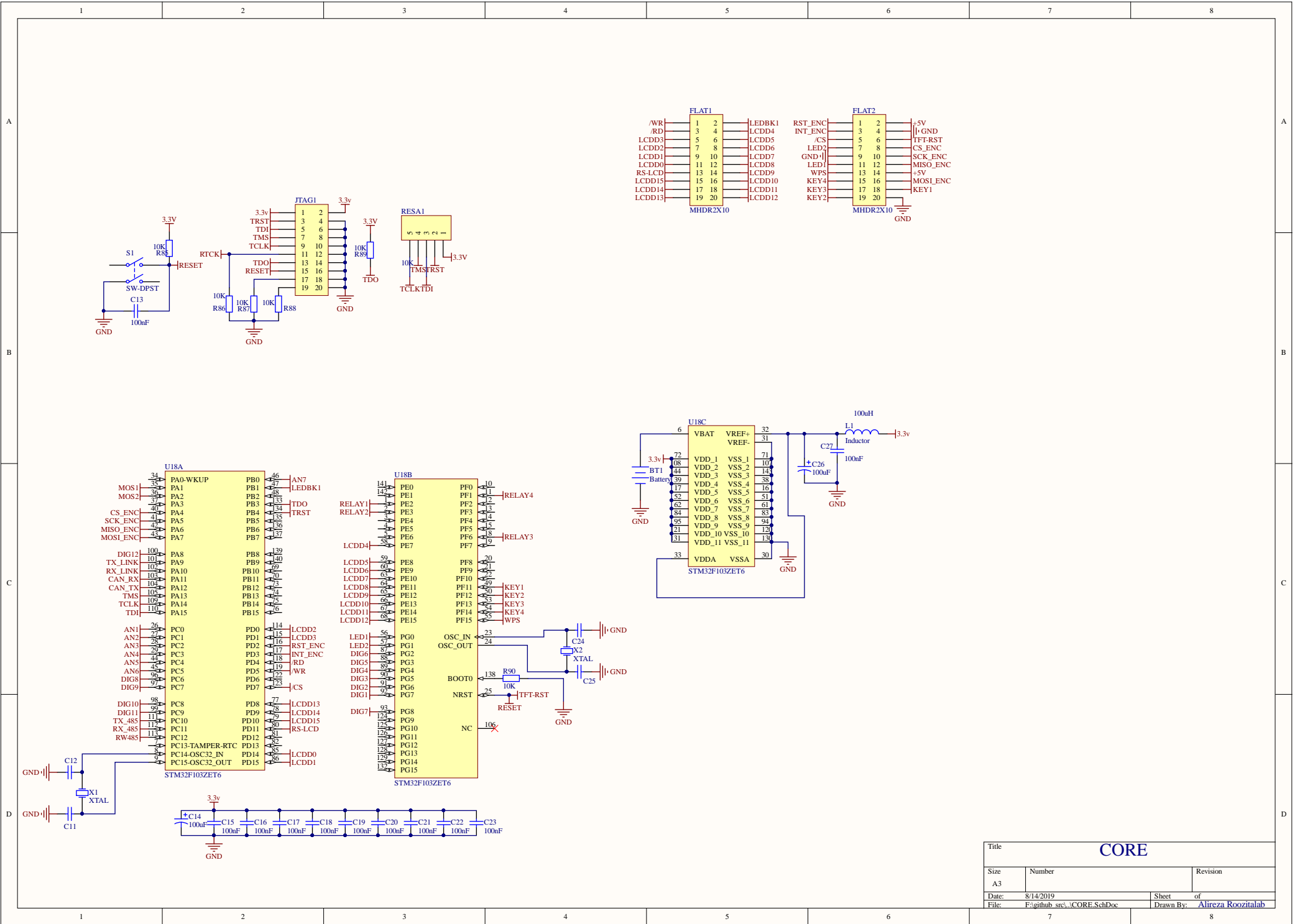
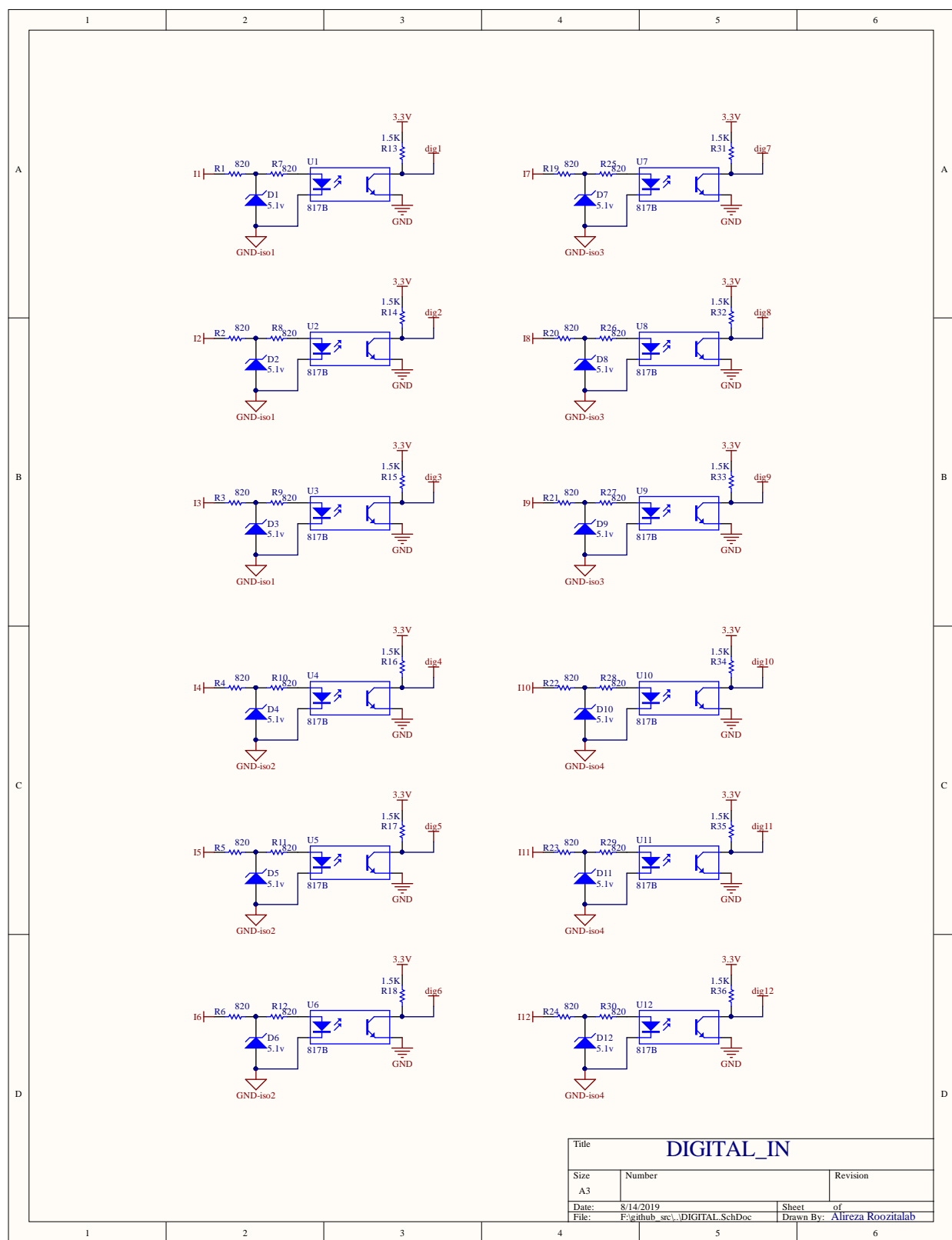
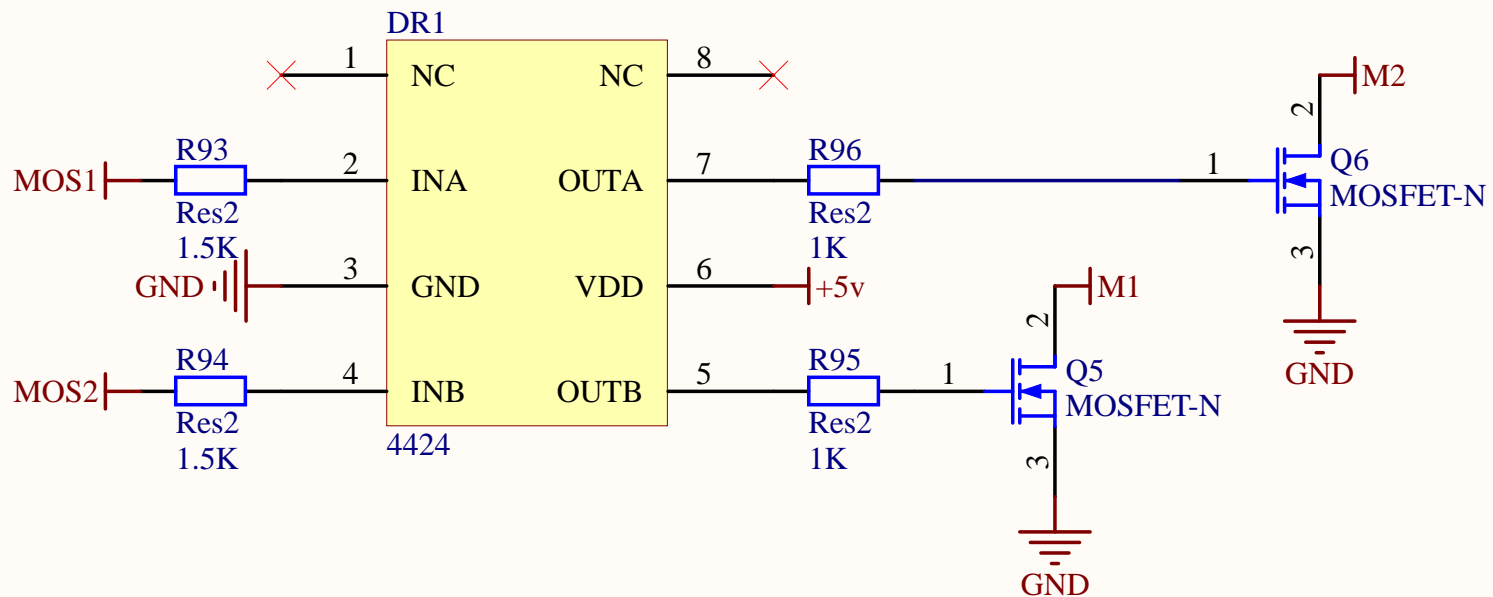


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Size	Number	Revision	
A3			
Date:	8/14/2019	Sheet	of
File:	F:\github_src\1\ANALOG_SchDoc	Drawn By:	Alireza Roozitalab

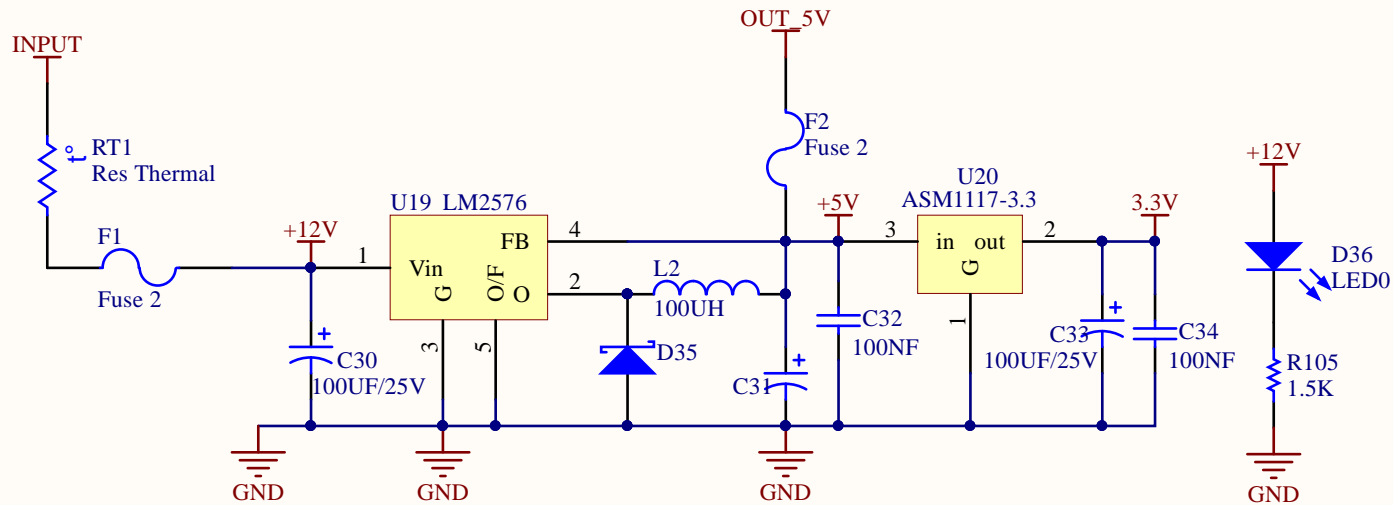








Title			PWM OUT		
Size	Number		Revision		
A3					
Date:	8/14/2019		Sheet	of	
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Title			POWER		
Size	Number		Revision		
A3					
Date:	8/14/2019		Sheet	of	
File:	F:\github_src\...\POWER.SchDoc		Drawn By:	Alireza Roozitalab	

A

A

B

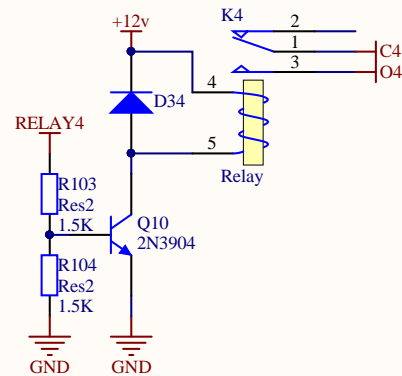
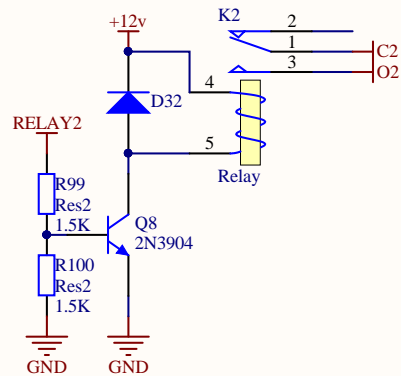
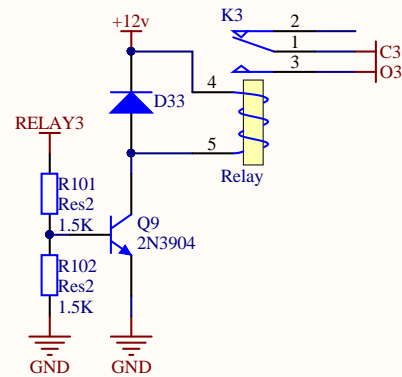
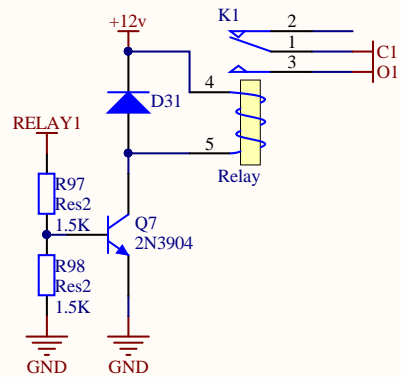
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C

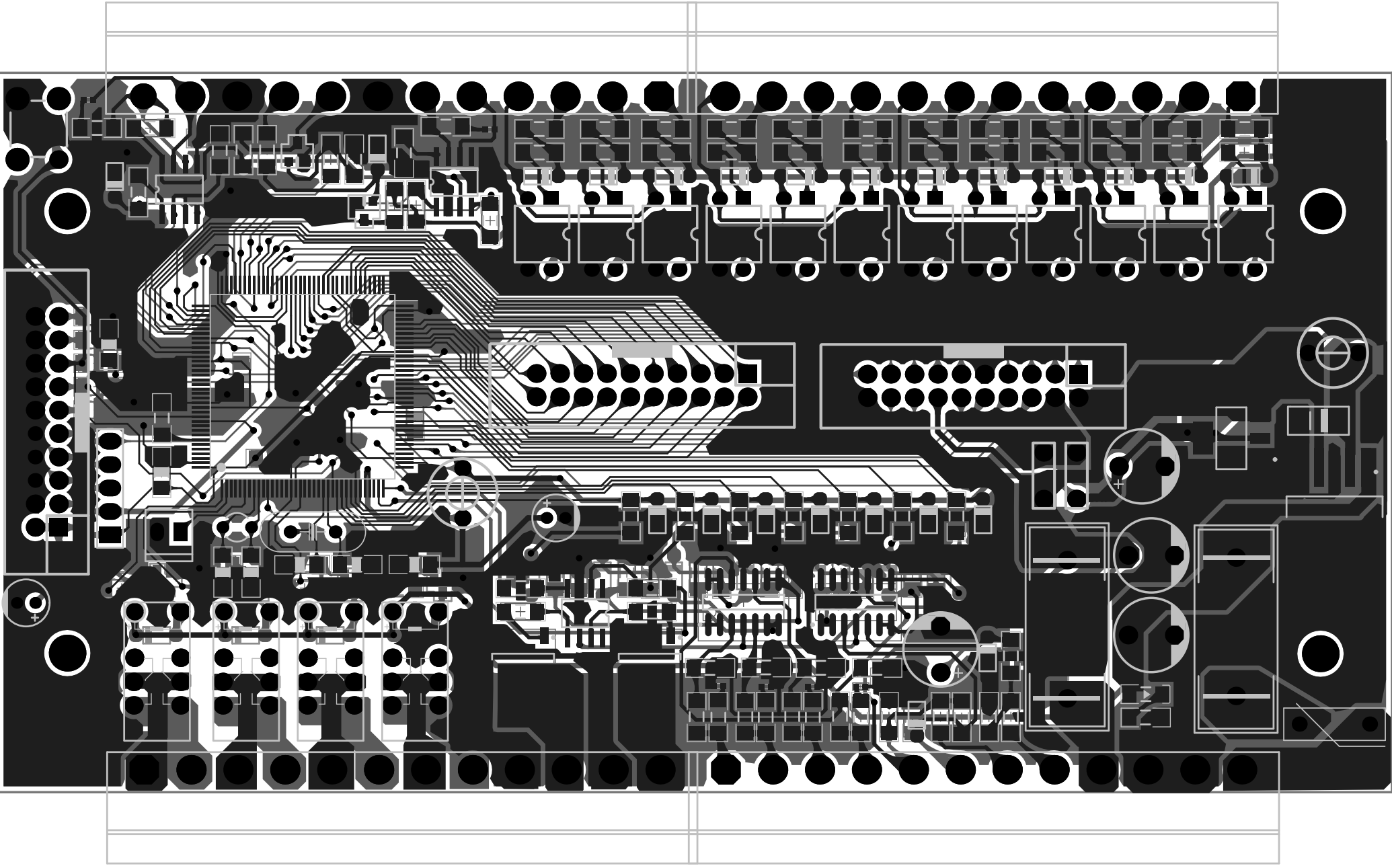
C

D

D



Title			RELAY		
Size	Number		Revision		
C					
Date:	8/14/2019		Sheet	of	
File:	F:\github_src\..\RELAY.SchDoc		Drawn By:	Alireza Roozitalab	



Comment	Description	Designator	Footprint	LibRef	Quantity
Battery	Multicell Battery	B1	HDR1*2	Battery	1
Cap	Capacitor	C1, C2, C3, C4, C5, C7, C8, C9, C10, C11, C12, C13, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C27	CAP 1206 (3216X08L)	Cap	24
Cap Pol1	Polarized Capacitor (Radial)	C6, C33	POL 100U/25V	Cap Pol1	2
Cap Pol1	Polarized Capacitor (Radial)	C14, C26	POL 100U16V	Cap Pol1	2
Cap Pol1	Polarized Capacitor (Radial)	C30, C31	POL 220U/35V	Cap Pol1	2
Cap	Capacitor	C32, C34	REC 10N	Cap	2
5.1v	Zener Diode	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D21, D22	Diode-1n4148 - SMD PAD	D Zener	14
1N4448	Default Diode	D13, D14, D15, D16, D23, D24, D25	Diode-1n4148 - SMD PAD	Diode	7
3.3V	Zener Diode	D17, D18, D19, D20, D26, D27, D28, D30	Diode-1n4148 - SMD PAD	D Zener	8
1N4148	Default Diode	D29	Diode-1n4148 - SMD PAD	Diode	1
Diode 1N4148	High Conductance Fast Diode	D31, D32, D33, D34	Diode-1n4148 - SMD PAD	Diode 1N4148	4
D Schottky	Schottky Diode	D35	DO214AC	D Schottky	1
LED0	Typical INFRARED GaAs LED	D36	led-1206	LED0	1
4424		DR1	SOP8	4424	1
Fuse 2	Fuse	F1, F2	fuse plastic holder	Fuse 2	2
MHDR2X10	Header, 10-Pin, Dual row	FLAT1, FLAT2, JTAG1	box 20	MHDR2X10	3
Relay	SPDT Relay	K1, K2, K3, K4	RELAY 12V ATX203	Relay	4
Inductor	Inductor	L1, L2	TR	Inductor	2
MHDR1X12	Header, 12-Pin	P1, P2, P3, P4	W23112R5MILH	MHDR1X12	4
2N3904	NPN General Purpose Amplifier	Q1, Q2, Q7, Q8, Q9, Q10	2N3906_SMD	2N3904	6
MOSFET-N	N-Channel MOSFET	Q5, Q6	dpak-to252	MOSFET-N	2
Res Semi	Semiconductor Resistor	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R49, R50, R51, R52, R53, R54, R55, R56, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84	RES 1206 (3216X08L)	Res Semi	64
Res2	Resistor	R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R57, R58, R59, R60, R61, R62, R63, R64, R85, R86, R87, R88, R89, R90, R93, R94, R95, R96, R97, R98, R99, R100, R101, R102, R103, R104	RES 1206 (3216X08L)	Res2	38
Res1	Resistor	R105	RES 1206 (3216X08L)	Res1	1
10K	Header, 5-Pin	RESA1	HEADER 5X1	MHDR1X5	1
Res Thermal	Thermistor	RT1	Varistor Short Hieght - Vertical	Res Thermal	1
SW-DPST	Double-Pole, Single-Throw Switch	S1	SW4	SW-DPST	1
817B	4-Pin Phototransistor Optocoupler	U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U11, U12	DIP+4	Optoisolator1	12
LM324AD	Low-Power Quad Operational Amplifier	U13, U15	SOP-14	LM324AD	2
ASM1117-3.3		U14, U20	SOT-223	ASM1117-3.3	2
MCP2551-I/SN	High-Speed CAN Transceiver, 8-Pin SOIC, Industrial Temperature	U16	SOP8	MCP2551-I/SN	1
MAX485CSA	Low-Power, Slew-Rate-Limited RS-485/RS-422 Transceiver	U17	SOP8	MAX485CSA	1
STM32F103ZET6	ARM Cortex-M3 32-bit MCU, 512 KB Flash, 64 KB Internal RAM, 112 I/Os, 144-pin LQFP, -40 to 85 degC, Tray	U18	TQ144	STM32F103ZET6	1
LM2576		U19	d2pak5-lead	LM2576-5V	1
Jumper	Jumper Wire	W1, W2, W3, W4, W5, W6	RES 0402 (1005X04L)	Jumper	6
XTAL	Crystal Oscillator	X1	XTAL RTC	XTAL	1
XTAL	Crystal Oscillator	X2	XTAL Small	XTAL	1