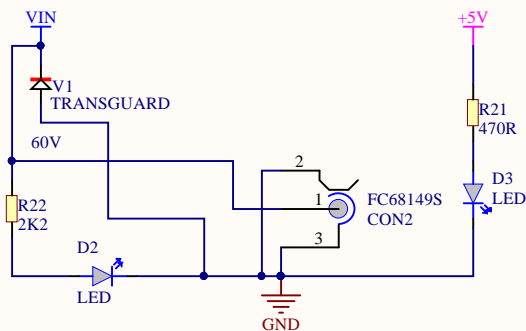
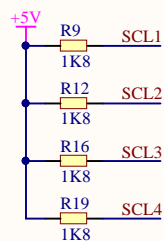
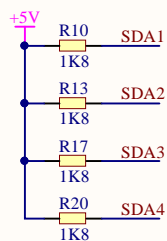
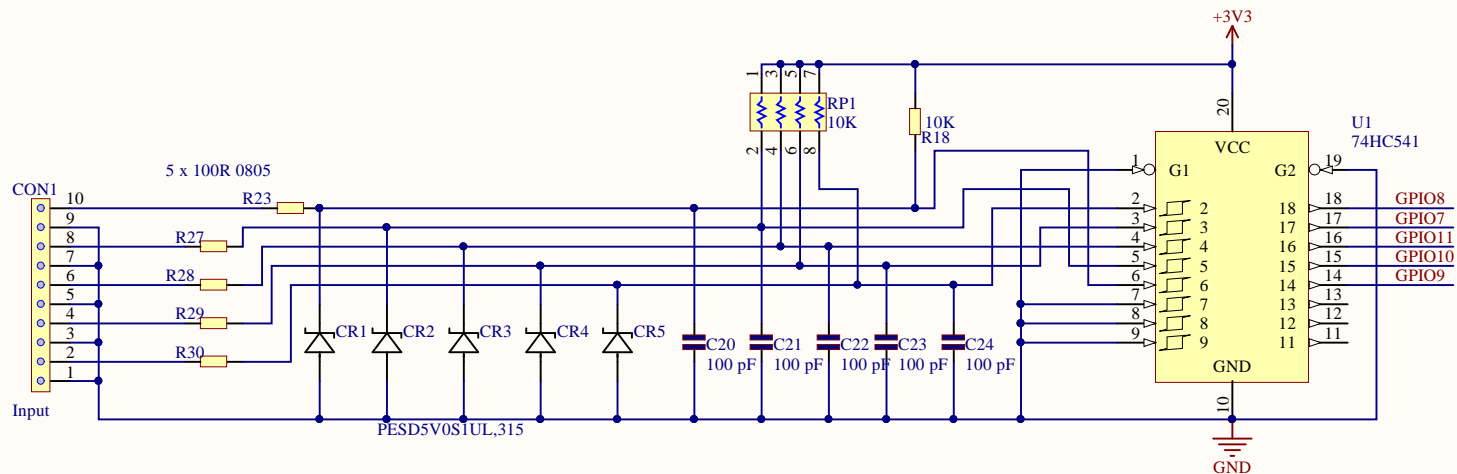
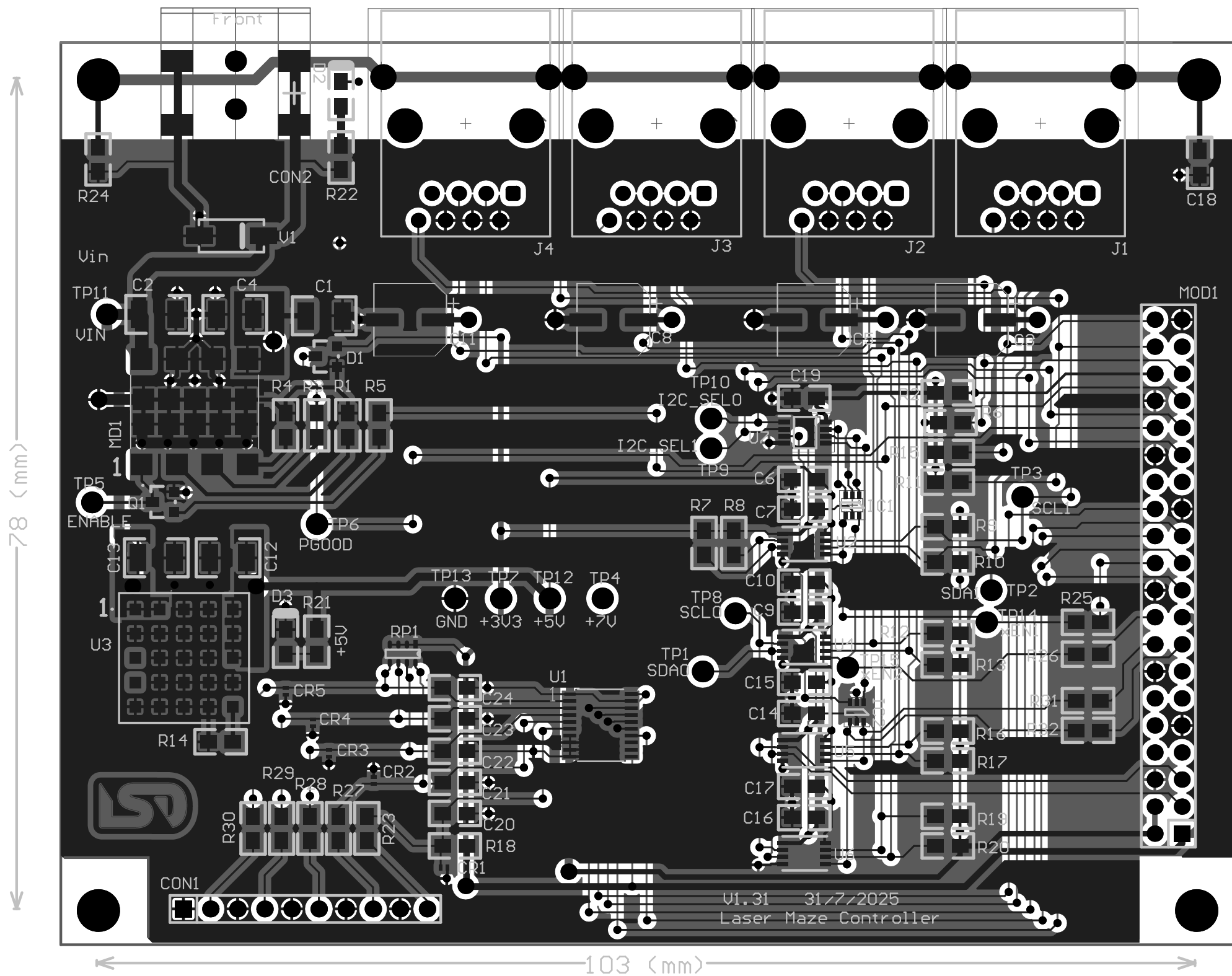


Title			LaserMazeController	
Size	A4	Number		
Date:	31/07/2025	Sheet	of	
File:	C:\Users\...\ControllerRPI.SchDoc		Drawn By:	



Title		
LaserMaze_io		
Size	Number	Revision
A4		
Date:	31/07/2025	Sheet of
File:	C:\Users\...\LaserMazeIO.SchDoc	Drawn By:



Comment	Description	Designator	Footprint	LibRef	Quantity
LSD LOGO		1	LSD Logo	LSD LOGO	1
10uF	SMT ceramic capacitor	C1, C2, C4, C12, C13	1210	CAP	5
47uF	6.3 x 5.4 mm case	C3, C5, C8, C11	CAPAE7067X55L	CAP-ELECTRO	4
100nF	SMT ceramic capacitor	C6, C7, C9, C10, C14, C15, C16, C17, C19	0805	CAP	9
1nF	SMT ceramic capacitor	C18	0805	CAP	1
100 pF	SMT ceramic capacitor	C20, C21, C22, C23, C24	0805	CAP	5
Input	Molex 10 pin connector 0.1"	CON1	SIP0.1_10	SIP10_0.1	1
FC68149S	DC-10BS 2.5mm Pin	CON2	DC_socket	DC_socket_2.5mm	1
PESD5V0S1UL,315	ESD Protection device	CR1, CR2, CR3, CR4, CR5	SOD882	PESD5V0S1UL,315	5
BAT54S-7-F	BAT54S Dual diode SOT23 num	D1	SOT23 NUM	BAT54S	1
LED	LED 0805/1206	D2, D3	0805-POL	LED	2
SN74LVC2G04	Dual buffer inverter - SC-70	IC1, IC2	SC-70	SN74LVC2G04	2
WR-MJ jack	WR-MJ Rear Post Modular Jack Vertical	J1, J2, J3, J4	WR_MJ_RJ45_Horiz	RJ45	4
MPM3550EGLE		MD1	MPM3550EGLE	MPM3550EGLE	1
RaspberryPi	Raspberry Pi Model B 3	MOD1	RPI_min	Rasb	1
NTR4003NT3G	MOSFET-N - numbered	Q1	SOT23 NUM	MOSFET-2	1
130K	Resistor	R1	0805	RES	1
1K8	Resistor	R2, R6, R7, R8, R9, R10, R11, R12, R13, R15, R16, R17, R19, R20	0805	RES	14
1K	Resistor	R3	0805	RES	1
7.68K	Resistor	R4	0805	RES	1
470R	Resistor	R5, R21	0805	RES	2
470K	Resistor	R14	0805	RES	1
10K	Resistor	R18	0805	RES	1
2K2	Resistor	R22	0805	RES	1
100R	Resistor	R23, R27, R28, R29, R30	0805	RES	5
1M	Resistor	R24	0805	RES	1
0R	Resistor	R25, R26, R31, R32	0805	RES	4
10K	Chip resistor array (4)	RP1	1206_4	RESNET-SMT4	1
SDA0	Testpoint	TP1	Testpoint	TestPoint	1
SDA1	Testpoint	TP2	Testpoint	TestPoint	1
SCL1	Testpoint	TP3	Testpoint	TestPoint	1
VCC	Testpoint	TP4	Testpoint	TestPoint	1
ENABLE	Testpoint	TP5	Testpoint	TestPoint	1
PGOOD	Testpoint	TP6	Testpoint	TestPoint	1
+3V3	Testpoint	TP7	Testpoint	TestPoint	1
SCL0	Testpoint	TP8	Testpoint	TestPoint	1
SEL1	Testpoint	TP9	Testpoint	TestPoint	1
SEL0	Testpoint	TP10	Testpoint	TestPoint	1
VIN	Testpoint	TP11	Testpoint	TestPoint	1
+5V	Testpoint	TP12	Testpoint	TestPoint	1
GND	Testpoint	TP13	Testpoint	TestPoint	1
xEN1	Testpoint	TP14	Testpoint	TestPoint	1
xEN2	Testpoint	TP15	Testpoint	TestPoint	1
74HC541	Shmitt trigger buffer	U1	TSSOP20B_TOS-L	74HC541 Schmitt trigger buffer	1
PCA9509GM	IO Expander	U2, U4, U5, U6	TSSOP8	PCA9509GM	4
RPMB5.0-3.0	3A SMD switching regulator	U3	RPMB5.0-3	RPMB-3.0	1
SN74LVC1G139DC Mux/Selector		U7	SOP65P400X130-8N	SN74LVC1G139DC Mux/Selector	1
TRANSGUARD	Transient voltage suppressor	V1	Diode8x6mm	TRANSGUARD	1