

Source:/home/.../Traincontroller.kicad_sch

Count: 84

Collated Components:

Item	Qty	Reference(s)	Value	LibPart	Footprint
1	1	C1	1uF	Device:C_Polarized	Capacitor_THT:CP_Radial_D5.0mm_P2.50mm
2	5	C2, C3, C4, C5, C6	100n	Device:C	Capacitor_THT:C_Disc_D4.3mm_W1.9mm_P5.00mm
3	1	C7	100uF 35V	Device:C_Polarized	Capacitor_THT:CP_Radial_D8.0mm_P3.50mm
4	2	C8, C9	1uF 35V	Device:C_Polarized	Capacitor_THT:CP_Radial_Tantal_D5.0mm_P2.50mm
5	3	C10, C13, C14	100nF	Device:C	Capacitor_THT:C_Disc_D4.3mm_W1.9mm_P5.00mm
6	2	C11, C12	10n	Device:C	Capacitor_THT:C_Axial_L3.8mm_D2.6mm_P7.50mm_Horizontal
7	2	D1, D7	1N4148	Device:D	Diode_THT:D_DO-15_P10.16mm_Horizontal
8	4	D2, D4, D8, D10	1N5819	Device:D	Diode_THT:D_DO-15_P10.16mm_Horizontal
9	2	D3, D9	LED forward	Device:LED	Diode_THT:D_DO-15_P10.16mm_Horizontal
10	2	D5, D11	LED reverse	Device:LED	Diode_THT:D_DO-15_P10.16mm_Horizontal
11	2	D6, D12	output overload LED	Device:LED	Connector_PinHeader_2.54mm:PinHeader_1x02_P2.54mm_Vertical
12	2	D13, D14	LED	Device:LED	LED_THT:LED_D3.0mm
13	1	D15	1N5819	Diode:1N5819	Diode_THT:D_DO-41_SOD81_P10.16mm_Horizontal
14	1	J1	Power Supply 14V	Connector:Conn_01x02_Pin	Connector_Wire:SolderWire-0.75sqmm_1x02_P7mm_D1.25mm_OD3.5mm
15	1	J2	to rails 1	Connector:Conn_01x02_Pin	Connector_Wire:SolderWire-0.75sqmm_1x02_P7mm_D1.25mm_OD3.5mm
16	1	J3	to rails 2	Connector:Conn_01x02_Pin	Connector_Wire:SolderWire-0.75sqmm_1x02_P7mm_D1.25mm_OD3.5mm
17	1	J4	Potentiometer connector	Connector:Conn_01x04_Socket	Connector_PinHeader_2.54mm:PinHeader_1x04_P2.54mm_Vertical
18	4	K1, K2, K3, K4	AZ850P1-x	Relay:AZ850P1-x	Relay_THT:Relay_DPDT_FRT5
19	4	Q1, Q3, Q5, Q7	BC337	Transistor_BJT:BC337	Package_TO_SOT_THT:TO-92_Inline
20	4	Q2, Q4, Q6, Q8	2N7000	Transistor_FET:2N7000	Package_TO_SOT_THT:TO-92_Inline
21	9	R1, R3, R5, R6, R13, R16, R17, R24, R25	1k	Device:R	Resistor_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P10.16mm_Horizontal
22	2	R2, R4	3k6	Device:R	Resistor_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P10.16mm_Horizontal
23	2	R7, R19	2R 0.5W	Device:R	Resistor_THT:R_Axial_DIN0414_L11.9mm_D4.5mm_P15.24mm_Horizontal
24	8	R8, R9, R12, R14, R18, R20, R23, R26	10k	Device:R	Resistor_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P10.16mm_Horizontal
25	2	R10, R21	3k3	Device:R	Resistor_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P10.16mm_Horizontal
26	2	R11, R22	33k	Device:R	Resistor_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P10.16mm_Horizontal
27	2	R15, R27	2k2	Device:R	Resistor_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P10.16mm_Horizontal
28	2	R28, R29	240R	Device:R	Resistor_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P10.16mm_Horizontal
29	2	R30, R31	2k7	Device:R	Resistor_THT:R_Axial_DIN0207_L6.3mm_D2.5mm_P10.16mm_Horizontal
30	1	U1	RP2040-Pico	rp2040-pico:RP2040-Pico	wolff's footprints:RP2040-Pico
31	1	U2	L7805	Regulator_Linear:L7805	Package_TO_SOT_THT:TO-220-3_Horizontal_TabDown
32	1	U3	MCP42100	Potentiometer_Digital:MCP42100	Package_DIP:DIP-14_W7.62mm
33	3	U4, U7, U8	LM358	Amplifier_Operational:LM358	Package_DIP:DIP-8_W7.62mm
34	2	U5, U6	LM317	Regulator_Linear:LM317_TO-220	Package_TO_SOT_THT:TO-220-3_Vertical