

C:\Users\mzito\Documents\Kicad \Rail_Conn_Sensing\Rail_Conn_Sensing.sch

7/17/2020 1:45:42 PM

Eeschema (5.1.5)-3

Component Count:27

Ref	Qty	Value	Part	Datasheet	Description	Vendor
C1, C2, C3, C4	4	10uF	Device:CP1	~	Polarized capacitor, US symbol	
D1, D2, D3	3	GREEN	Device:LED	~	Light emitting diode	
J1	1	Rail Sensing Inputs	Connector:Screw_Terminal_01x04 ~		Generic screw terminal, single row, 01x04, script generated (kicad-library- utils/schlib /autogen /connector/)	
J2	1	Vin & GND	Connector:Screw_Terminal_01x02 ~		Generic screw terminal, single row, 01x02, script generated (kicad-library- utils/schlib /autogen /connector/)	
J3	1	Outputs	Connector:Screw_Terminal_01x03 ~		Generic screw terminal, single row, 01x03, script generated (kicad-library- utils/schlib /autogen /connector/)	
PS1, PS2	2	PQMCE1- S5-S5-S	PQMCE1-S5-S5-S:PQMCE1-S5- S5-S	1.0	5V-5V DC Isolated Converter	

R1, R2	2	1000	Device:R	~	Resistor
R3, R4, R7, R8, R9	5	100	Device:R	~	Resistor
R5	1	600	Device:R	~	Resistor
R6	1	400	Device:R	~	Resistor
U1, U2	2	AMC1200	AMC1200:AMC1200		Isolation Amplifier 1MHz, Low- Power Op
U3	1	MCP6004	Amplifier_Operational:MCP6004	http://ww1.microchip.com/downloads/en/DeviceDoc/21733j.pdf	DIP-14/SOIC-14/TSSOP-14
U4	1	74LS00	74xx:74LS00	http://www.ti.com/lit/gpn/sn74ls00	quad 2-input NAND gate
U5	1	74LS86	74xx:74LS86	74xx/74ls86.pdf	Quad 2-input XOR
U6	1	L7805	Regulator_Linear:L7805	http://www.st.com/content/ccc/resource/technical/document/datasheet/41/4f/b3/b0/12/d4/47/88/CD00000444.pdf/files/CD00000444.pdf/jcr:content/translations/en.CD00000444.pdf	Positive 1.5A 35V Linear Regulator, Fixed Output 5V, TO-220/TO-263/TO-252