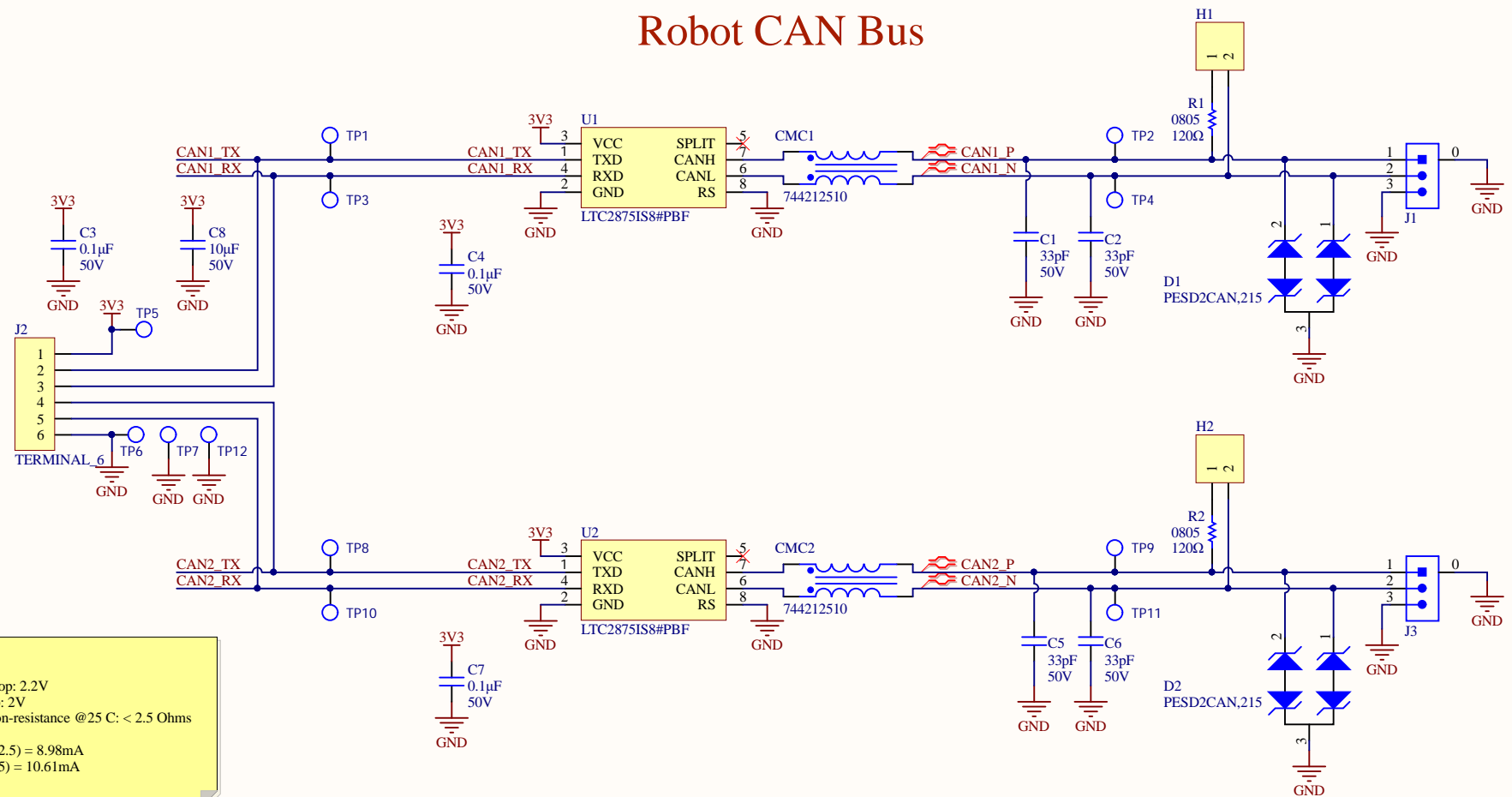


NVIDIA Jetson TX2

Robot CAN Bus

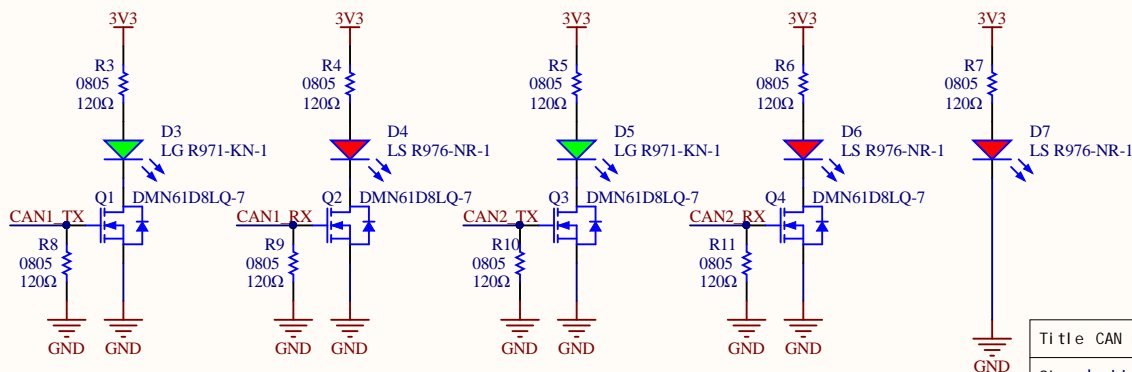


Current Calculations

Green LED voltage drop: 2.2V
 Red LED voltage drop: 2V
 N-channel MOSFET on-resistance @25°C: < 2.5 Ohms

$$- I = (3.3 - 2.2V) / (120 + 2.5) = 8.98mA$$

$$- I = (3.3 - 2V) / (120 + 2.5) = 10.61mA$$



Title: CAN Breakout

Size: Letter Drawn By: Christopher Arjune

Date: 9/9/2020

Sheet 1 of 1

File: D:\RNS\grade_11_and_12\others\Waterloo\18\Robotics_Team\Electrical\2020\MarsRover2020-PCB\Project



Comment	Description	Designator	Footprint	LibRef	Qu
CAP_33pF_50V_0603	CAP CER 33PF 50V C0	C1, C2, C5, C6	CAPC0603(1608)55_N	CAP_33pF_50V_0603	
0.1μF	CAP CER 0.1UF 50V X	C3, C4, C7	CAPC2012X140N	CAP_0.1uF_50V_0805	
10uF	CAP CER 10UF 50V X5	C8	CAPC1206(3216)	CAP_10uF_50V_1206	
	CMC 51uH 300MA 2LN	CMC1, CMC2	744212510	CMC_51uH	
TVS_DIODE_CAN	TVS DIODE 24V 41V S	D1, D2	TVS_DIODE_CAN	TVS_DIODE_CAN	
LG R971-KN-1	LED GREEN DIFFUSE	D3, D5	LED_0805_LINE	DIO_LED_G	
LS R976-NR-1	LED RED DIFFUSED C	D4, D6, D7	LED_0805_LINE	DIO_LED_R	
JUMPER_2	HEADER 2X1	H1, H2	HDR1X2	JUMPER_2	
CON_3M_SM4	CONN HEADER SMD	J1, J3	JST-B3B-SM4-TB	CON_3M_SM4	
TERMINAL_6	Header, 6-Pin	J2	OSTYK51106030	TERMINAL_6	
NMOS_60V_470mA	MOSFET N-CH 60V SO	Q1, Q2, Q3, Q4	SOT23-3	NMOS_60V_470mA	
120	RES SMD 120 OHM 1%	R1, R2, R3, R4, R5, R	RESC2012X60N	RES_120Ω_0805	
TESTPOINT_LOOP	PC TEST POINT MINI	TP1, TP2, TP3, TP4, T	TESTPOINT_LOOP	TESTPOINT_LOOP	
IC TXRX CAN	IC TXRX CAN 4MBPS	U1, U2	LT-S8_N	LTC2875	