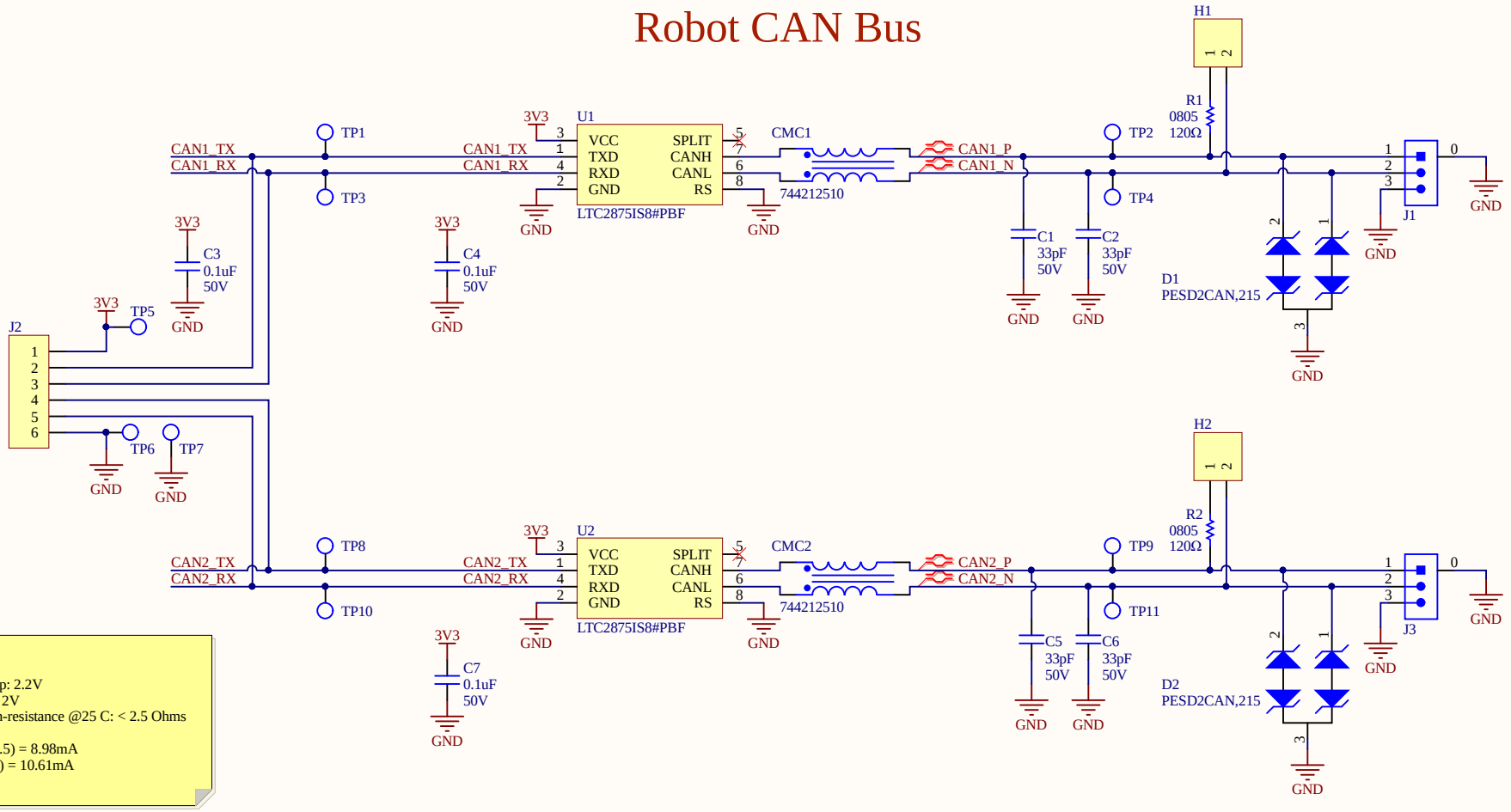
NVIDIA Jetson TX2

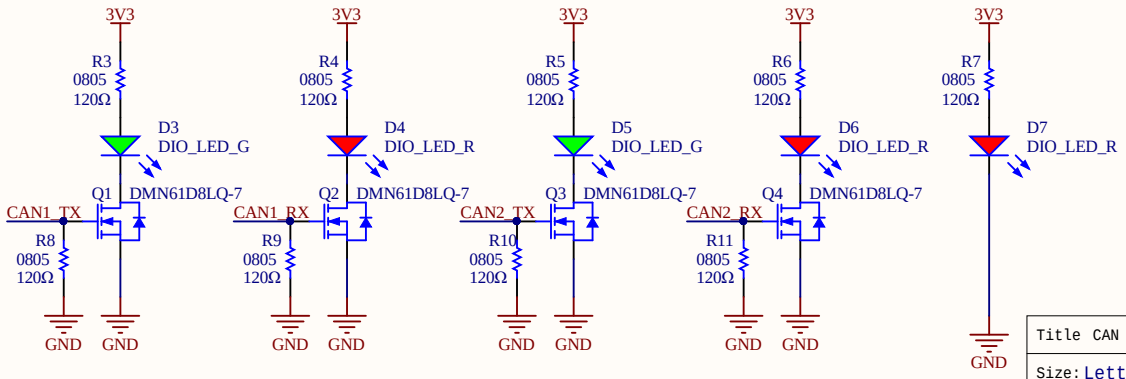
Robot CAN Bus



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: 8/31/2020	Sheet 1 of 1	
File: D:\RNS\grade_11_and_12\others\Waterloo\1B\Robotics_Team\Electrical\2020\MarsRover2020-PCB\Projects		

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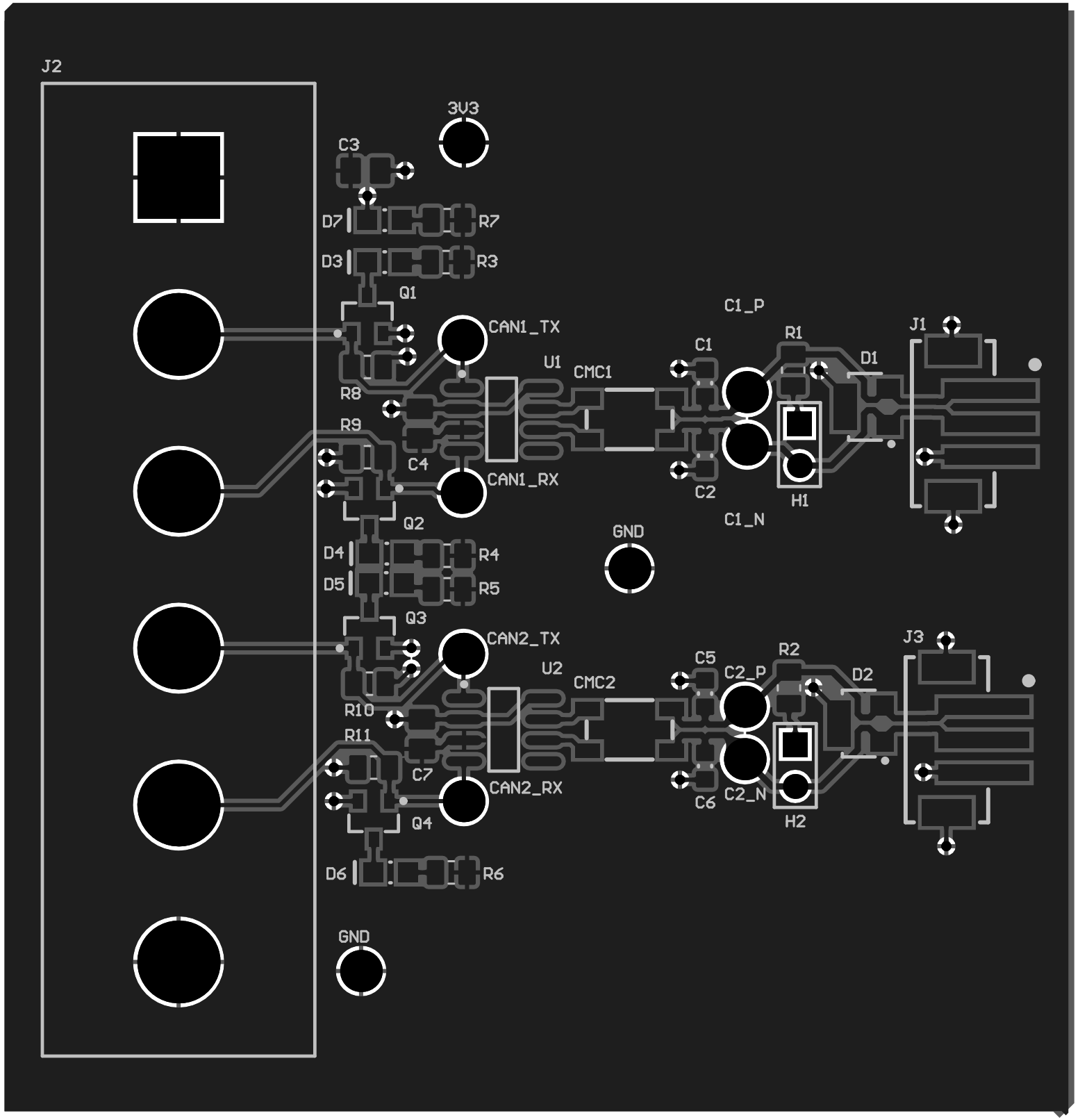
J2
3V3
C3
D7
R7
D3
R3
Q1
CAN1_TX
U1
CMC1
C1_P
C1
R1
D1
J1
R8
R9
C4
CAN1_RX
C2
C1_N
H1
Q2
GND
D4
R4
D5
R5
Q3
CAN2_TX
U2
CMC2
C5
C2_P
R2
D2
J3
R10
R11
C7
CAN2_RX
C6
C2_N
H2
Q4
D6
R6
GND

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	
CAP_0.1uF_50V_0805	CAP CER 0.1UF 50V X	C3, C4, C7	CAPC2012X140N	CAP_0.1uF_50V_0805	
	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	
DIO_LED_G	LED GREEN DIFFUSE	D3, D5	LED_0805_LINE	DIO_LED_G	
DIO_LED_R	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 3	J1, J3	JST-B3B-SM4-TB	CON_3M_SM4	
	Header, 6-Pin	J2	OSTYK51106030	TERMINAL_6	
	MOSFET N-CH 60V SC	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	Loop testpoint throug	TP1, TP2, TP3, TP4, T	TESTPOINT_LOOP	TESTPOINT_LOOP	
IC TXRX CAN	IC TXRX CAN 4MBPS 8	U1, U2	LT-S8_N	LTC2875	