
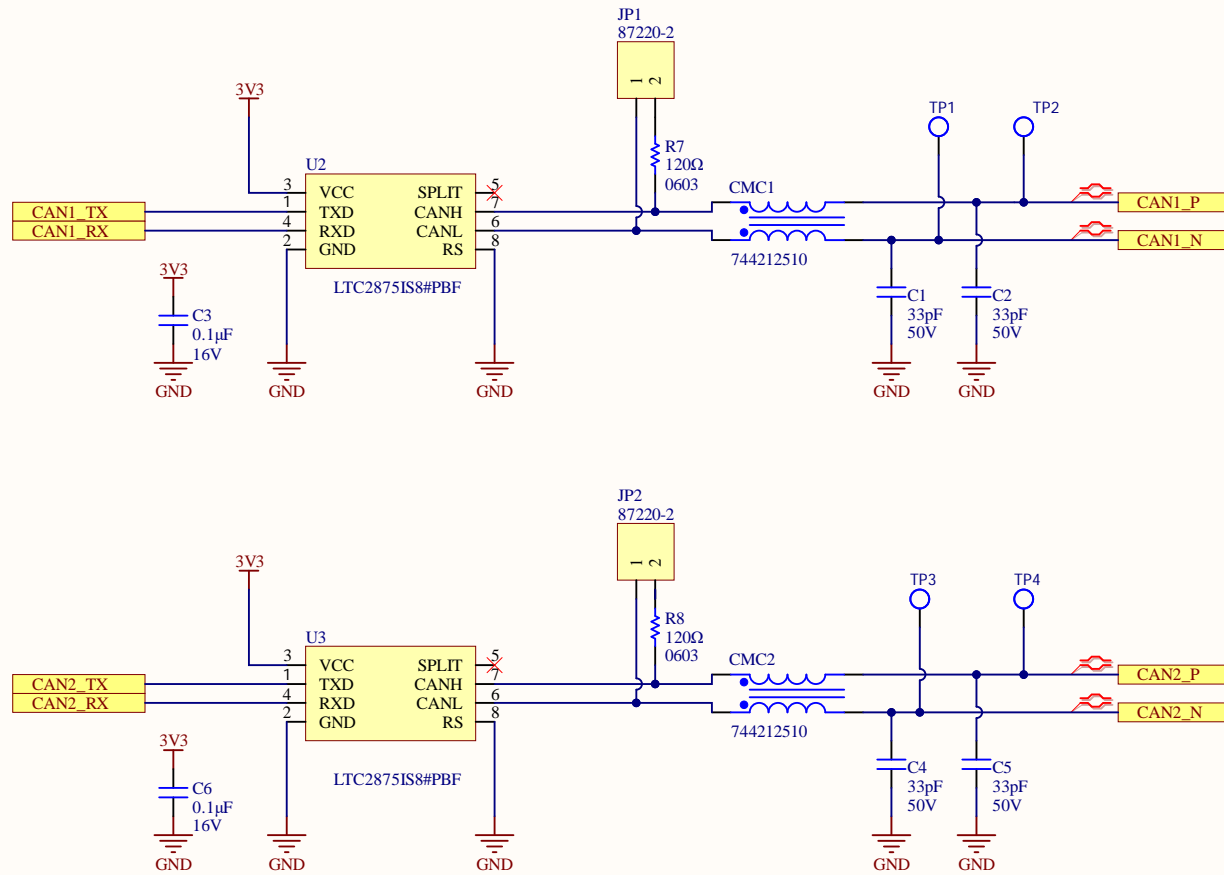
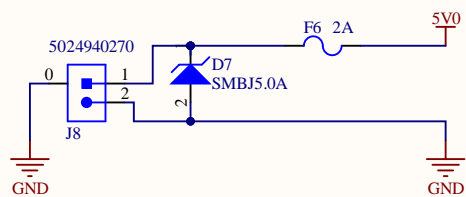


Title Science - 2_MCU		UW Robotics 200 University Avenue Waterloo Ontario Canada N2L 3G6		
Size: Letter	Drawn By: Christopher Arjune			
Date: 8/14/2020	Sheet 2 of 6			
File: C:\Users\badpr\al ti u m_p o r j e c t s \ M a r s R o v e r 2 0 2 0 - P C B \ P r o j e c t s \ S c i e n c e \ R e v \ S H 4 - M I C R O C O N T R O L L E R . S c h				

# CAN Transceivers





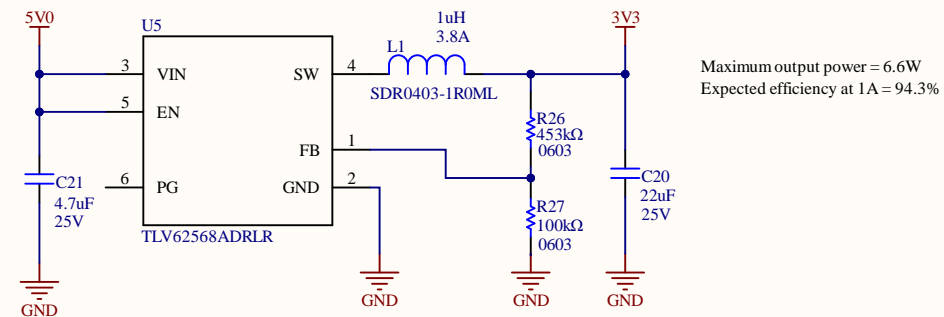
## 5V - 3.3V Buck Converter

Designed for 3.3V - 5V input

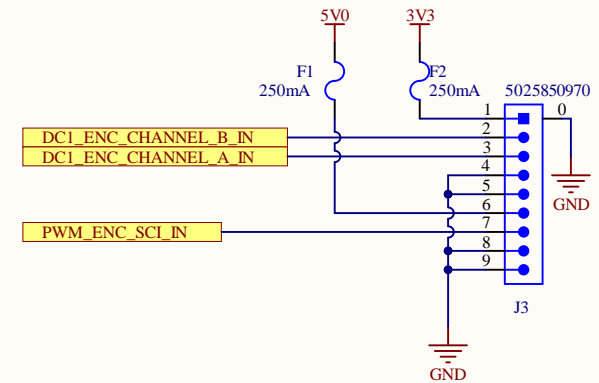
Route for 1A in

Inductor: SDR0403-1R0ML  
1uH, 20%, 33mOhm DCR (max)  
3.8A (rms), 5.5A (sat), 3.2mm tall

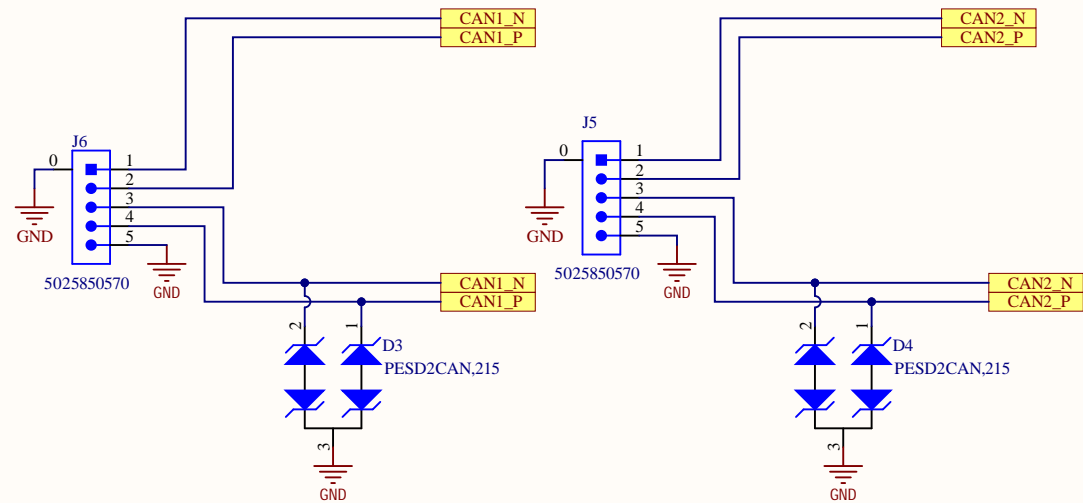
Route for 3A out



## Encoders

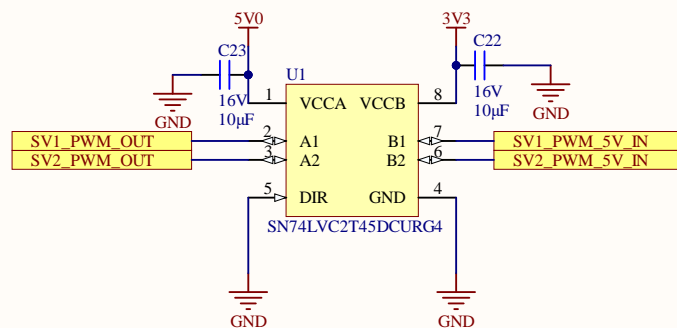


## CAN



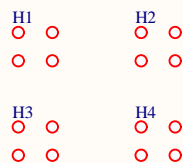
Title: Science - 5_Integrated-Connectors		UW Robotics 200 University Avenue Waterloo Ontario Canada N2L 3G6	UW <b>ROBOTICS</b> TEAM
Size: Letter	Drawn By: Wolfgang Windholtz		
Date: 8/14/2020	Sheet 5 of 6		
File: C:\Users\badpral\tim_projects\MarsRover2020-PCB\Projects\Science\Rev2\SH2 - CONNECTORS_SchDoc			

## Servo Level Shifters



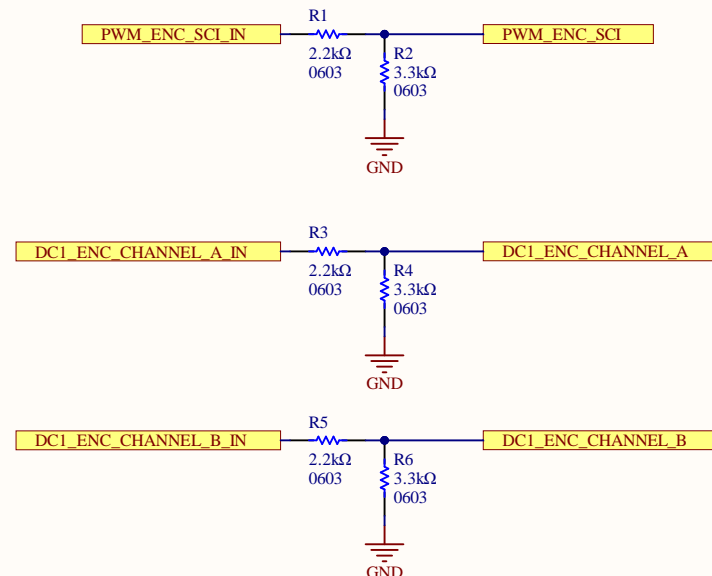
Decoupling values may need to be changed

## Mounting Holes



## Encoder Voltage Dividers

### 5V - 3V Conversion



H1

H3

J7

J3

F2

R5

R3

F1

R2

R6

R4

R1

R11

R12

R13

R14

UART\_RX1

P1

GND

IO

CLK

RST

VCC

TX

RX

RTS

UART\_TX1

S1

R21

C9

R20

C8

C12

U4

C15

R19

Y1

C7

C13

C19

D6

D5

R15

R16

R18

R10

R9

R22

R23

F5

C23

F4

C10

S2

J4

J2

H2

3

U2

C6

U3

JP2

R8

TP4

CMC2

D4

L1

C20

U5

C21

R26

R27

J8

F6

TP3

D7

C4

J6

D3

C2

TP5

TP6

CMC1

C1

J5

R25

R24

H4

