

A

A

B

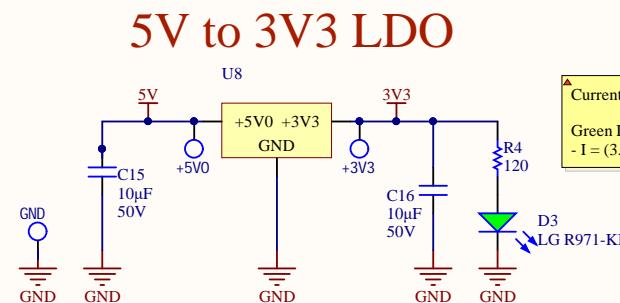
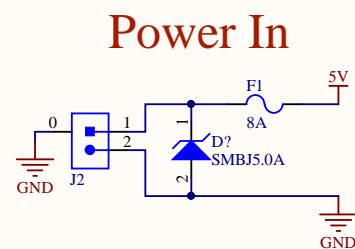
B

C

C

D

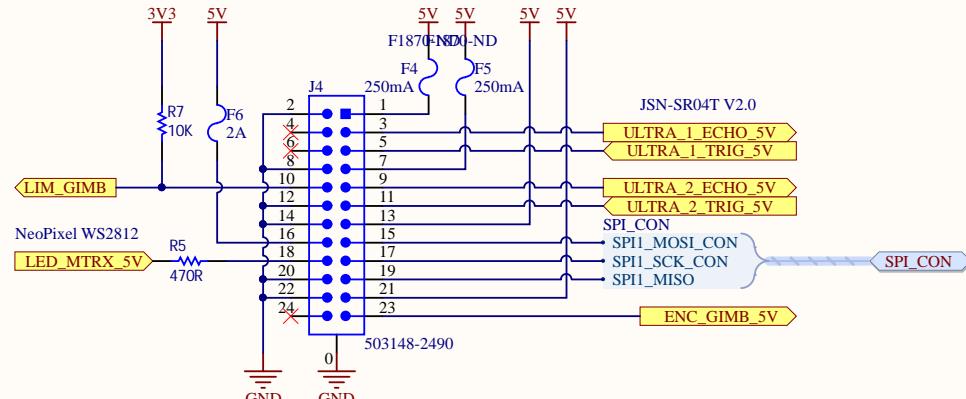
D



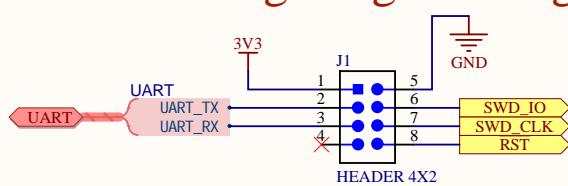
Current Calculations

Green LED voltage drop: 2.2V
 $I = (3.3-2.2V)/120 = 10.83mA$

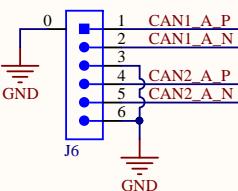
Sensors/Limit Switch/LED Matrix



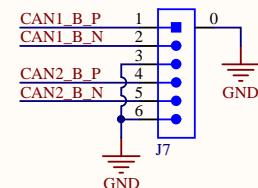
Debug/Programming



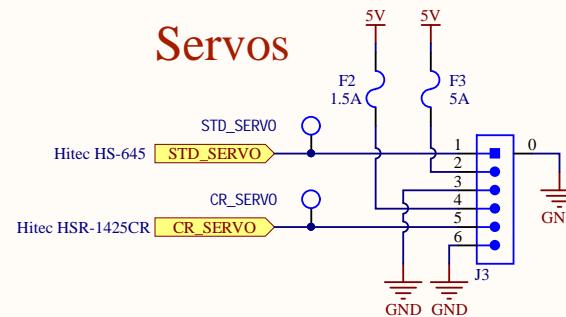
CAN In



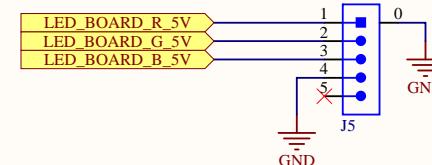
CAN Out



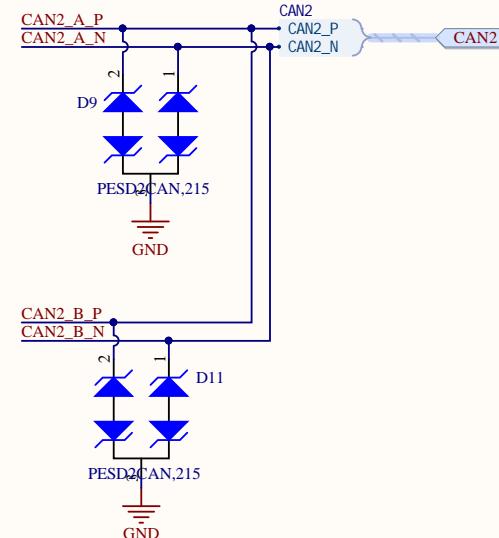
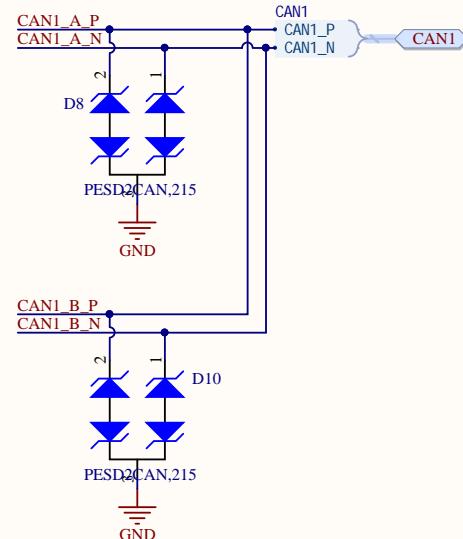
Servos



LED Matrix PCB

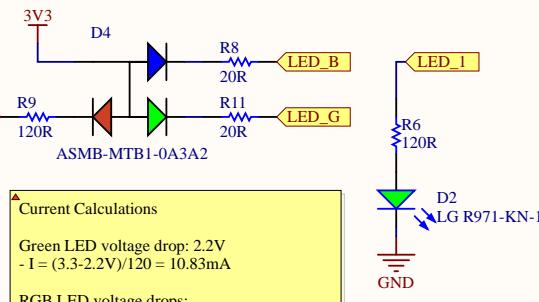


CAN Protection

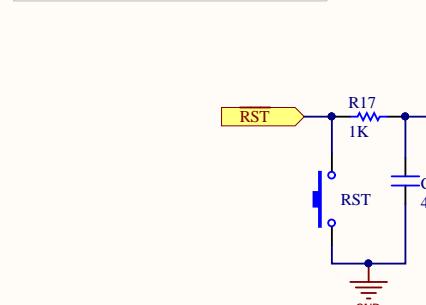


Test LEDs

A



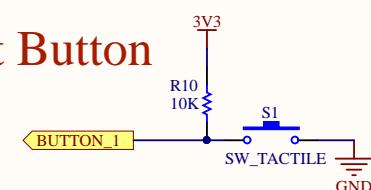
B



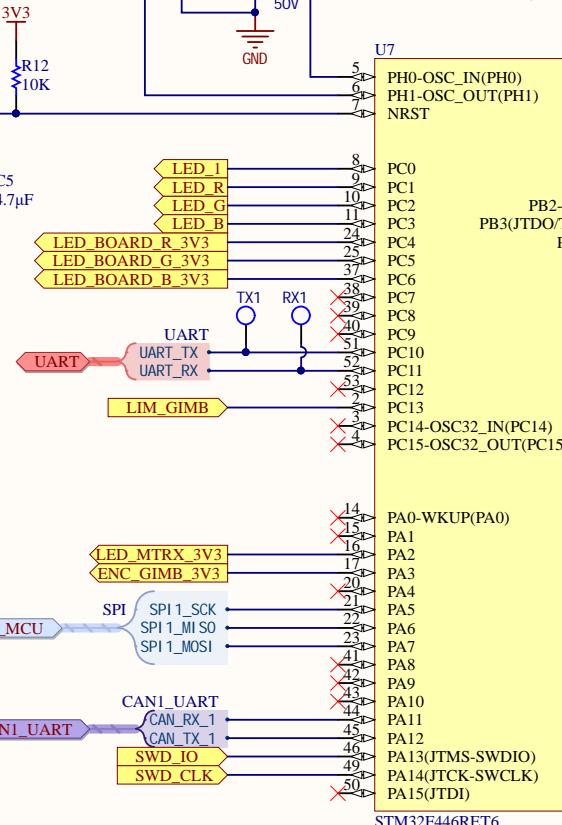
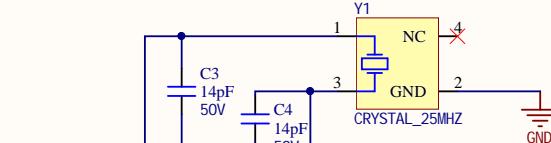
C

CubeMX is NOT DONE (waiting to hear about potential gimbal mechanical redesign)

D

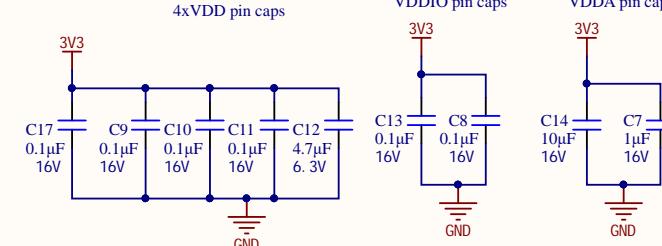


STM32F446RET6



Decoupling Caps

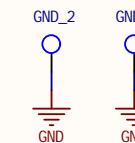
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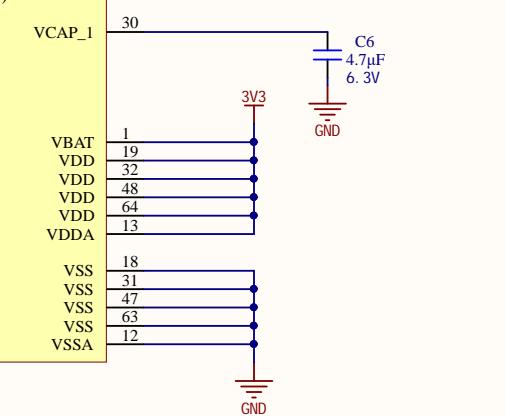
A

GND Test Points

B



C



D



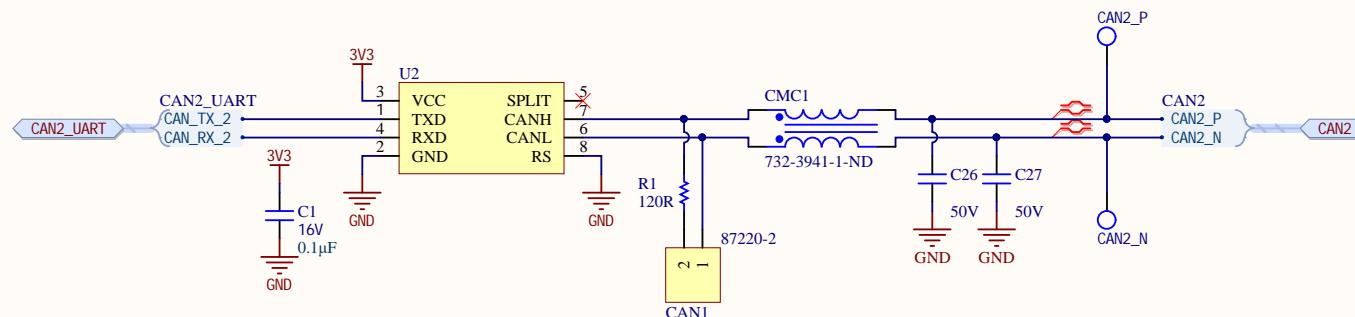
A

A

CAN Transceivers

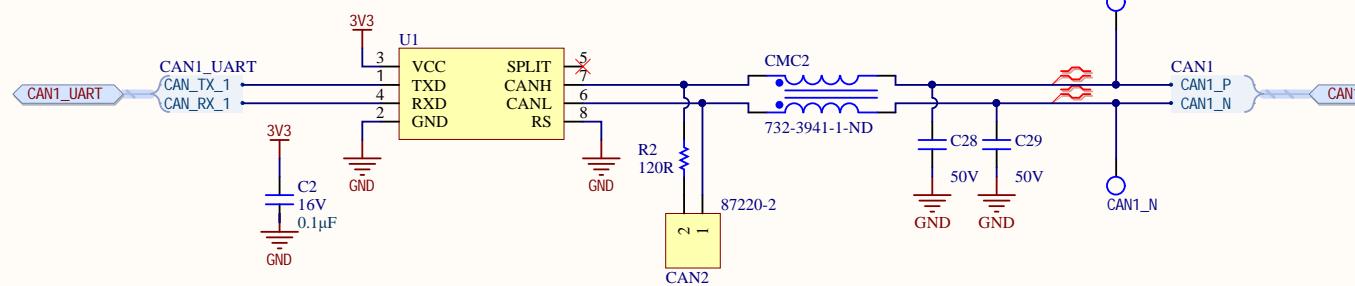
B

B



C

C

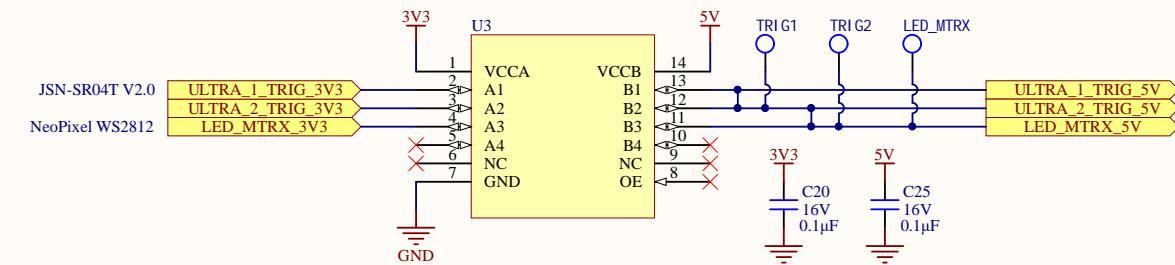


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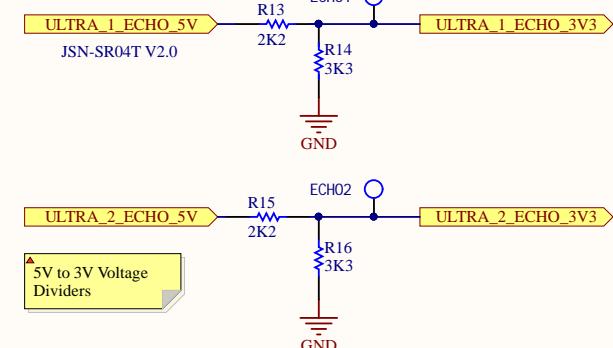
D

Title Gimbal - CAN		UW Robotics 200 University Avenue Waterloo Ontario Canada N2L 3G6	
Size: Letter	Drawn By: Aidan Gratton & Jing Hao Yao		
Date: 2020-06-02		Sheet 15 of 7	
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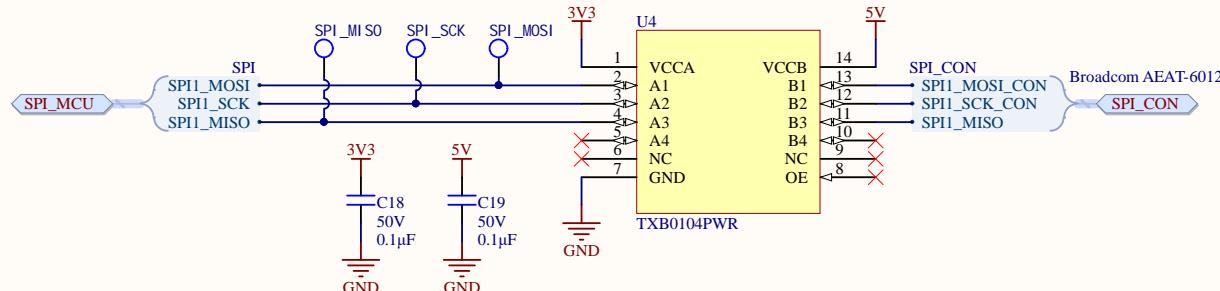
Ultrasonic/LED Matrix Level Shifters



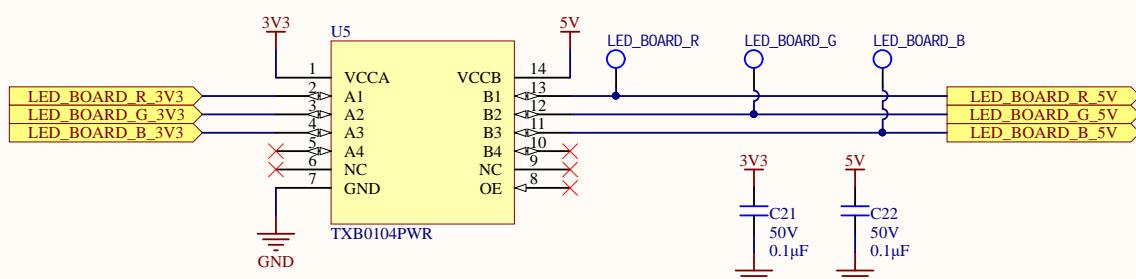
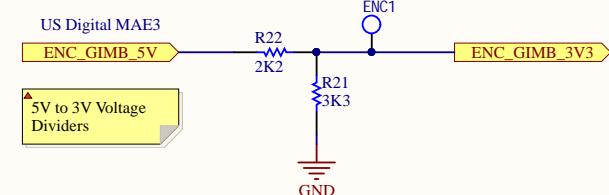
Ultrasonic Voltage Dividers



SPI Encoder Level Shifter



PWM Encoder Voltage Divider





Title Gimbal Support Schematic		UW Robotics 200 University Avenue Waterloo Ontario Canada N2L 3G6	
Size: Letter	Drawn By: Aidan Gratton		
Date: 2020-06-02		Sheet 7 of 7	
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