

A

A

B

B

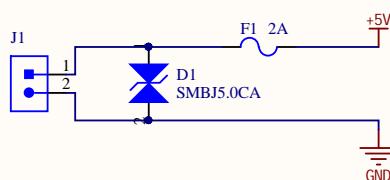
C

C

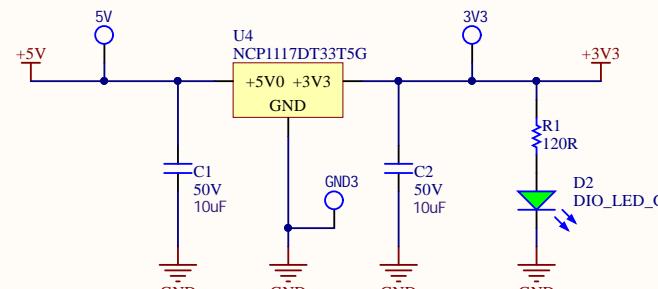
D

D

## Power In

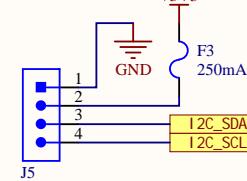
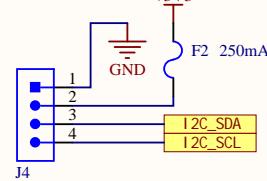


## LDO Voltage Regulator

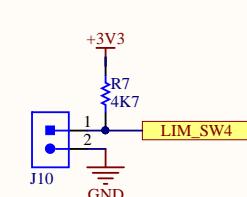
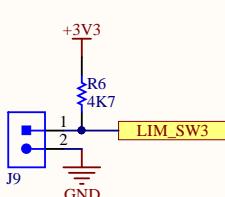
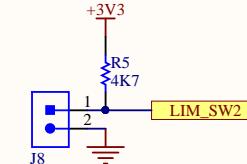
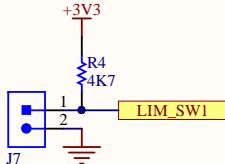


▲ V2: Replace LDO with an LDO  
 with less ESR requirements  
 - Explore adding bulk capacitor

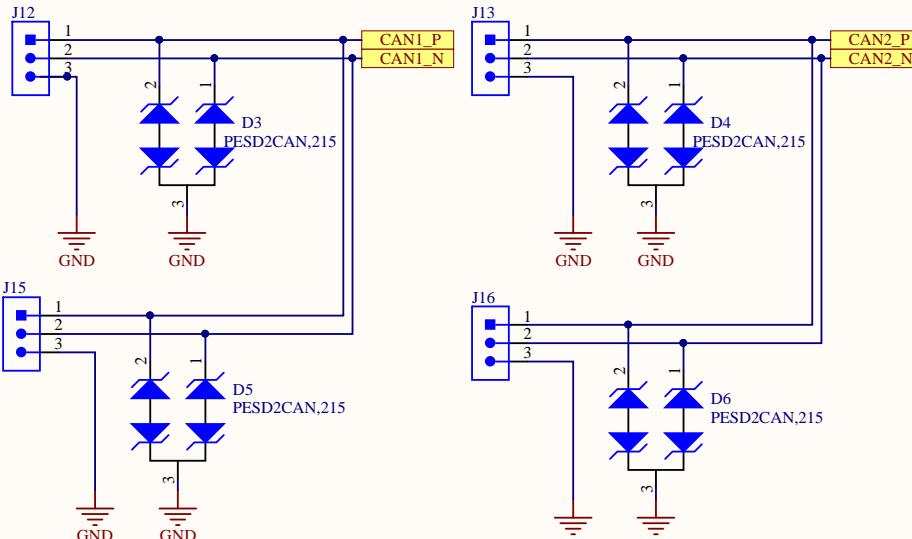
## Sensors



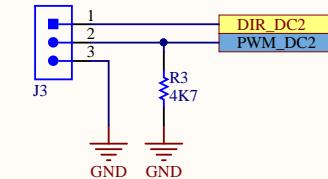
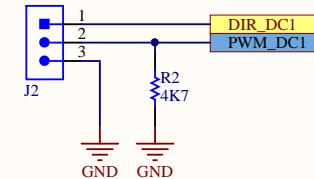
## Limit Switches



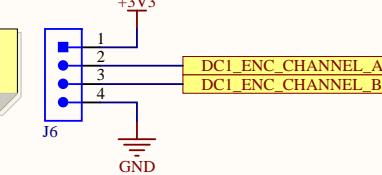
## CAN Connectors



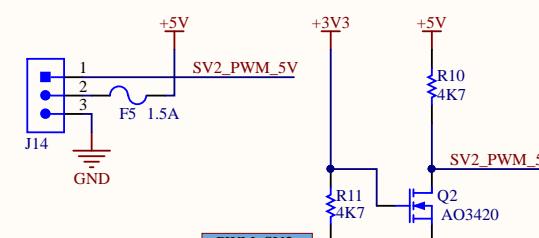
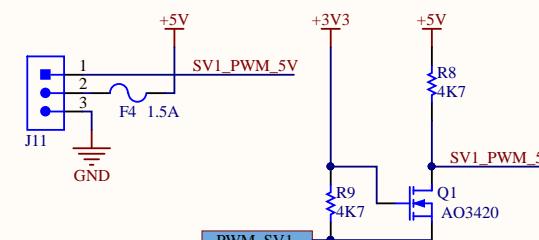
## DC Motors

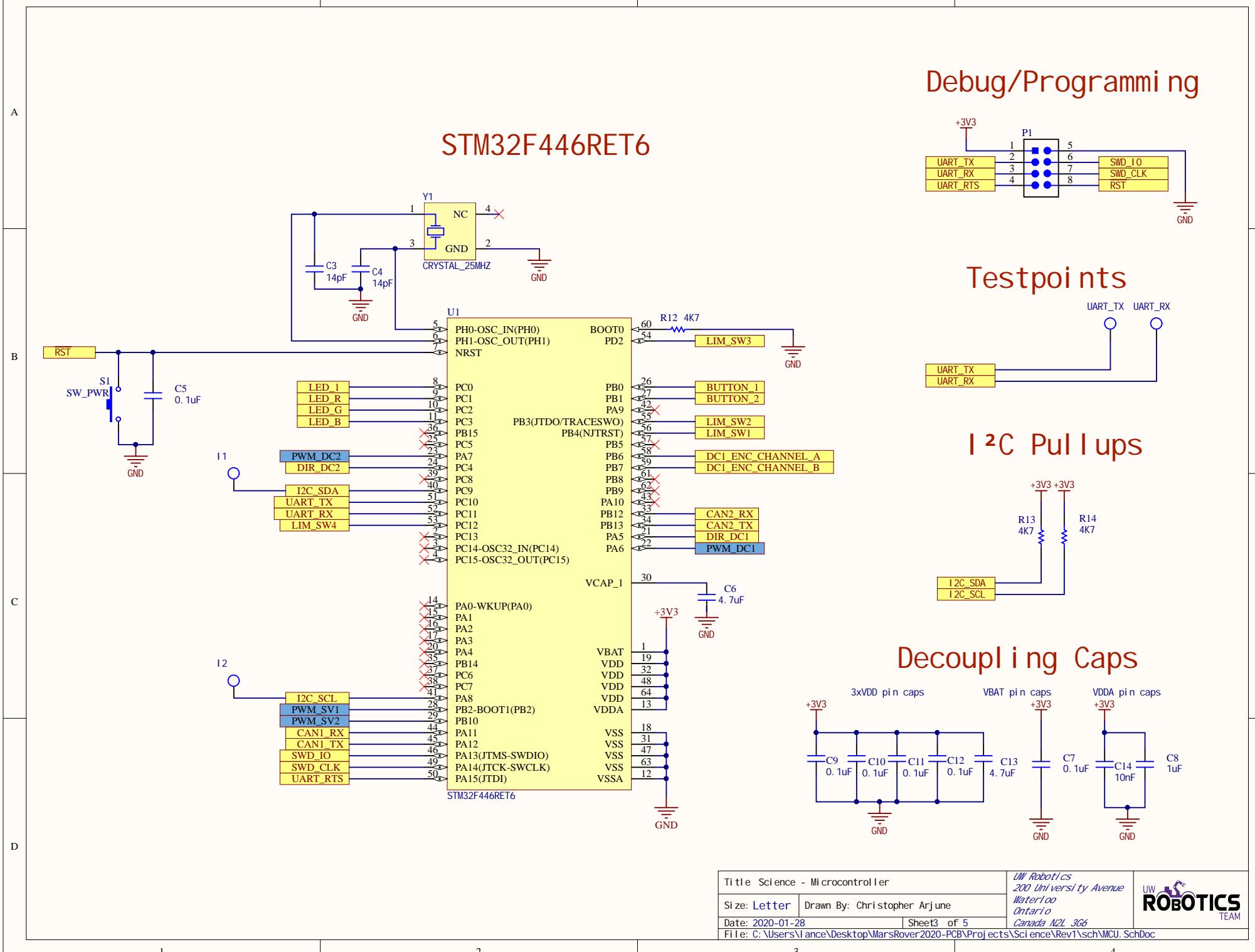


**TODO (Rev2):**  
- Add an RC filter for this encoder



## Servos





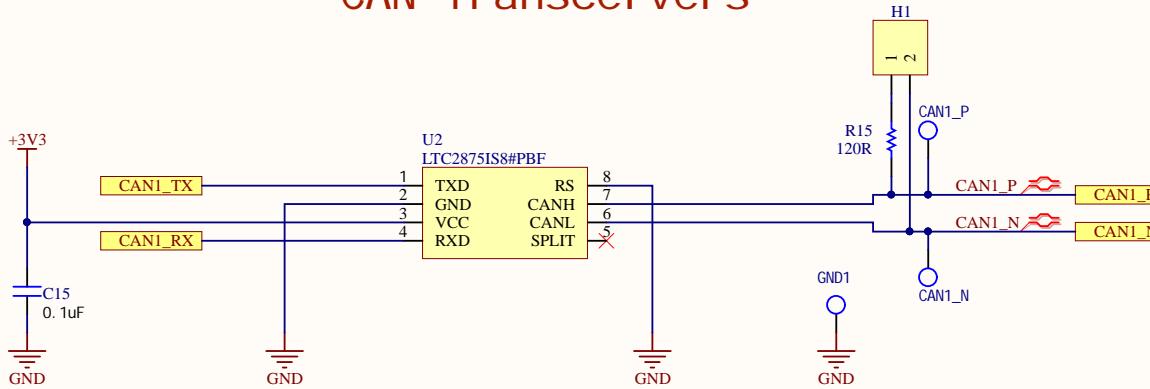
A

A

## CAN Transceivers

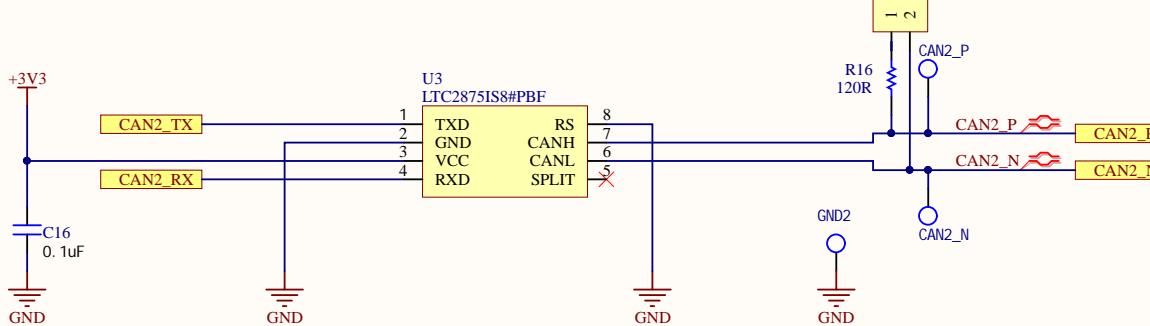
B

B



C

C



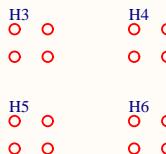
D

D

Title: Science - CAN		UW Robotics 200 University Avenue Waterloo Ontario Canada N2L 3G6	<b>UW ROBOTICS</b> TEAM
Size: Letter		Drawn By: Christopher Arjune	
Date: 2020-01-28		Sheet 4 of 5	
File: C:\Users\lance\Desktop\MarsRover2020-PCB\Projects\Science\Rev1\sch\CAN.SchDoc			

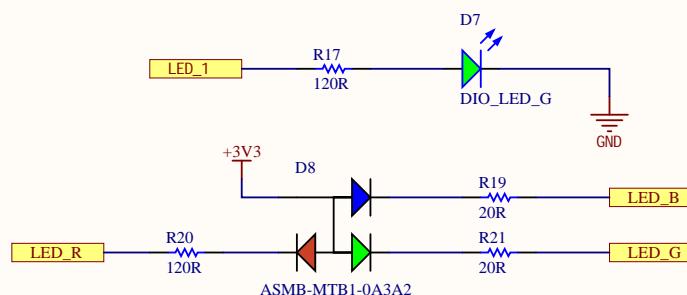
A

## Mounting Holes



B

## Test LEDs



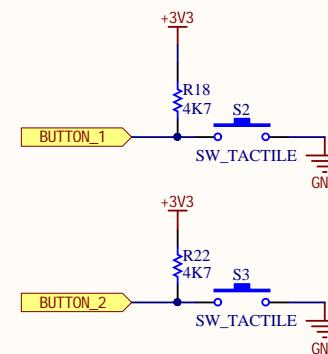
C

### Current Calculations

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

RGB LED voltage drops:  
 - Red: 2.1V:  $I = (3.3-2.1V)/120 = 10mA$   
 - Blue: 3.1V:  $I = (3.3-3.1V)/20 = 10mA$   
 - Green: 3.1V:  $I = (3.3-3.1V)/20 = 10mA$

## Test Buttons



D

