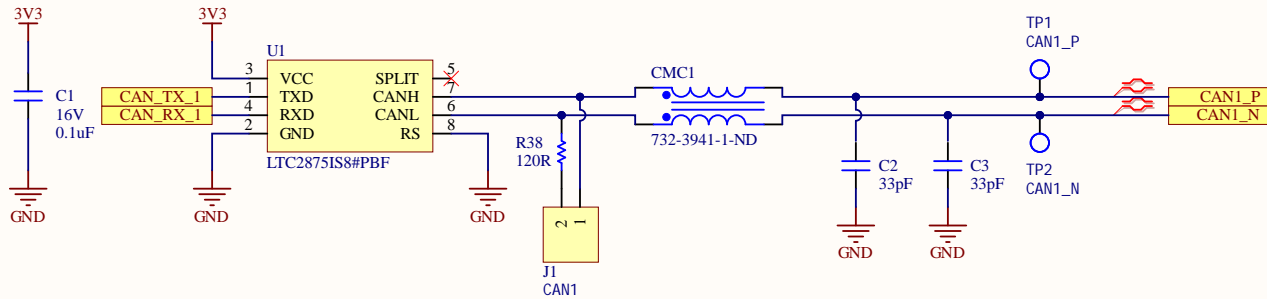
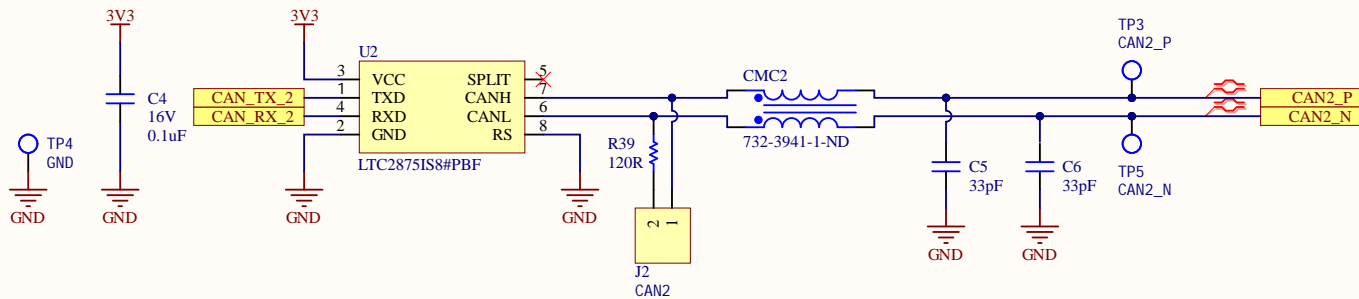
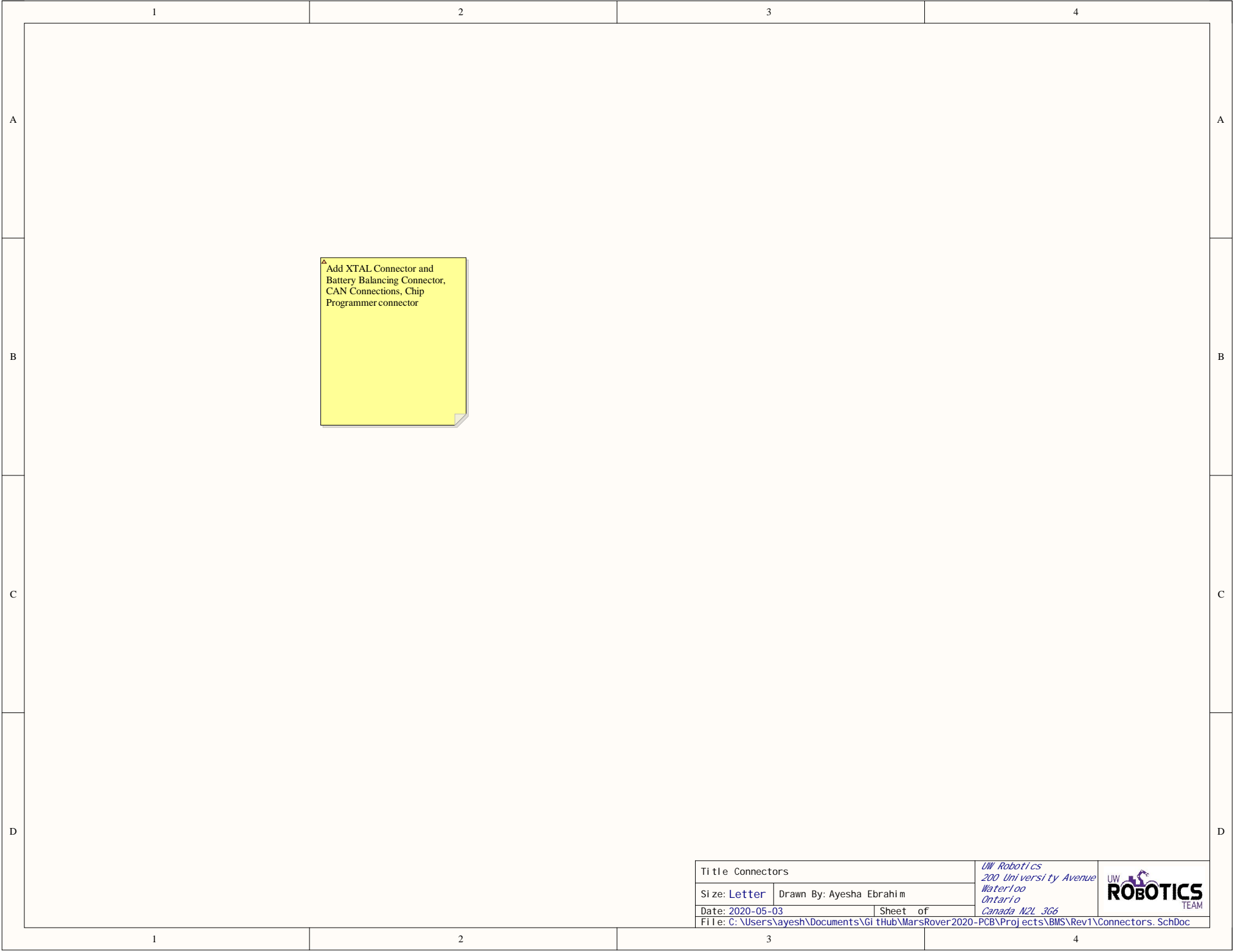


## CAN 1

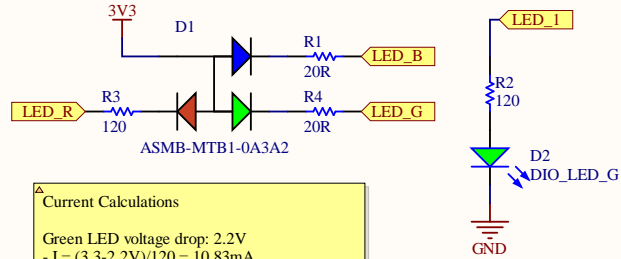


## CAN 2





## Test LEDs



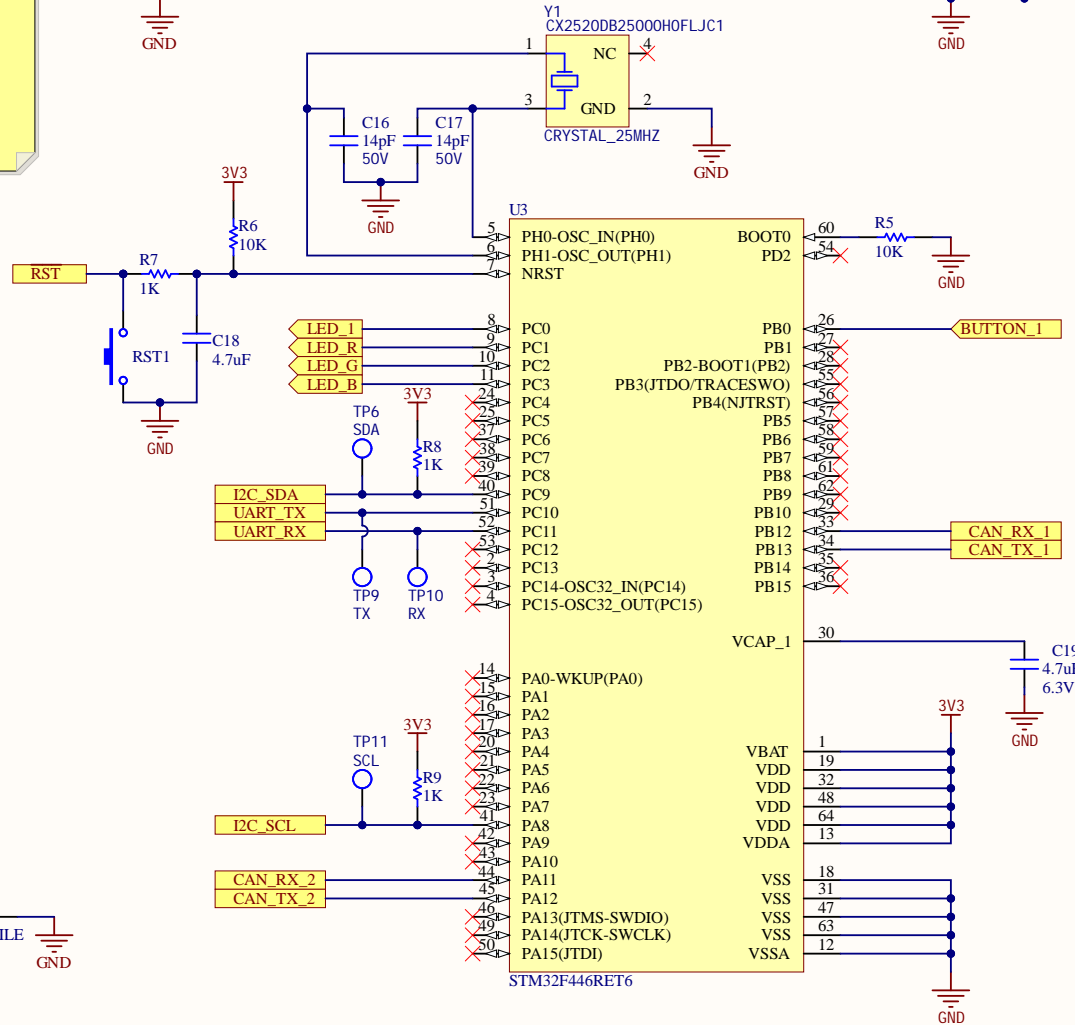
### Current Calculations

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

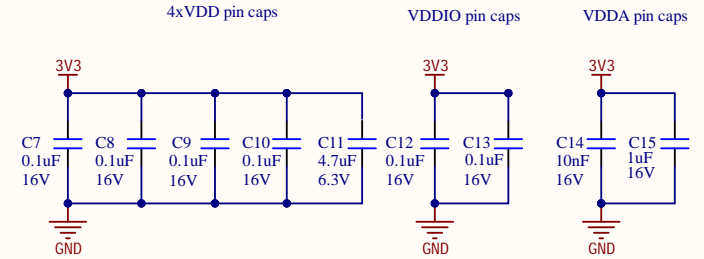
### RGB LED voltage drops:

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

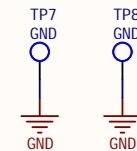
## STM32F446RET6



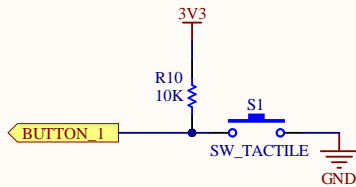
## Decoupling Caps



## GND Test Points



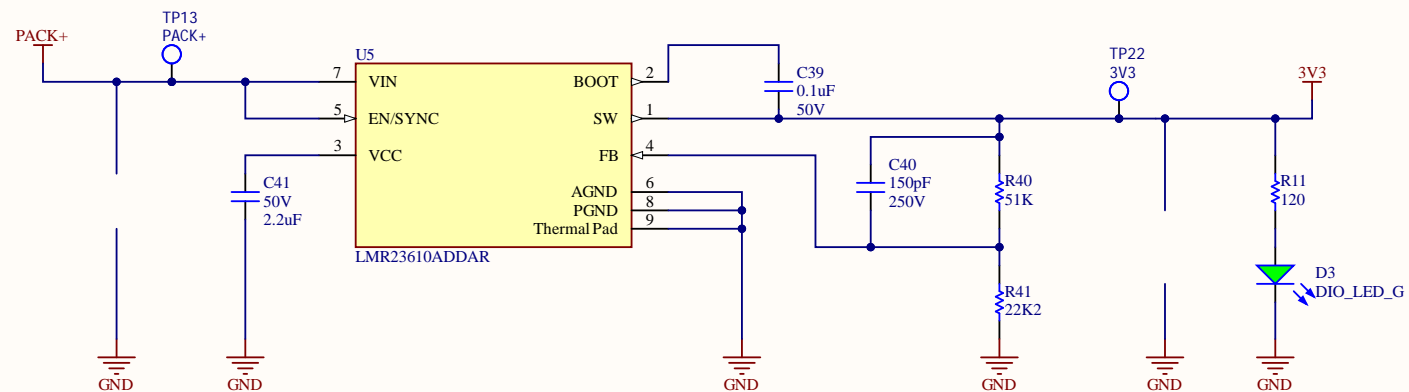
## Test Button



Title	MCU	*
Size:	Letter	Drawn By: Ayesha Ebrahi m
Date:	2020-05-03	Sheet* of *
File:	C:\Users\ayesh\Documents\GitHub\MarsRover2020-PCB\Projects\BMS\Rev1\MCU_SchDoc	

## Pack Voltage to 3V3 Buck @ 1A Max

PACK+ is the battery voltage controlled by the battery manager  
 PACK+ max = 25.2V  
 PACK+ min = 18V (assuming no cells fall below 3V)



Add Caps and inductor

### Current Calculations

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

Title	Power	*
Size: Letter	Drawn By: Ayesha Ebrahim	*
Date: 2020-05-03	Sheet* of *	*
File: C:\Users\ayesh\Documents\GitHub\MarsRover2020-PCB\Projects\BMS\Rev1\Power.SchDoc		