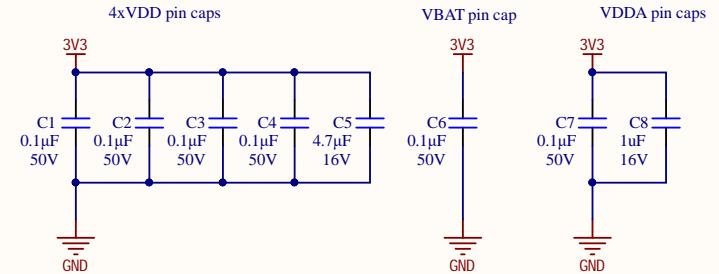
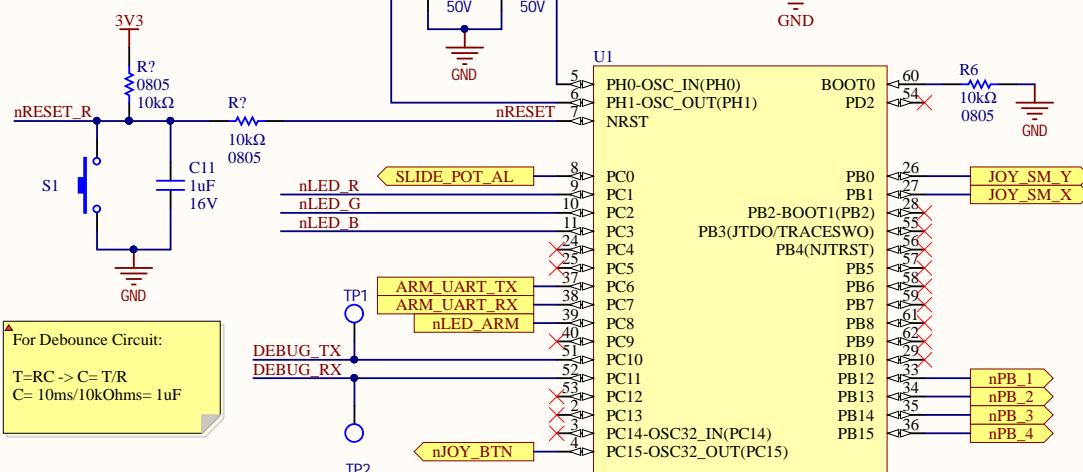


- RGB LED voltage drops:
 - Red: 2.1V; $I = (3.3 - 2.1V) / 100 = 12mA$
 - Blue: 3.1V; $I = (3.3 - 3.1V) / 20 = 10mA$
 - Green: 3.1V; $I = (3.3 - 3.1V) / 20 = 10mA$

Decoupling Caps

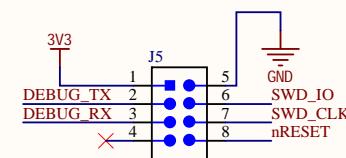


Reset Button



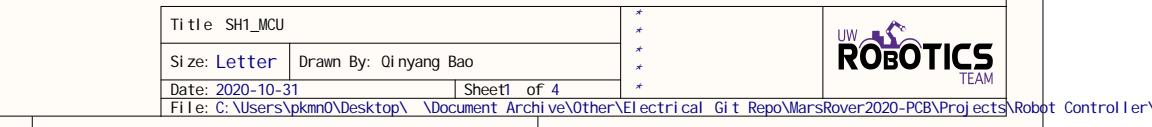
For Debounce Circuit:

Debug/Programming

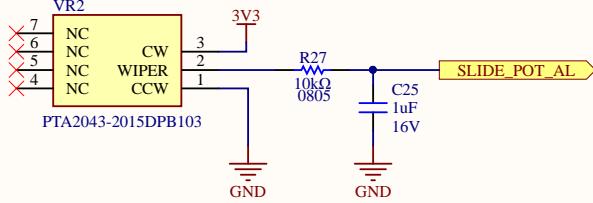


Pin	Function
PA0	WKUP(PA0)
PA1	
PA2	
PA3	
PA4	X
PA5	
PA6	
PA7	
PA8	X
PA9	
PA10	
PA11	
PA12	
PA13	JTMS-SW
PA14	JTCK-SW
PA15	JTDD

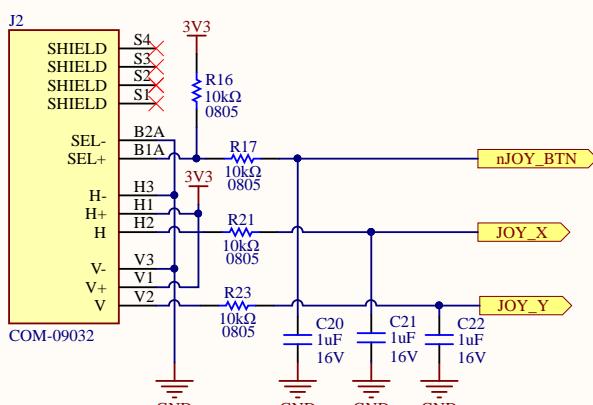
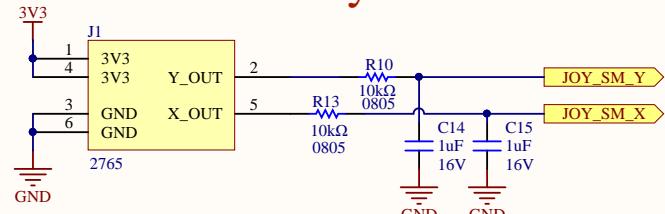
Legend: Blue circle = Pin connected; Red X = Pin not connected.



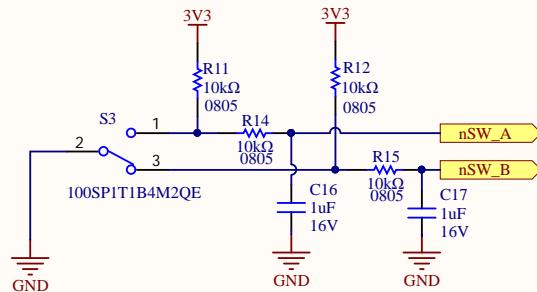
Slide Potentiometer



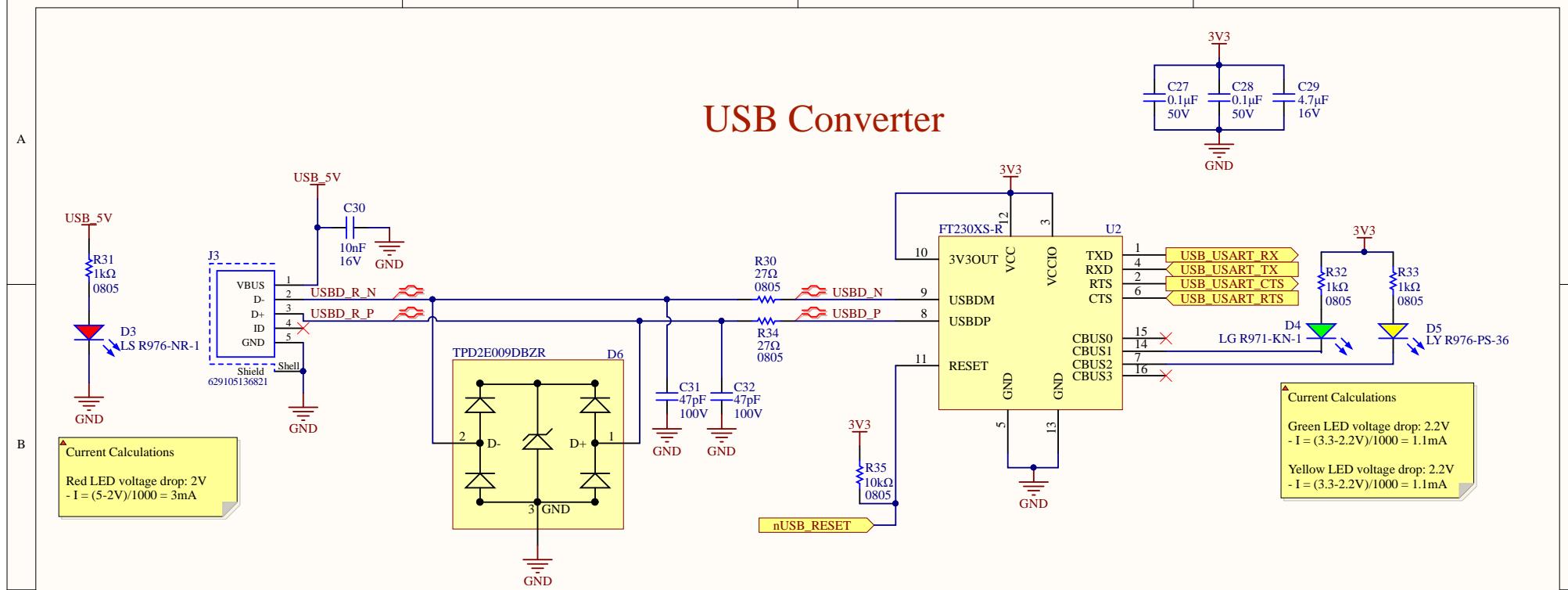
2-Axis Joysticks



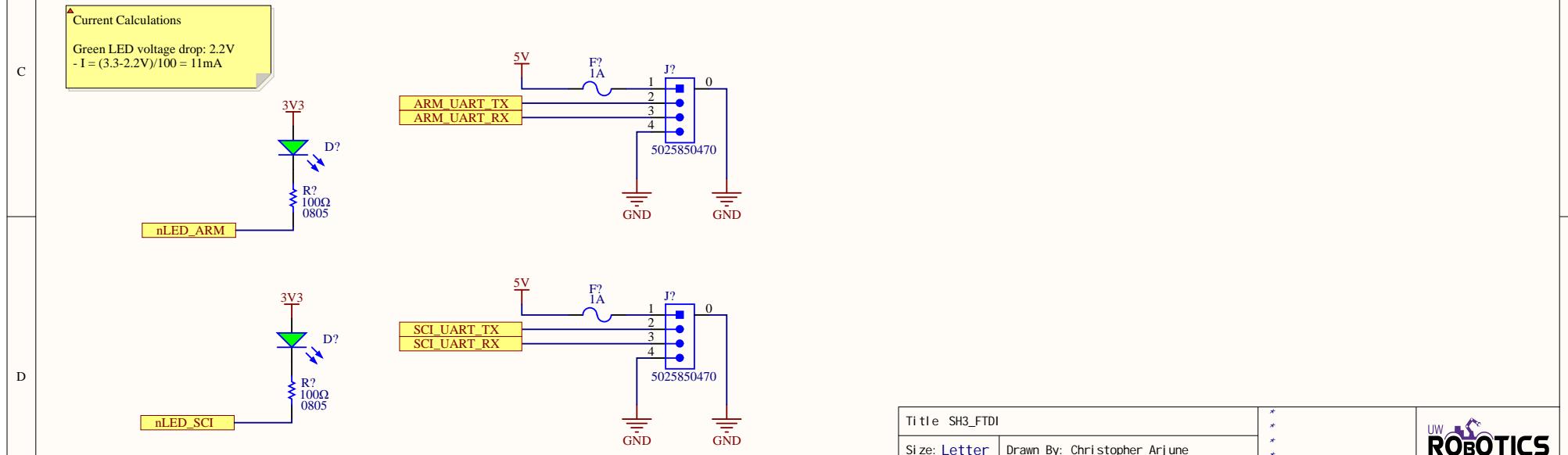
SPDT Switch



USB Converter



UART Connectors



A

A

B

B

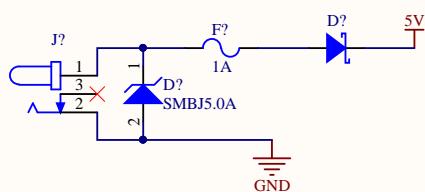
C

C

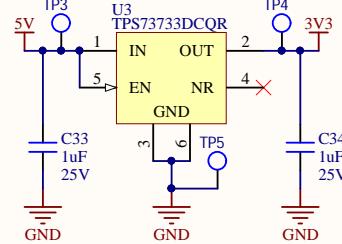
D

D

Power In



5V to 3V3 LDO



Current Calculations

Green LED voltage drop: 2.2V
 $I = (3.3 - 2.2V) / 120 = 9mA$

Title: SH4-POWER

Size: Letter | Drawn By: Christopher Arjune

Date: 2020-10-31 | Sheet 4 of 4

File: C:\Users\pkmn0\Desktop\Document Archive\Other\Electrical Git Repo\MarsRover2020-PCB\Projects\Robot Controller\

