

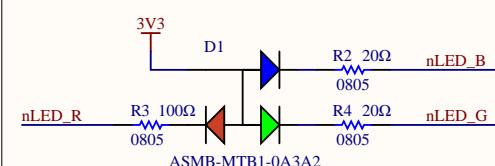
1

2

3

4

Test LEDs

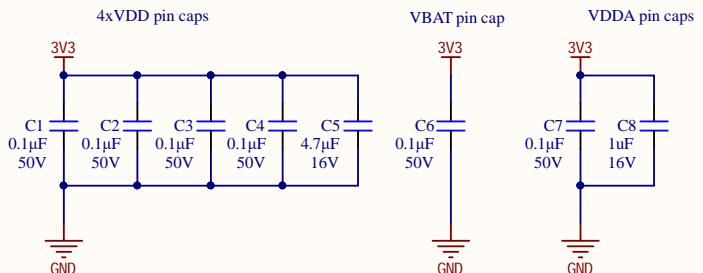


Current Calculations

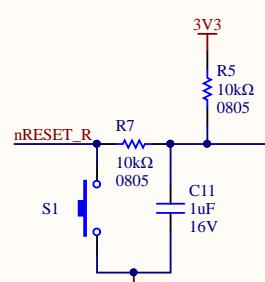
Green LED voltage drop: 2.2V
 $I = (3.3-2.2V)/100 = 11mA$

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

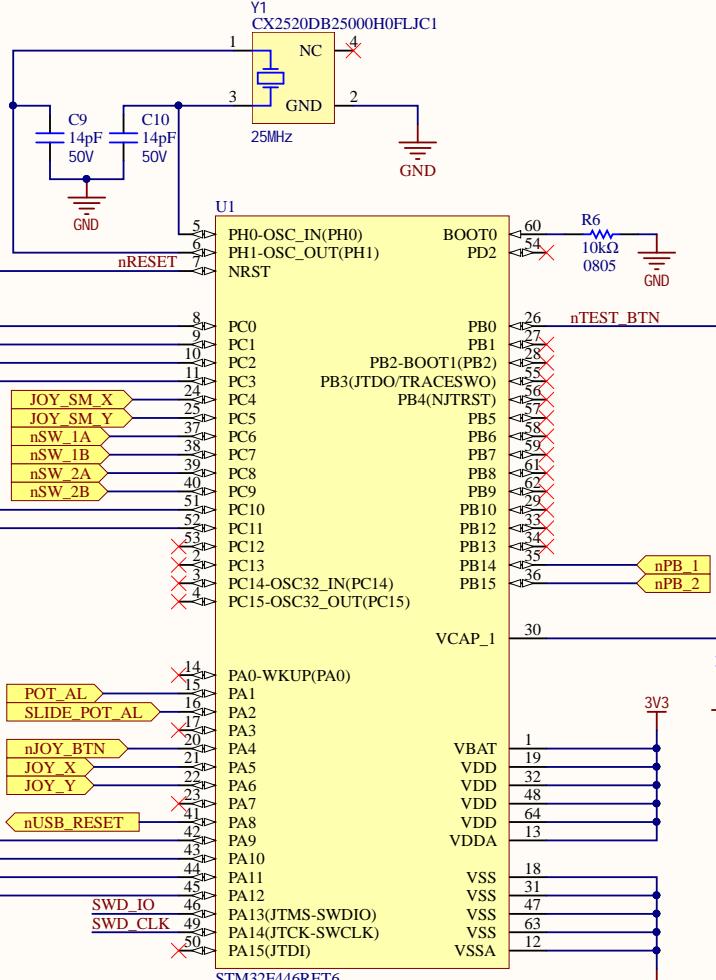


Reset Button

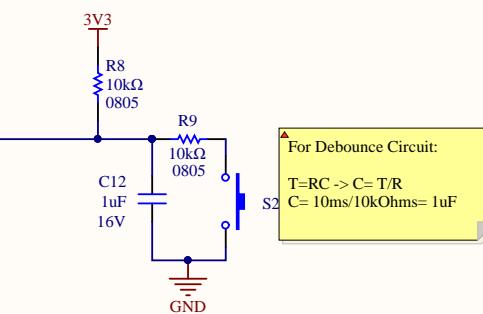


For Debounce Circuit:
 $T=RC \rightarrow C=T/R$
 $C=10ms/10kOhms=1uF$

STM32F446RET6

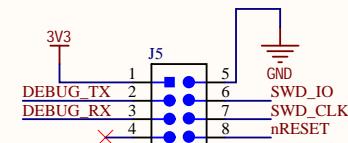


Test Button



For Debounce Circuit:
 $T=RC \rightarrow C=T/R$
 $C=10ms/10kOhms=1uF$

Debug/Programming



Title: SH1 MCU

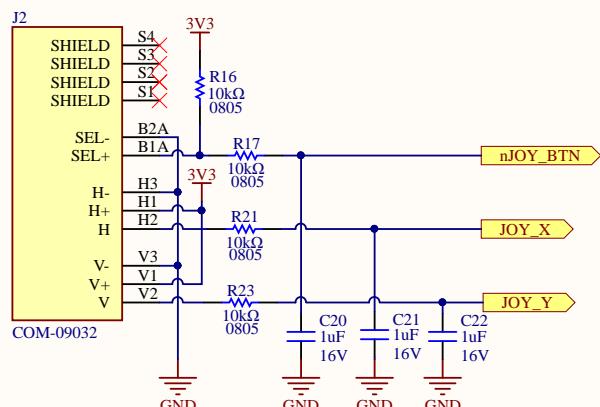
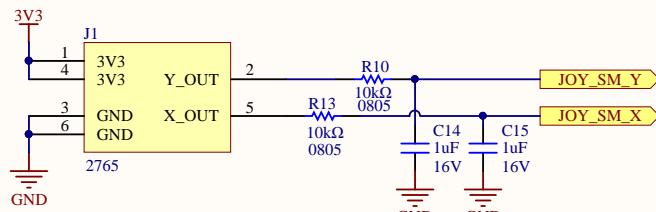
Size: Letter Drawn By: Qi nyang Bao

Date: 2020-06-22

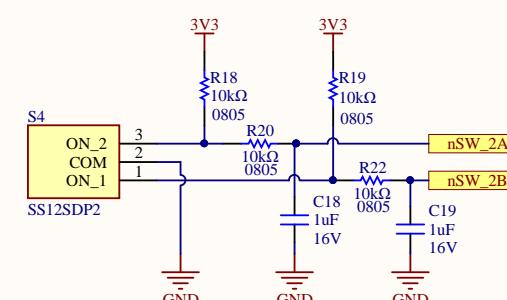
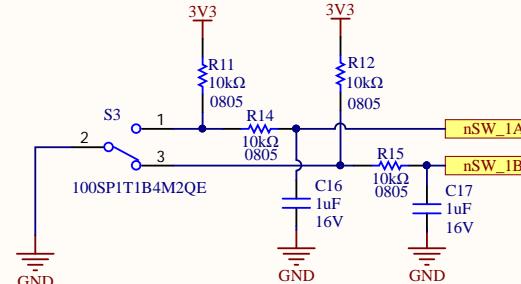
Sheet1 of 4

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2-Axis Joysticks

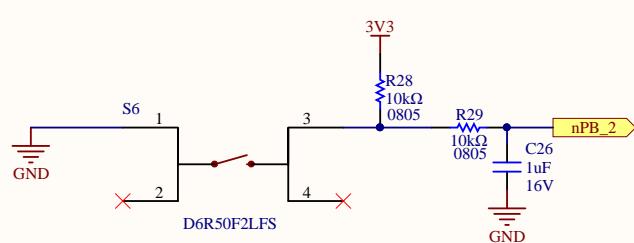
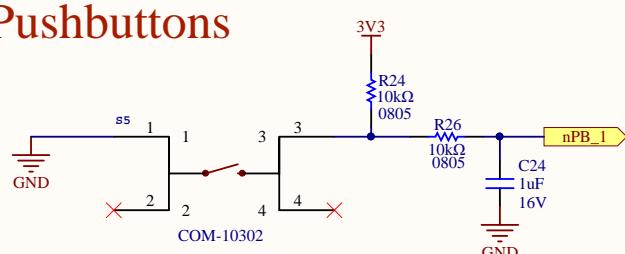


SPDT Switches

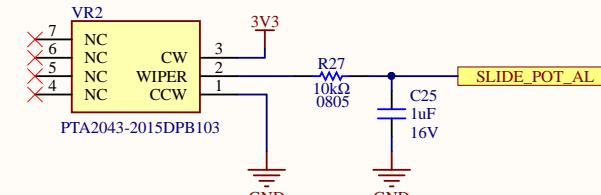
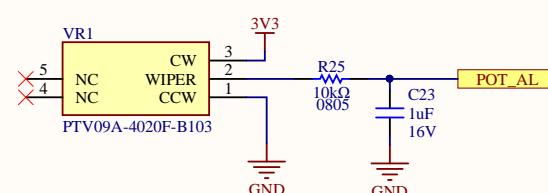


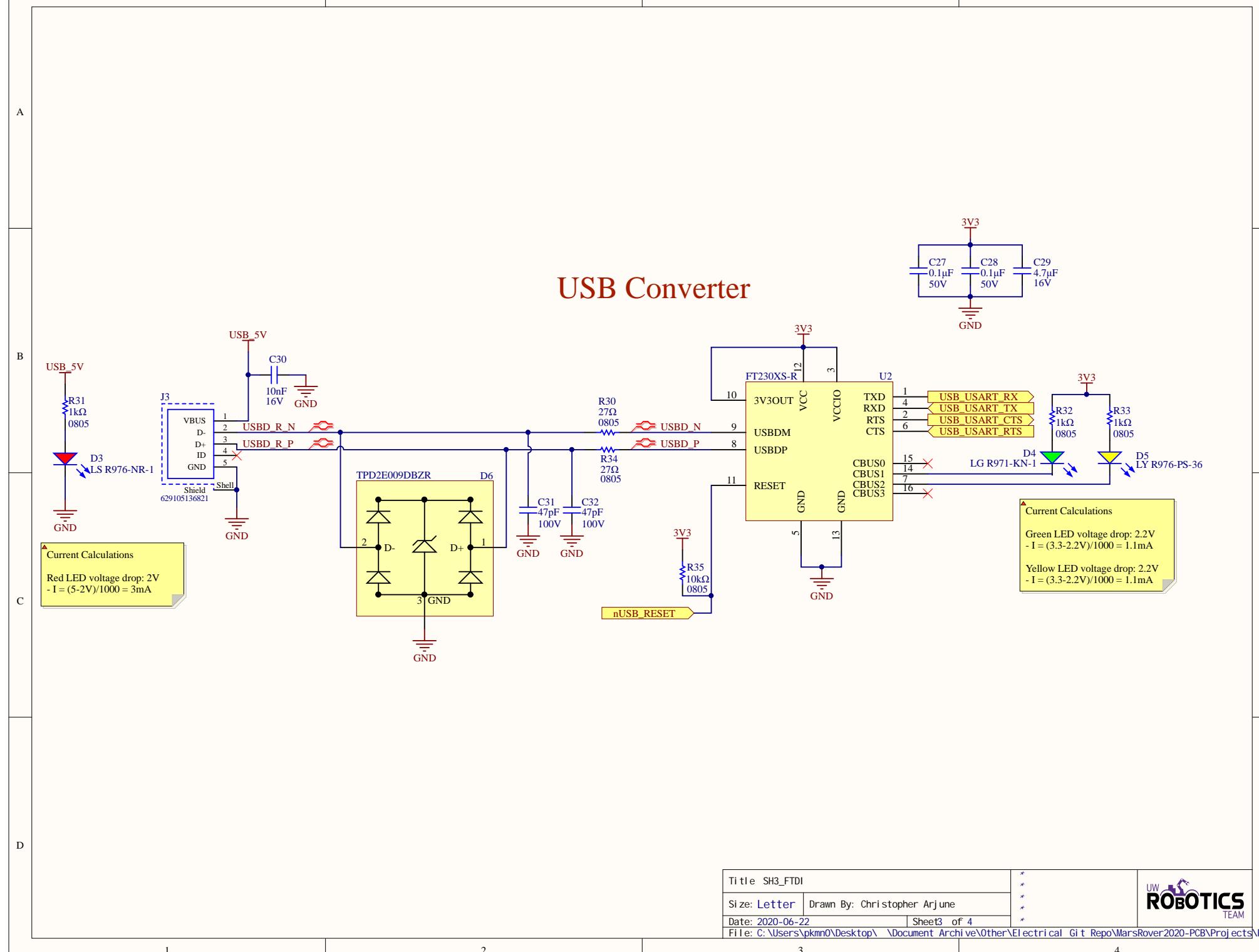
Pushbuttons

For Debounce Circuits:
T=RC -> C= T/R
C= 10ms/10kOhms= 1uF



Potentiometers





A

A

B

B

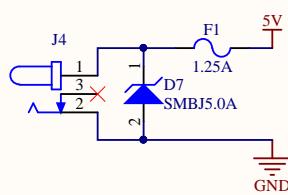
C

C

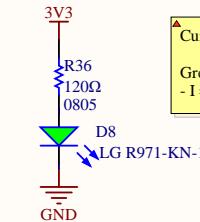
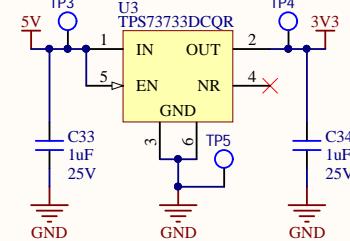
D

D

Power In



5V to 3V3 LDO



Title SH4-POWER

Size: Letter | Drawn By: Christopher Arjune

Date: 2020-06-22

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