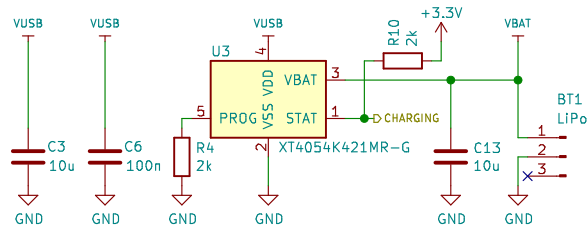


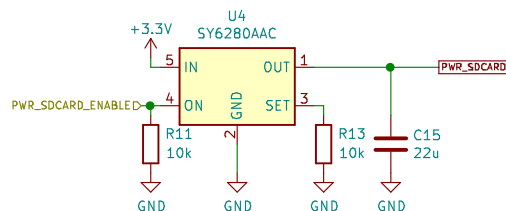
Battery & battery charger



CHARGING is an open-drain output that gets pulled low when the charger is active (charging the battery)

Switched power: 3.3v for SDCARD

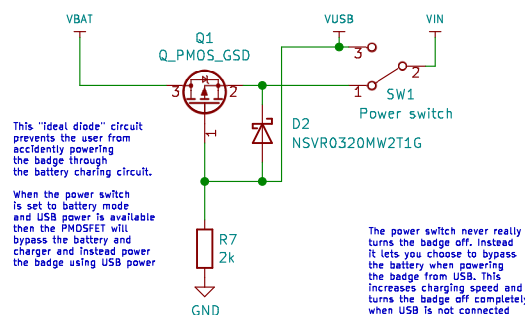
$I_{set} = 0.68A = 6800 / 10k\Omega$



Note:

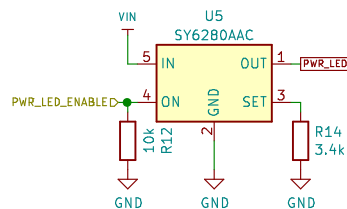
All control signals are hierarchical labels while all power rails are global

Power switch

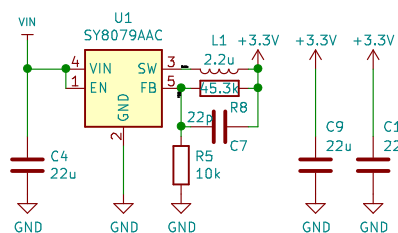


Switched power: Vin for LEDs

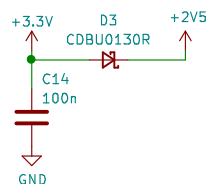
$I_{set} = 2A = 6800 / 3.4k\Omega$



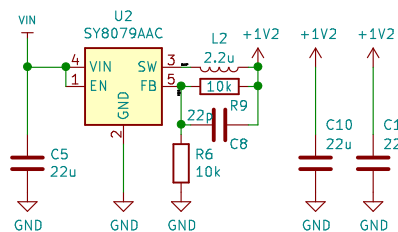
3.3v voltage regulator



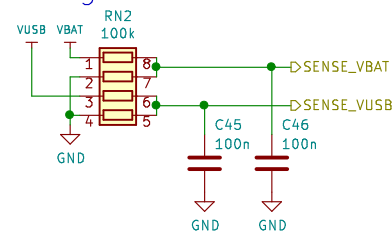
2.5v voltage regulator



1.2v voltage regulator



Voltage sensing



BADGE.TEAM

Sheet: /POWER/

File: power.sch

Title: MCH2021 badge – Power management

Size: A4

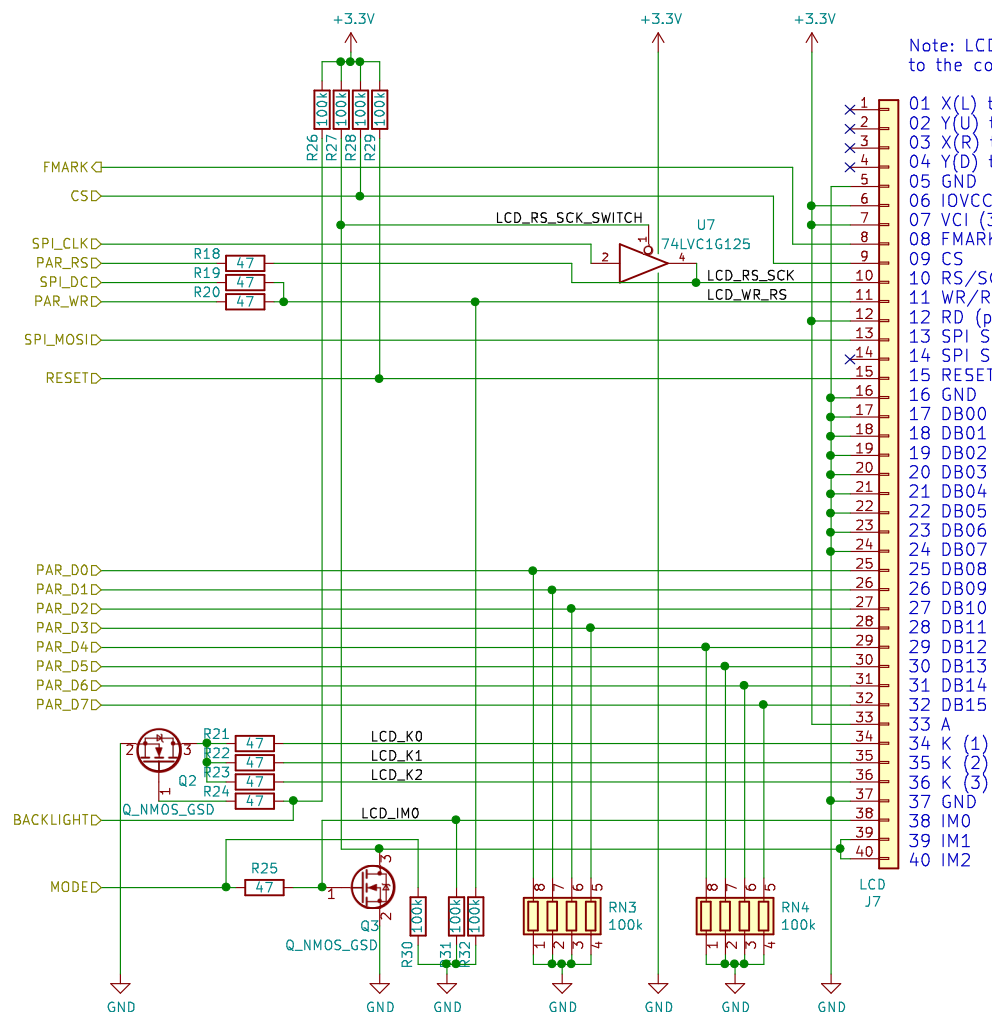
Date: 2020-08-08

Rev: 1

KiCad E.D.A. kicad 5.1.6

Id: 2/9

LCD
Type: Z240IT008
Controller: ILI9341
Size: 2.4 inch



SPI: IM0 = 0, IM1 = 1, IM2 = 1
PAR: IM0 = 1, IM1 = 0, IM2 = 0

BADGE.TEAM

Sheet: /LCD/

File: lcd.sch

Title: MCH2021 badge – LCD

Size: A4

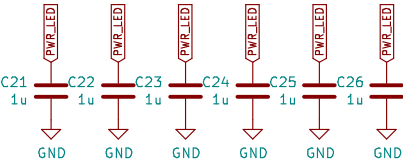
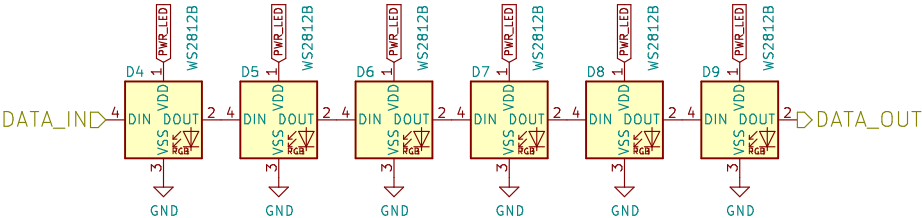
Date: 2020-08-09

KiCad E.D.A. kicad 5.1.6

Rev: 1

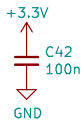
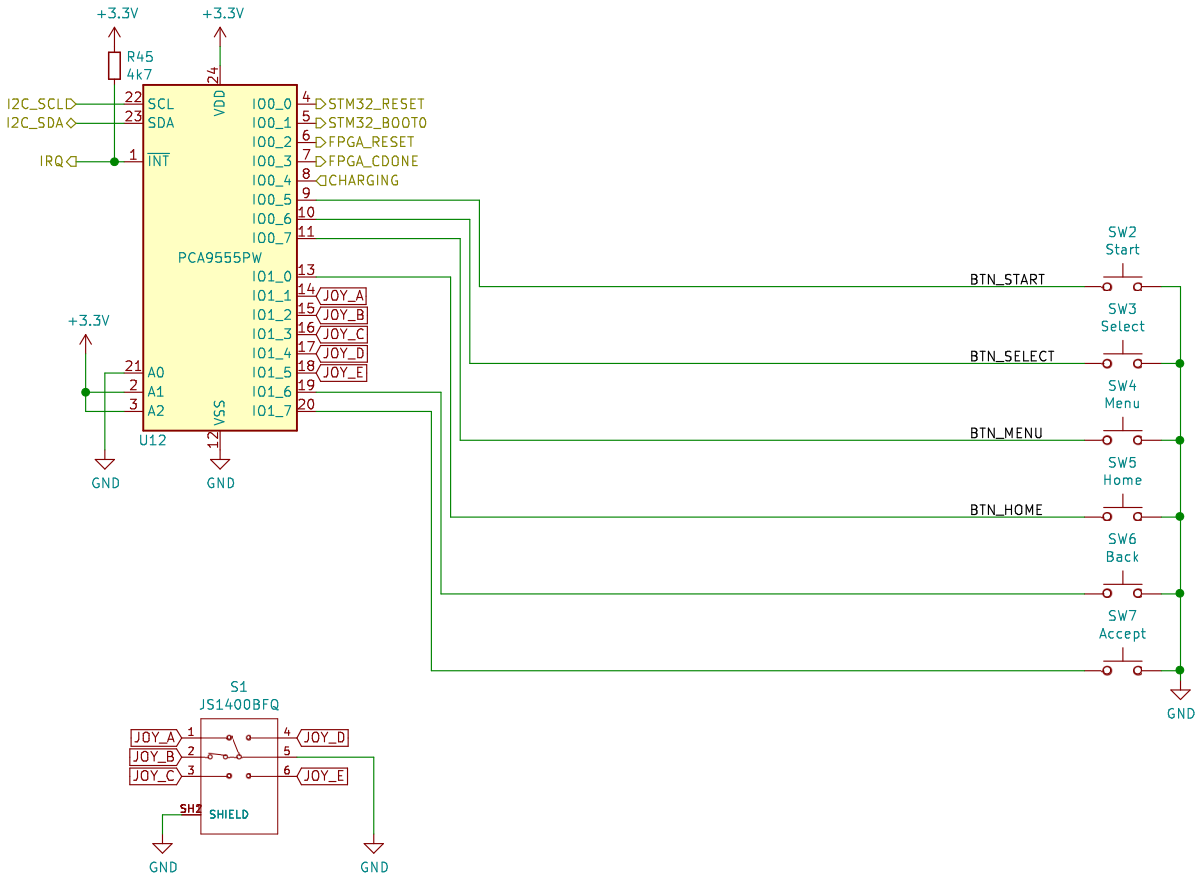
Id: 3/9

WS2812B LEDs



Sheet: /LED/		
File: led.sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad 5.1.6		Id: 4/9

MPR121 touch button interface



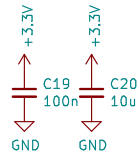
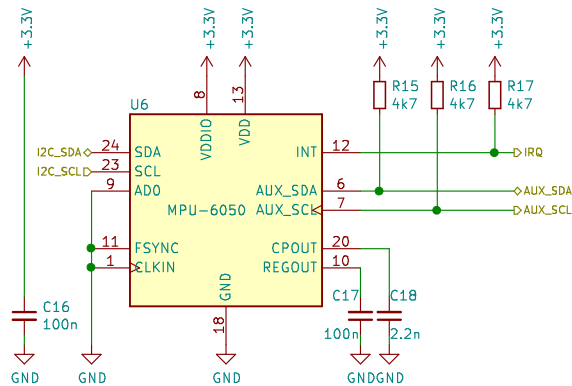
Sheet: /BUTTONS/
File: buttons.sch

Title:

Size: A4	Date:
KiCad E.D.A.	kiCad 5.1.6

Rev: 1.0
Id: 7/9

MPU6050 accelerometer and gyroscope



A



A

E



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- 1

