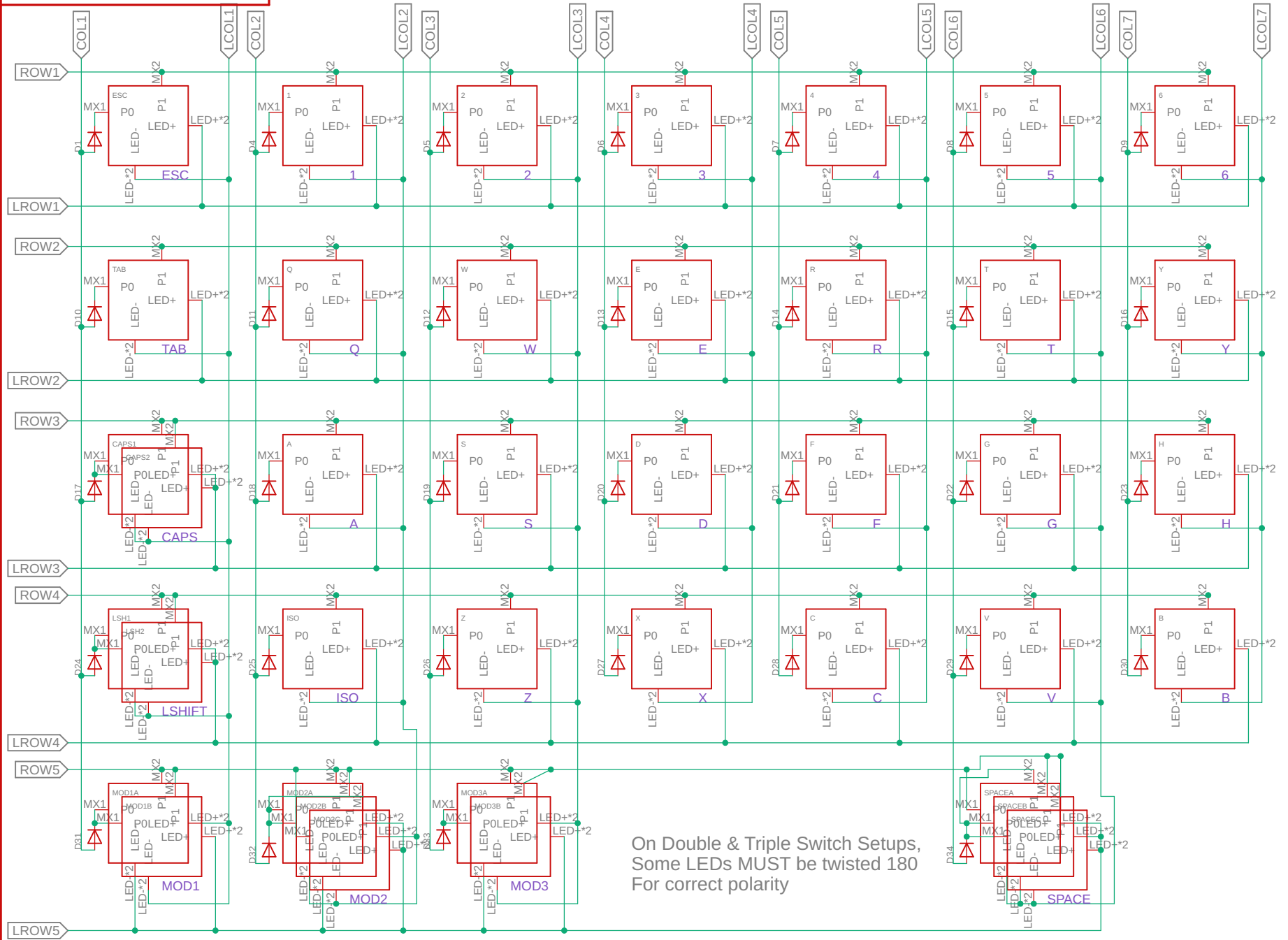
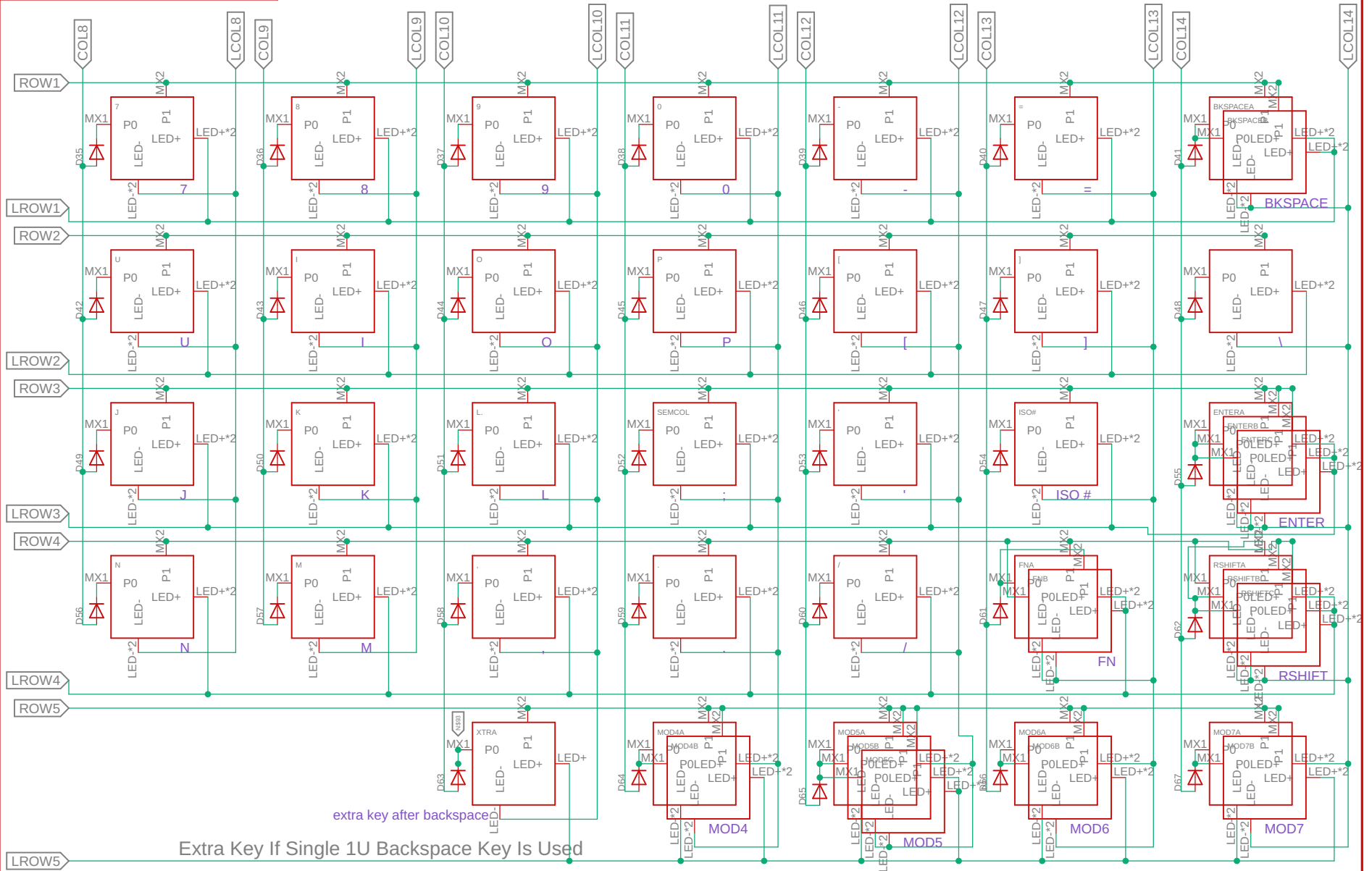


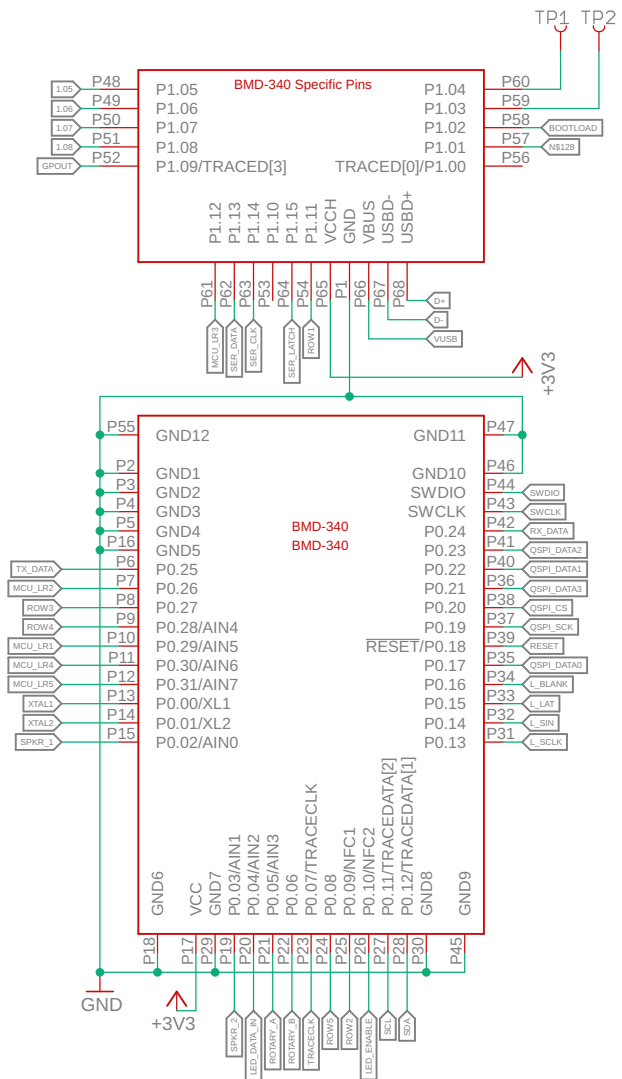
Keyboard Matrix Left Half



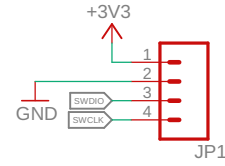
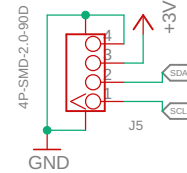
Keyboard Matrix Right Half



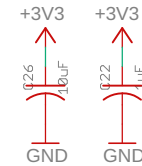
Microcontroller Section



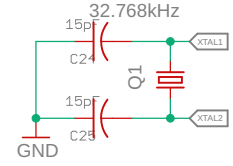
SeeedStudio Grove Connector Pins Configurable in MCU



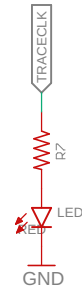
Near MCU Decoupling



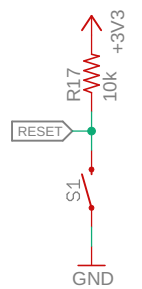
RTC XTAL



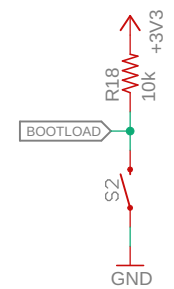
User LED



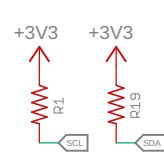
RESET



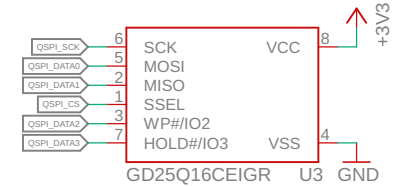
BOOTLOADER / USER BUTTON



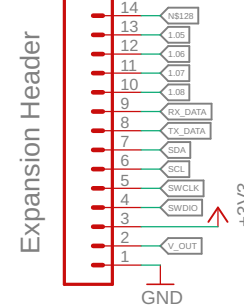
I2C PullUps



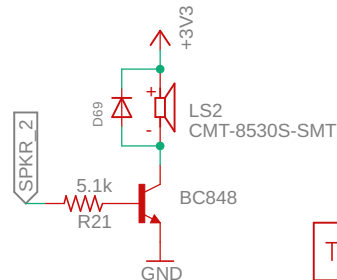
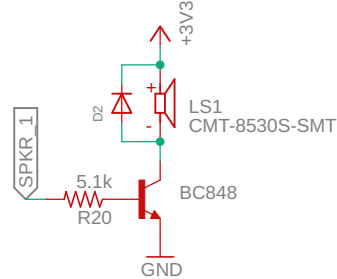
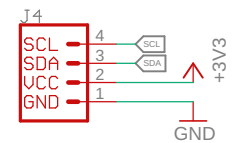
QSPI Flash



EXPANSION



SparkFun QIIC Connector



TITLE: lost60U3

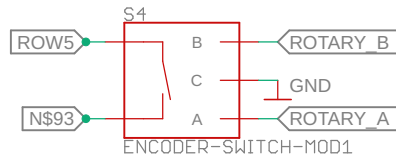
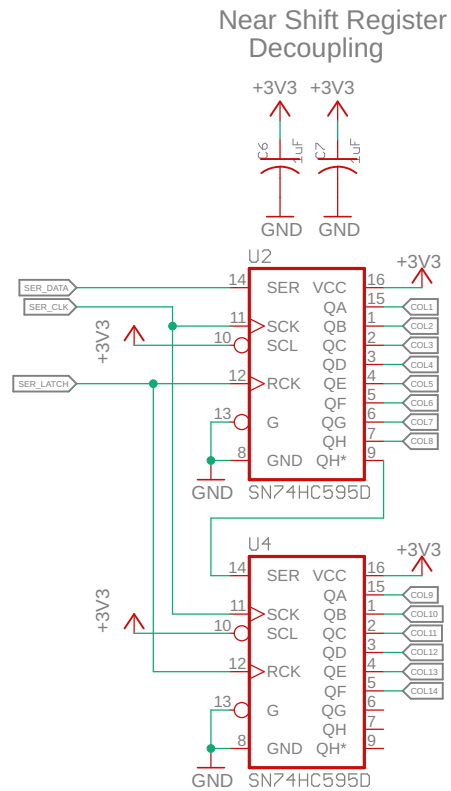
Design by: COYT BARRINGER

REV:

Date: 4/19/2020 5:39 PM

Sheet: 3/8

Shift Registers & MISC



Worst case low power:
System ON Mode, full RAM retention =
2.35uA

All unused I/O broken out to test pads
for testing, other uses, etc...

TITLE: lost60U3

Design by: COYT BARRINGER

REV:

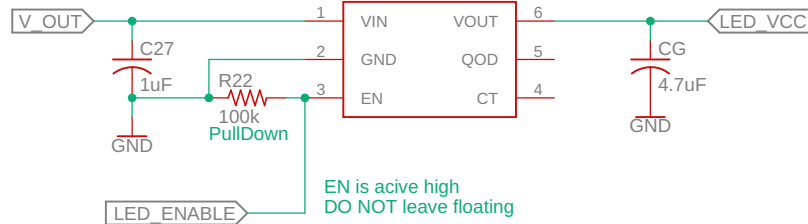
Date: 4/19/2020 5:39 PM

Sheet: 4/8

RGB LED BackLighting

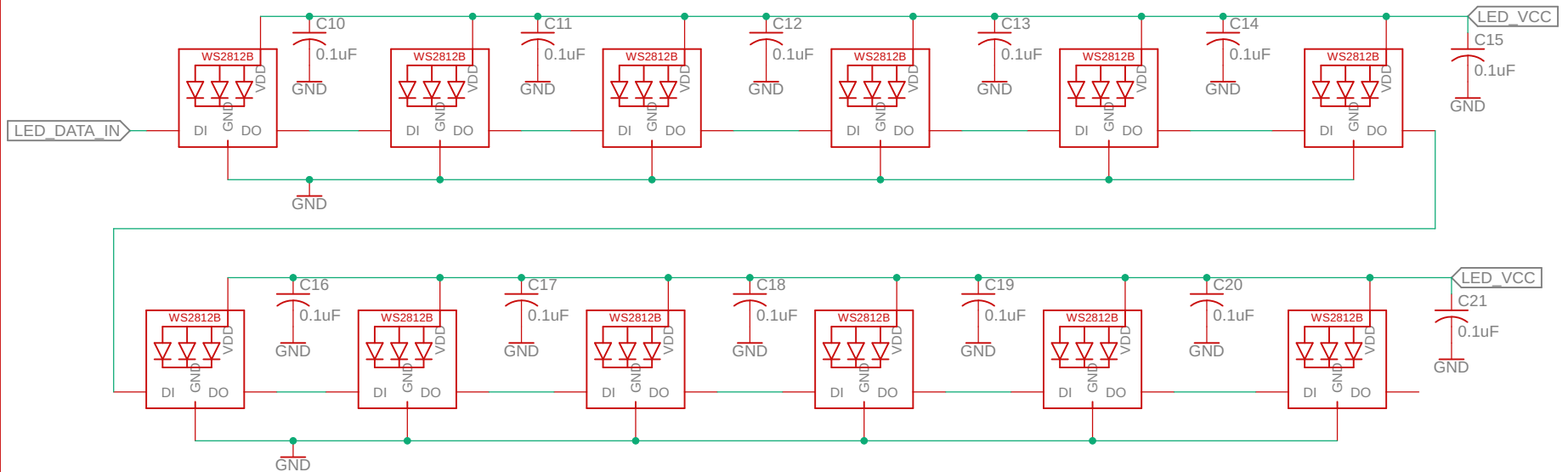
LED Load Switch needed to protect battery

U\$22
TPS22810*



Shutdown Current @ VIN = 3.3V: 3.8uA

Individually Addressable RGB Backlight LEDs



Mounting Holes



USE SK6812 LEDS in 3535 package
Digitally Compatible w/ WS2812B's

Running directly off LiPo
They'll cut off at 3.5VDC
(But no LVL conversion needed for digital)

TITLE: lost60U3

Design by: COYT BARRINGER

REV:

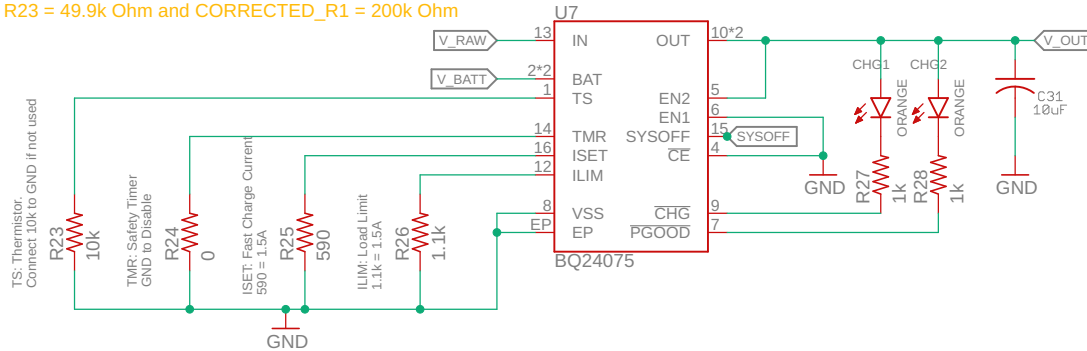
Date: 4/19/2020 5:39 PM

Sheet: 5/8

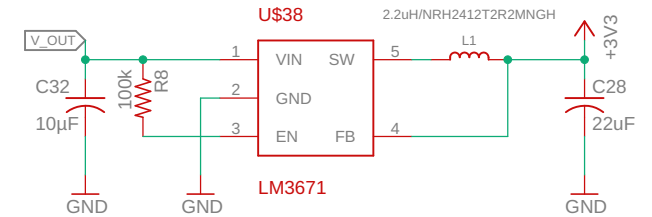
Battery & Power Handling

Lithium Battery Charger & PowerPath Management

Connect an actual voltage divider here
R23 = 49.9k Ohm and CORRECTED_R1 = 200k Ohm

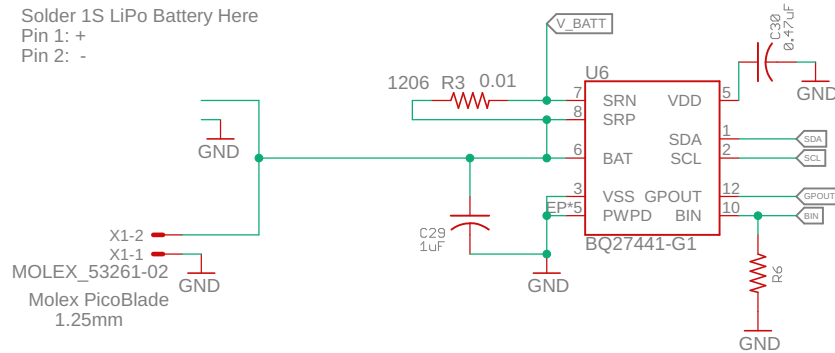


Main Voltage Regulator

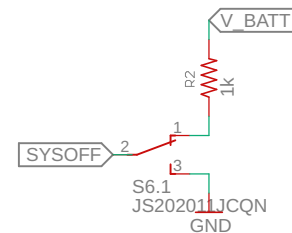
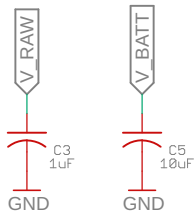


BATTERY MUST HAVE BUILT IN PROTECTION

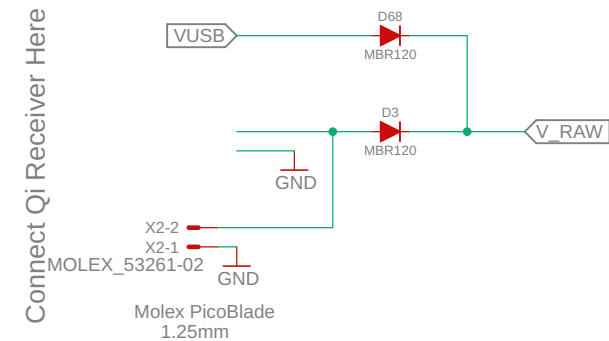
Solder 1S LiPo Battery Here
Pin 1: +
Pin 2: -



X1-2
X1-1
MOLEX_53261-02
Molex PicoBlade
1.25mm



External Power Source Combination



Connect Qi Receiver Here

TITLE: lost60U3

Design by: COYT BARRINGER

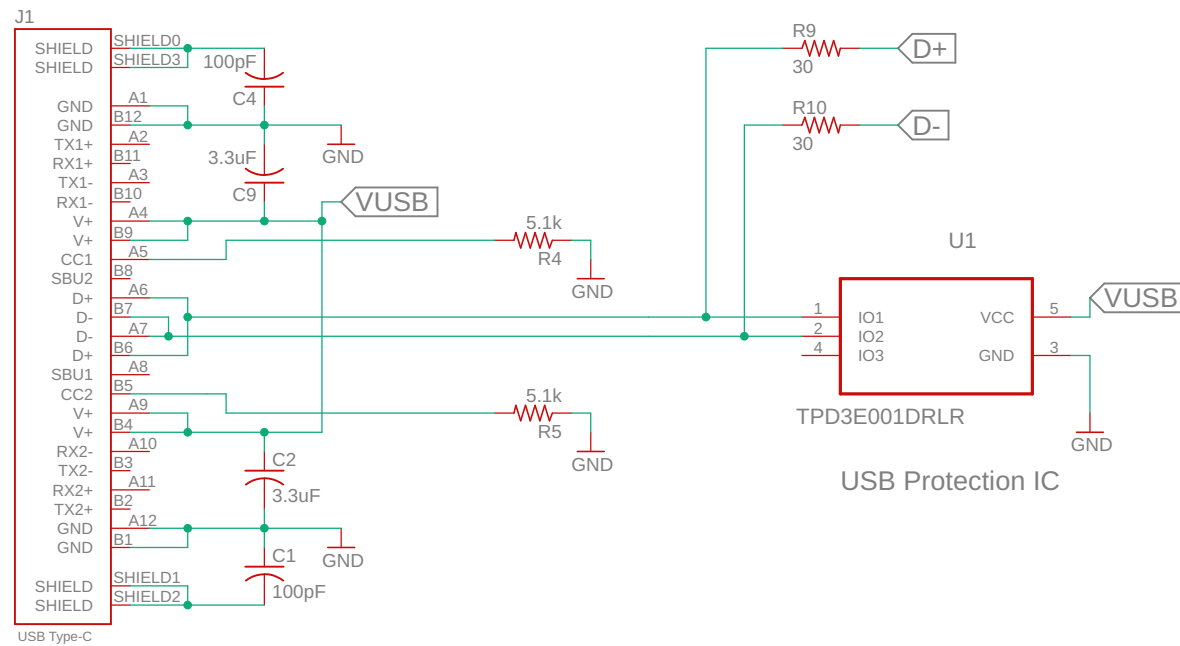
REV:

Date: 4/19/2020 5:39 PM

Sheet: 6/8

USB C Interface

Connector:
JAE DX07S024JJ2R1300



See "Tristan Robitaille" website for interface details

TITLE: lost60U3

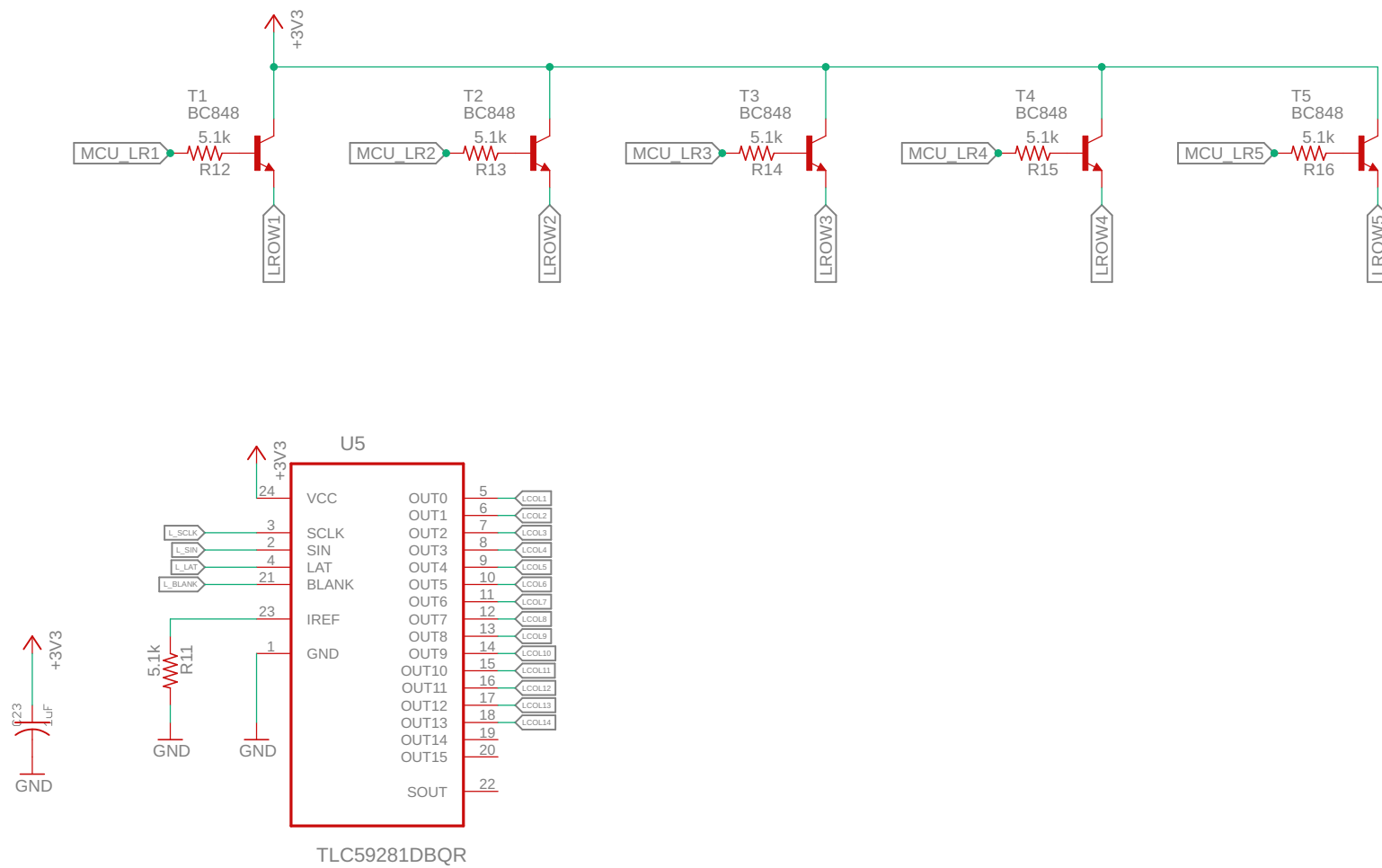
Design by: COYT BARRINGER

REV:

Date: 4/19/2020 5:39 PM

Sheet: 7/8

LED Backlight Driver



TITLE: lost60V3

Design by: COYT BARRINGER

REV:

Date: 4/19/2020 5:39 PM

Sheet: 8/8