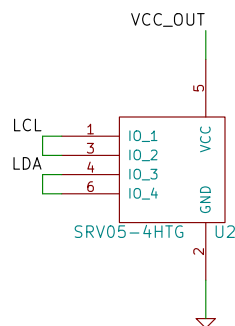


Inter-hand connection



Rev:
Id: 2/7

[illegible]

The image shows two pin connection diagrams for headers on a PCB. The top diagram is for the 'ICSP DNP' header, and the bottom diagram is for the 'LEFT_KEYSCANNER-ICSP TEST' header. Both diagrams show a 6-pin header with pins numbered 1 to 6. The connections are as follows:

- ICSP DNP Header:**
 - Pin 1: LIO_CIOI
 - Pin 2: 5V_SWITCHED
 - Pin 3: LIO_SCK
 - Pin 4: LIO_CIOI
 - Pin 5: LEFT_NRESET
 - Pin 6: ICSP DNP
- LEFT_KEYSCANNER-ICSP TEST Header:**
 - Pin 1: LIO_CIOI
 - Pin 2: 5V_SWITCHED
 - Pin 3: LIO_SCK
 - Pin 4: LIO_CIOI
 - Pin 5: LEFT_NRESET
 - Pin 6: LEFT_KEYSCANNER-ICSP TEST

Keyboardio	
Sheet: /KeyScanner/	
File: KeyScanner.kicad_sch	
Title: Model100 Left Hand	
Size: USLdger	Date: 2020-05-13
KiCad E.D.A. kicad (6.0.0-0)	Rev: Id: 3/7

LED Controller

Keyswitch LEDs

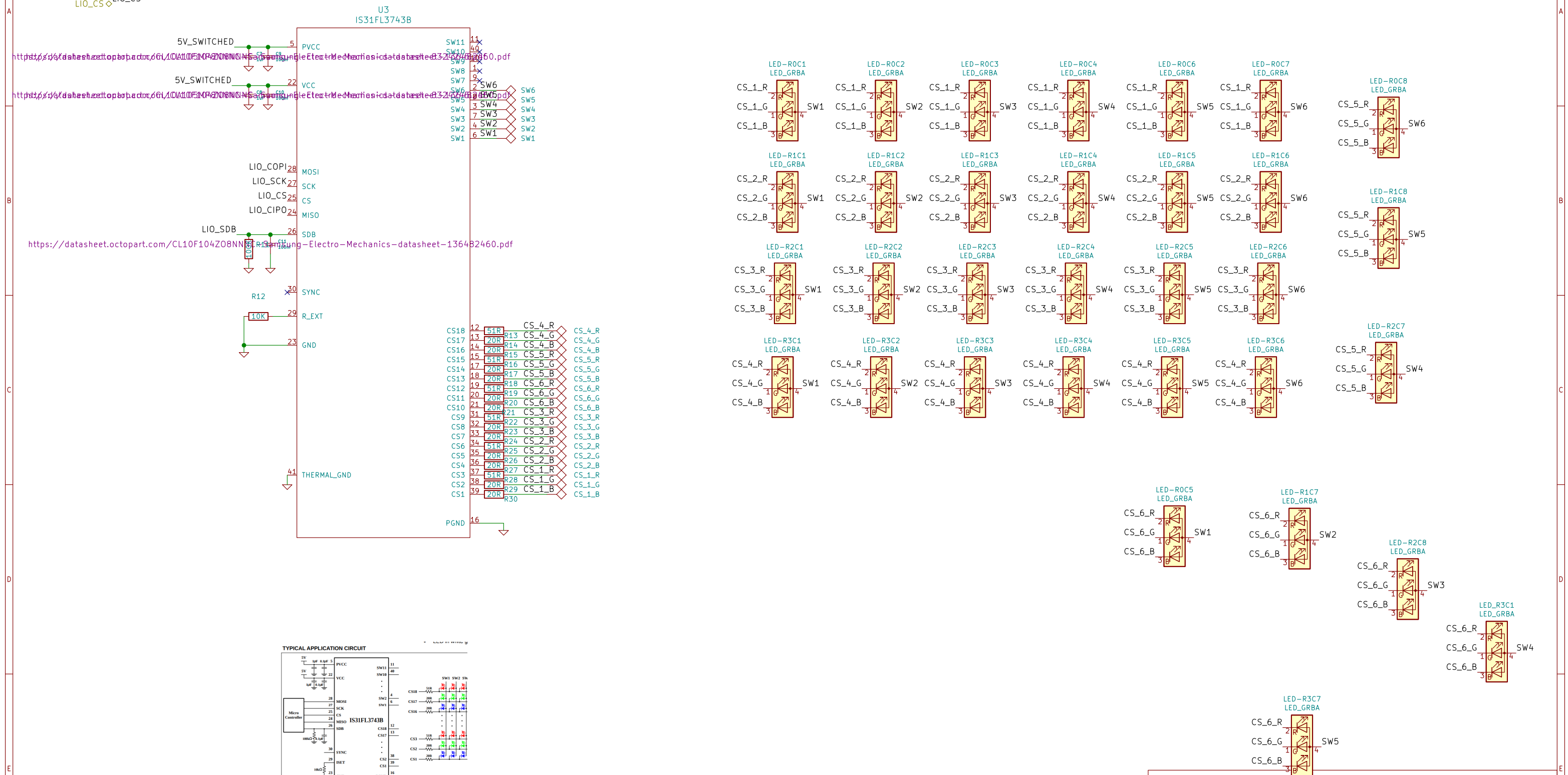


Figure 1 Typical Application Circuit: 66 RGBs

Keyboardio

Sheet: /LEDs/

File: LEDs.kicad_sch

Title: Model100 Left Hand

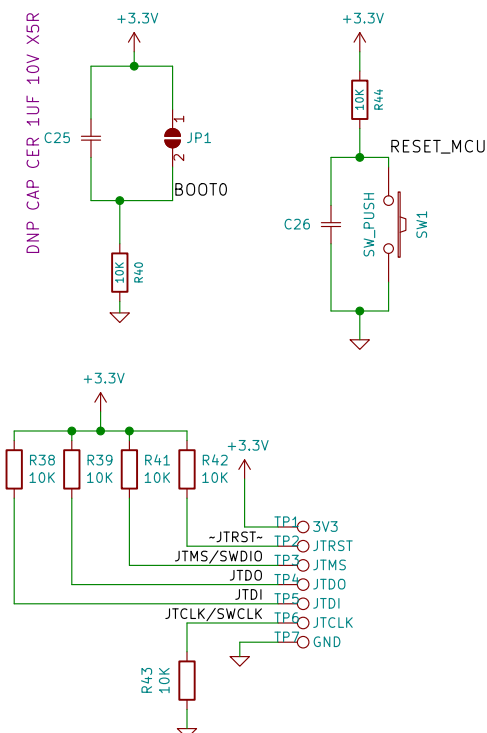
Size: USLedger	Date: 2020-05-13
----------------	------------------

Size: 65536 bytes	Date: 2020
KiCad E.D.A.	kicad (6.0.0-0)

Rev:

Id: 4/7

MCU Programming



TXLED+ is connected to +3.3V through a 1k resistor (R46) and an LED (D2). TXLED- is connected to ground through a 1k resistor (R45) and an LED (D3). Both LEDs are labeled 'LED GREEN DIFFUSED 0805 SMD'.

1µF ±20% 10V Ceramic Capacitor X5R 0603 (1608 Metric)

1µF ±20% 10V Ceramic Capacitor X5R 0603 (1608 Metric)

1µF ±20% 10V Ceramic Capacitor X5R 0603 (1608 Metric)

1µF ±20% 10V Ceramic Capacitor X5R 0603 (1608 Metric)

+ 3.3V

Q1

Q2

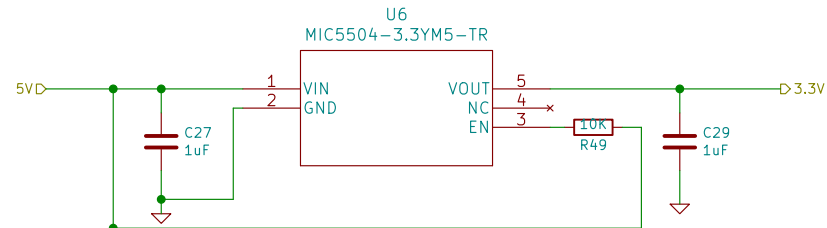
Q3

Q4

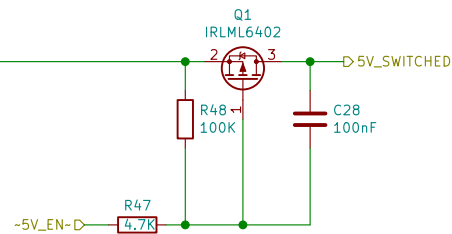
Place close to 2xVCC, 2x AVCC pins.

Rev:
Id: 5/7

Voltage Regulation



Inrush limiting



Inrush limiter design from
https://www.ftdichip.com/Support/Documents/AppNotes/AN_146_USB_Hardware_Design_Guidelines_for_FTDI_ICs.pdf

Main MCU on unswitched power, because it needs to be on to enable PWR_EN

Keyboardio

Sheet: /Power/
File: Power.kicad_sch

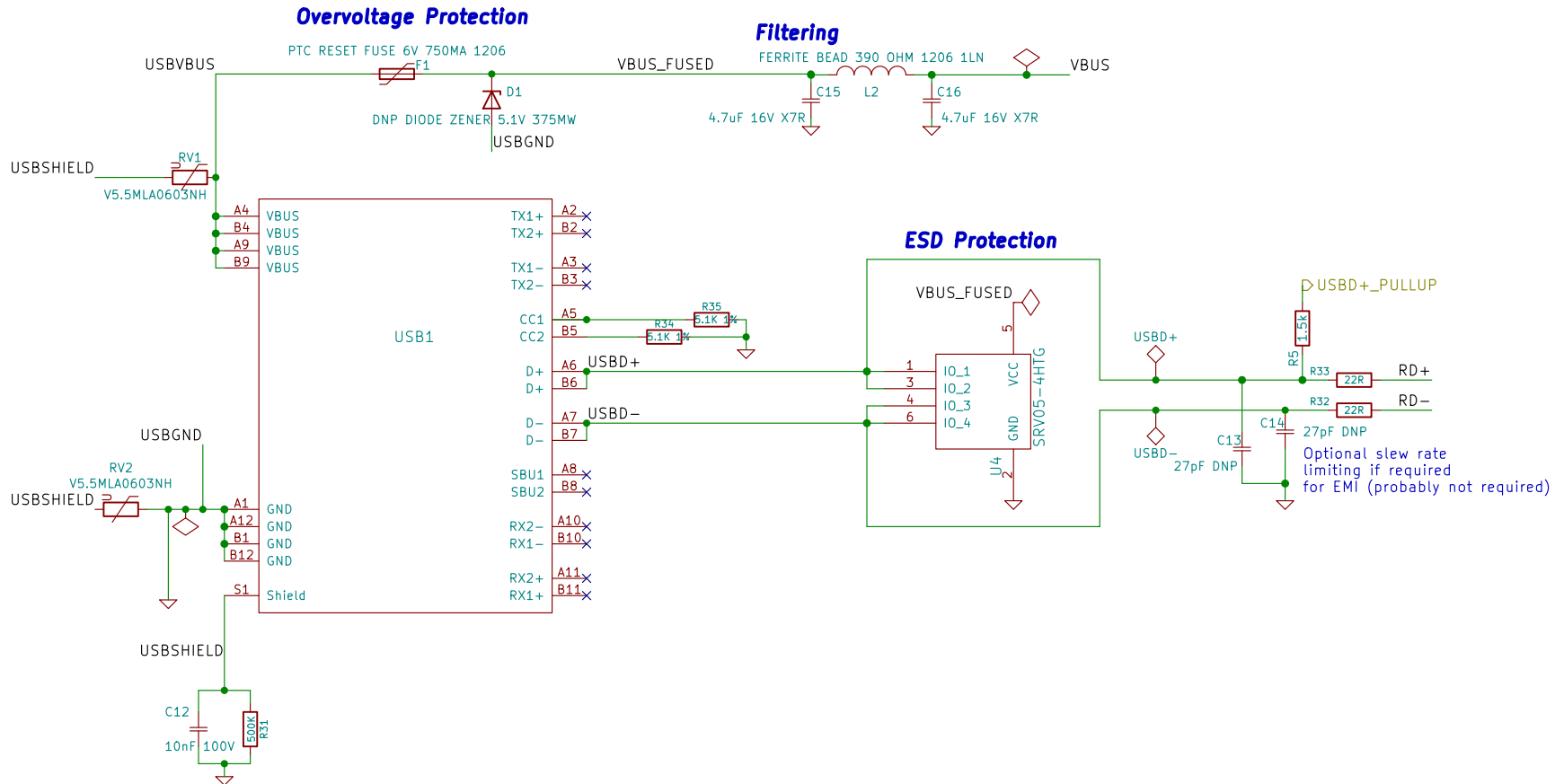
Title: Model100 Left Hand

Size: A4 Date:
KiCad E.D.A. kicad (6.0.0-0)

Rev:
Id: 6/7

USB

VBUS
RD-
RD+
USBSHIELD



Varistors for overvoltage protection per
https://m.littelfuse.com/~media/electronics_technical/application_notes/usb/littelfuse_why_does_usb_2_0_need_circuit_protection_application_note.pdf

Keyboardio

Sheet: /USB/
 File: USB.kicad_sch

Title: Model100 Left Hand

Size: USLetter Date: 2020-05-13
 KiCad E.D.A. kicad (6.0.0-0)

Rev:
 Id: 7/7