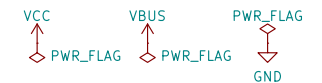
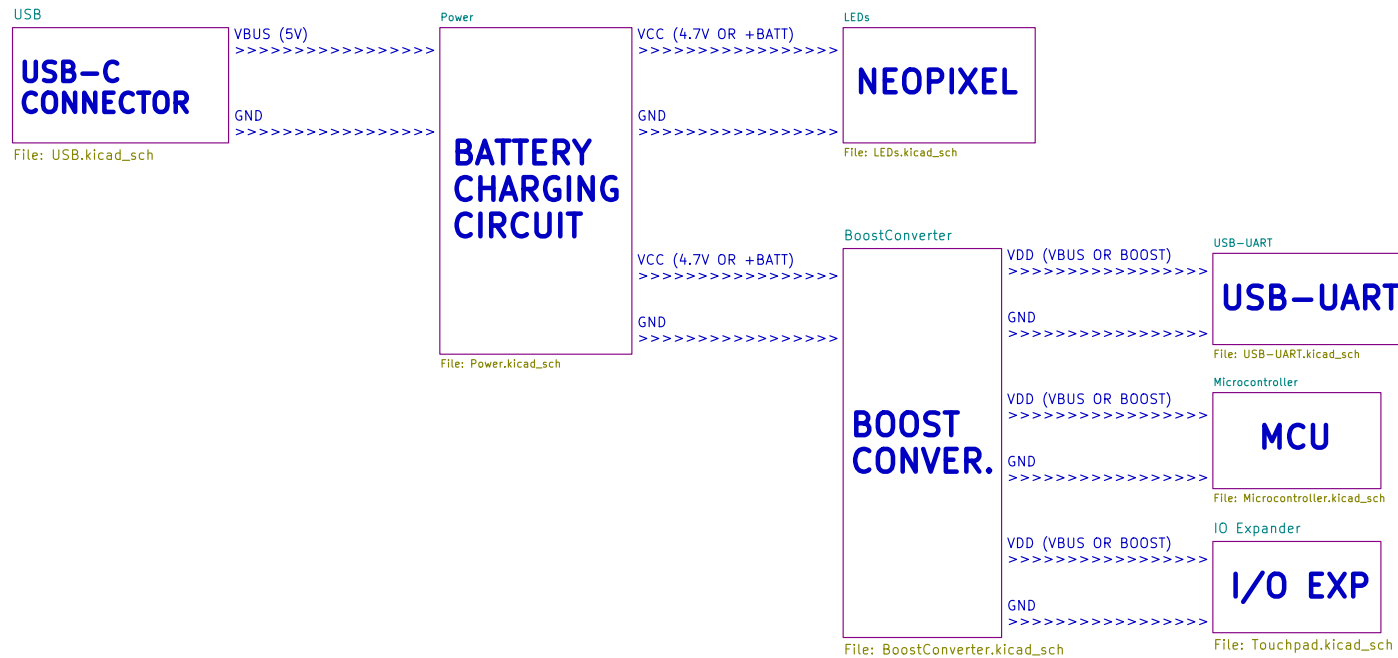


ČOVJEČE NE LJUTI SE (CNLJS)



TODO:

- ako je spojen VBUS, onda ne dovoditi VCC na regulator napona
- power sklopka koja može prekinuti 1A
- rupe za montažu
- ispraviti dvije pozicije koje su preblizu
- kockica tipkalo
- LEDice za punjenje baterije
- buzzer

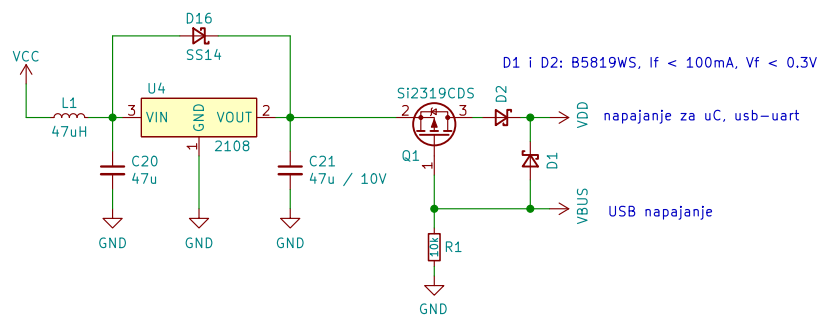
Josip&Zvonimir

Sheet: /
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Title: CNLJS

Size: A4 Date: 2021-12-22
KiCad E.D.A. eeschema (6.0.6)

Rev: v0.01
Id: 1/12



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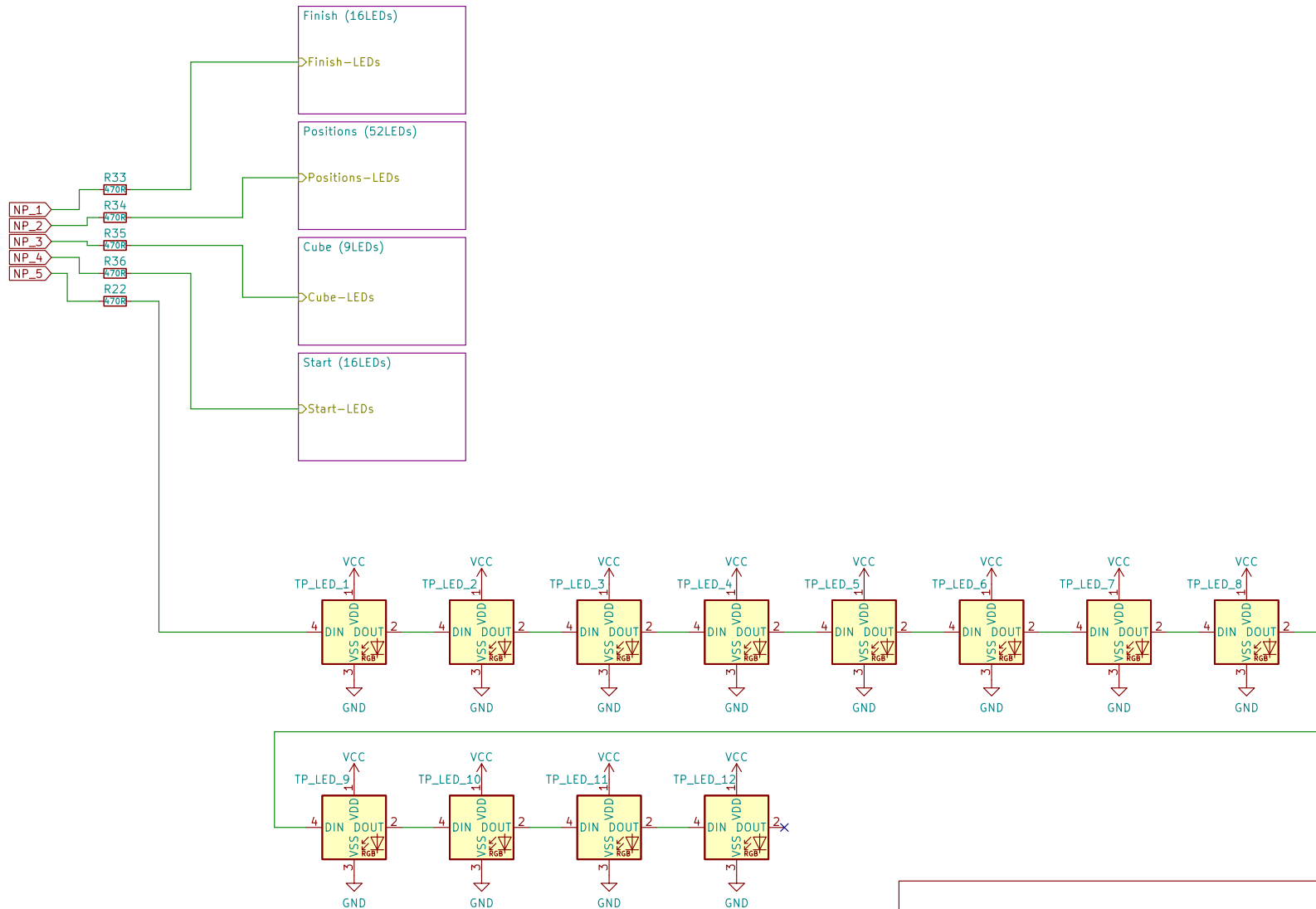
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Rev: v0.01

Id: 2/12



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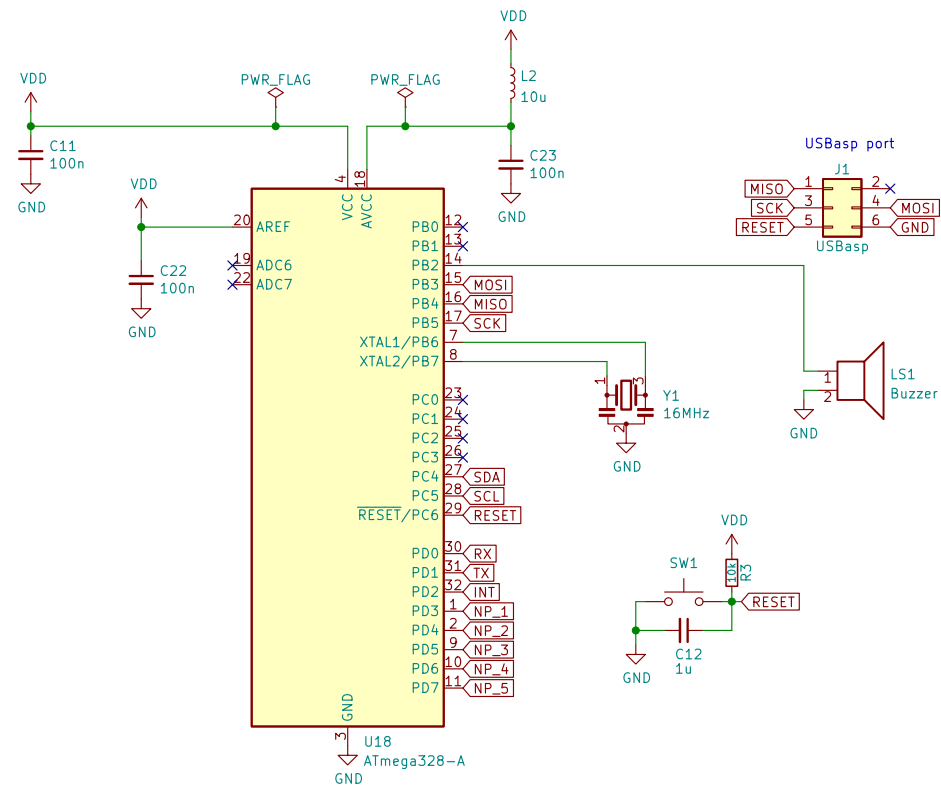
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KiCad E.D.A. eeschema (6.0.6)

Rev: v0.01

Id: 3/12



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Sheet: /Microcontroller/
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Title: CNLJS

Size: A4 Date: 2021-12-22

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Rev: v0.01

Id: 4/12

MCP73871

The schematic shows the MCP73871 device connected to various power sources and monitoring points. Key components include:

- Power Sources:** USB NAPAANJE (VBUS), TANTALUM KOND. (C13, C14), +BATT (Battery_Cell).
- Resistors:** R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15.
- Capacitors:** C13, C14, C15, C16.
- Status Indicators:** PG (POWER GOOD STATUS OUTPUT), STAT1/LBO, STAT2 (CHARGE STATUS UPDATE 1 & 2).
- Other Components:** PADDOVI SKLOPKE (Switch), BT1 Battery_Cell.

Legend:

- PG = POWER GOOD STATUS OUTPUT
- STAT1 = CHARGE STATUS UPDATE 1
- STAT2 = CHARGE STATUS UPDATE 2

Note: If temperature monitoring is not required, place a standard 10k resistor from THERM to VSS.

For optimum voltage regulation, it is recommended to place the battery pack closest to the device's VBAT and VSS pins to minimize voltage drops along the high current-carrying PCB traces. If the PCB layout is used as a heat sink, adding many vias in the heat sink pad can help conduct more heat to the PCB backplane, thus reducing the maximum junction temperature.

Josip&Zvonimir		
Sheet: /Power/		
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Title: CNLJS		
Size: A4	Date: 2021-12-22	Rev: v0.01
KiCad E.D.A.	eeschema (6.0.6)	Id: 5/12

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If the PCB layout is used as a heat sink, adding many vias in the heat sink pad can help conduct more heat to the PCB backplane, thus reducing the maximum junction temperature.

PG = POWER GOOD STATUS OUTPUT
STAT1 = CHARGE STATUS UPDATE 1
STAT2 = CHARGE STATUS UPDATE 2

If temperature monitoring is not required, place a standard 10k resistor from THERM to VSS.

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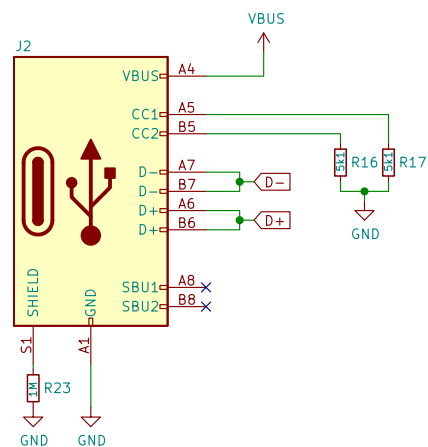
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Size: 71	Date: 2021
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Rev: v0.01

Id: 5/12



The device must have 5.1k pull-down on the its port CC pin (on both pins).

Once the C-C cable is connected between two link partners, the DFP (host) will sense the drag by 5.1k resistor (from device side). As result, it will turn the VBUS on. This is how a host recognizes that a connection has been made. The connect event is essentially controlled by sink side having 5.1k Rd.

SBU1/SBU2: these are low-speed lines used only for Alternate Mode and accessory mode. For example, with DisplayPort, AUX+/AUX- transmit over the SBU lines. For audio adapter accessory mode, these lines are used for the microphone input and analog GND.

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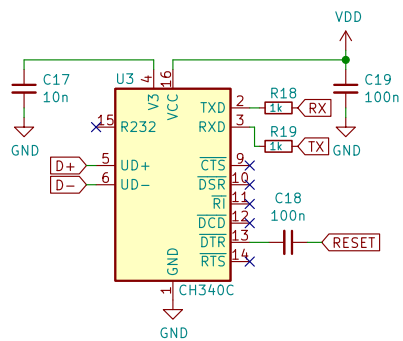
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Rev: v0.01

Id: 6/12



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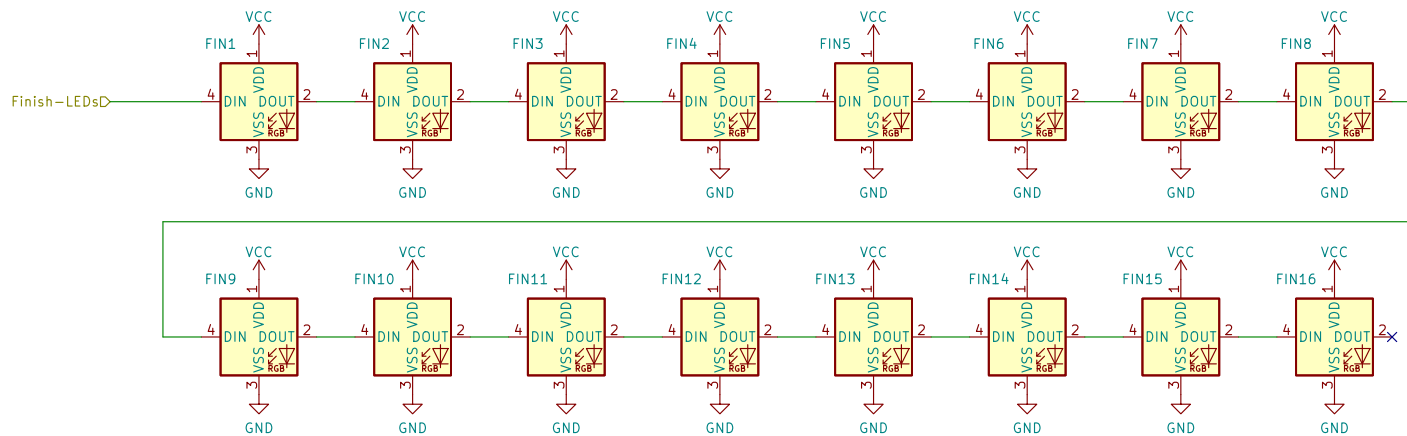
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Rev: v0.01

Id: 7/12



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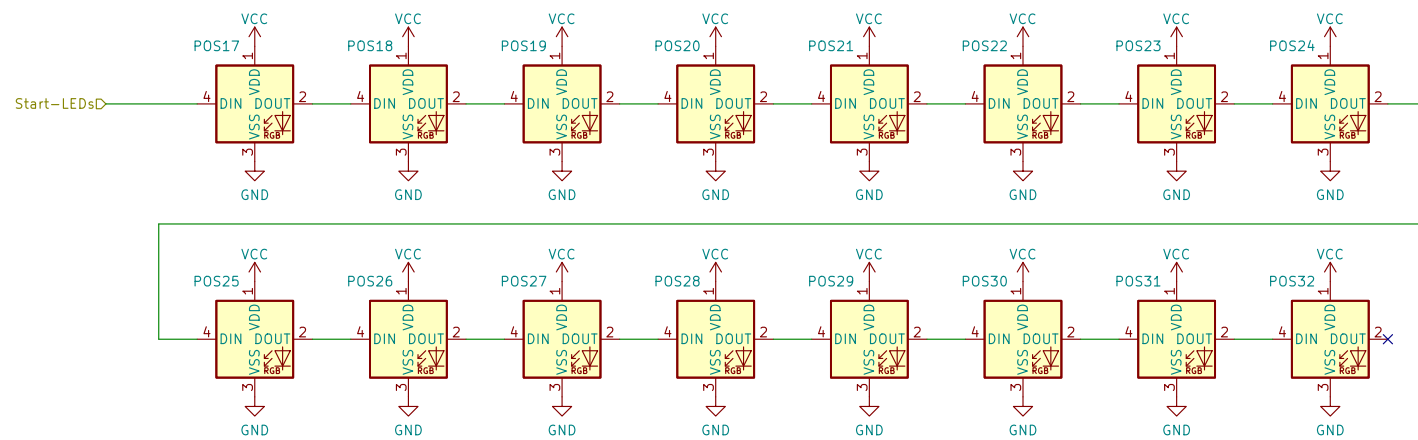
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Rev:

Id: 8/12



Sheet: /LEDs/Start (16LEDs)/
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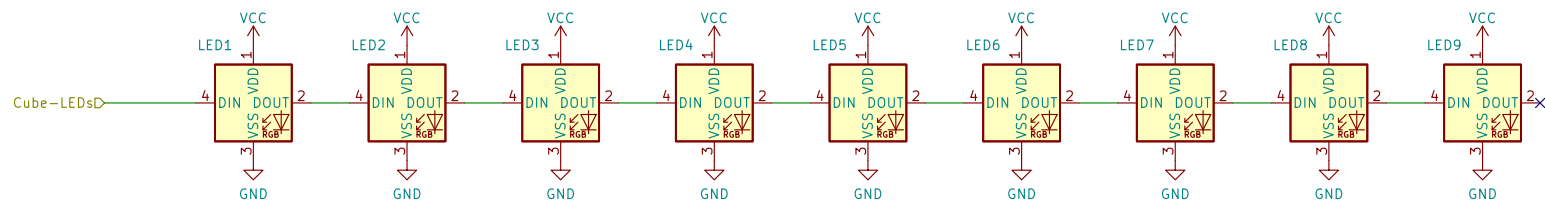
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KiCad E.D.A. eeschema (6.0.6)

Rev:

Id: 9/12



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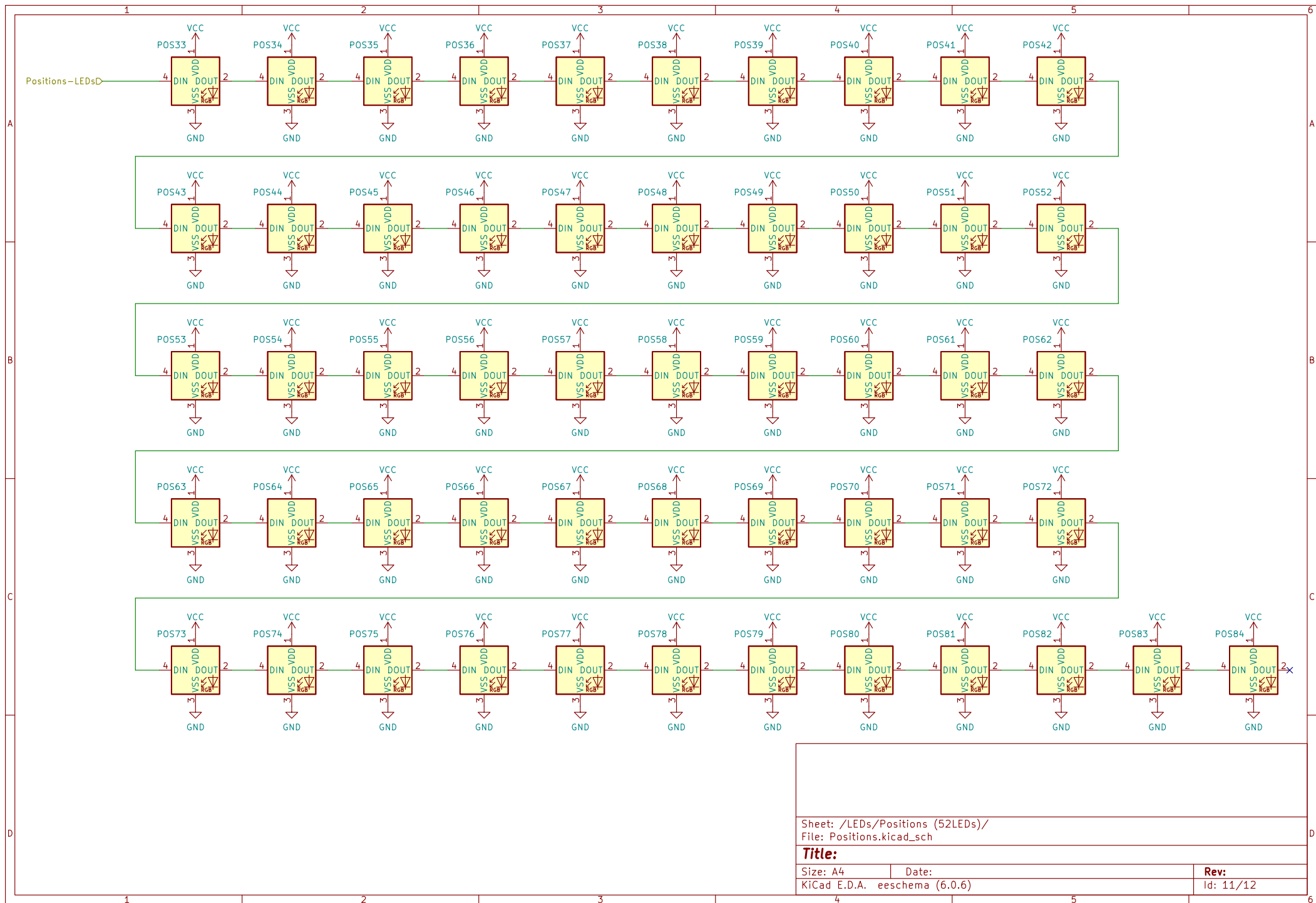
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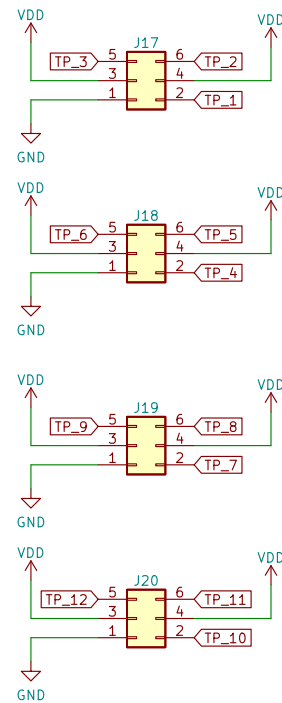
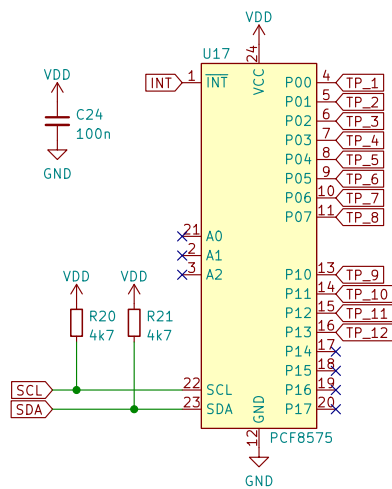
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KiCad E.D.A. eeschema (6.0.6)

Rev:

Id: 10/12





Sheet: /IO Expander/
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Title:

Size: A4

Date:

KiCad E.D.A. eeschema (6.0.6)

Rev:

Id: 12/12