LENCANA LED BULAT v0.1

CH32V003F4P6 · 12 LED merah 0603 charlieplex lewat 4 pin · CR2032 · 50 mm bulat

WS2812B tidak dipakai: VDD minimum 3,3 V, CR2032 turun sampai 2,0 V.

Dibangkitkan oleh gen_sch.py.

Lencana LED bulat



File: lencana-led-bulat-papan.kicad_sch

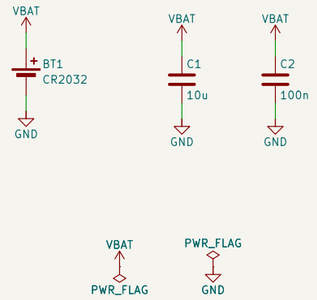
Contoh rancang.in: CH32V003 + 12 LED charlieplex + CR2032, 50 mm bulat

rancang.in

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File: lencana-led-bulat.kicad_sch		
Title: LENCANA LED BULAT v0.1		
Size: A3	Date: 2026-10-28	**Rev: 0.1**
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BATERAI CR2032

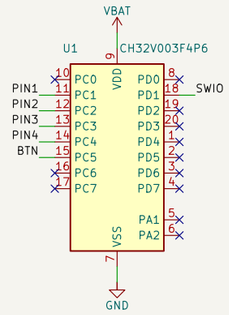
3,0 V turun sampai 2,0 V · SMD Keystone 3034 di sisi bawah papan



Puncak CR2032 ±15 mA: 10 µF meredam puncak, resistor seri LED membatasi arus.

MCU: CH32V003F4P6

TSSOP-20 · 48 MHz · VDD 2,7–5,5 V · SWIO = PD1



PC1–PC4 (pin 11–14) = 4 jalur charlieplex; PC5 = tombol; PD1 = SWIO.

Pin lain tidak dipakai (no-connect).

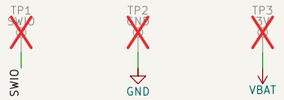
TOMBOL USER

PC5 ke GND, pull-up internal



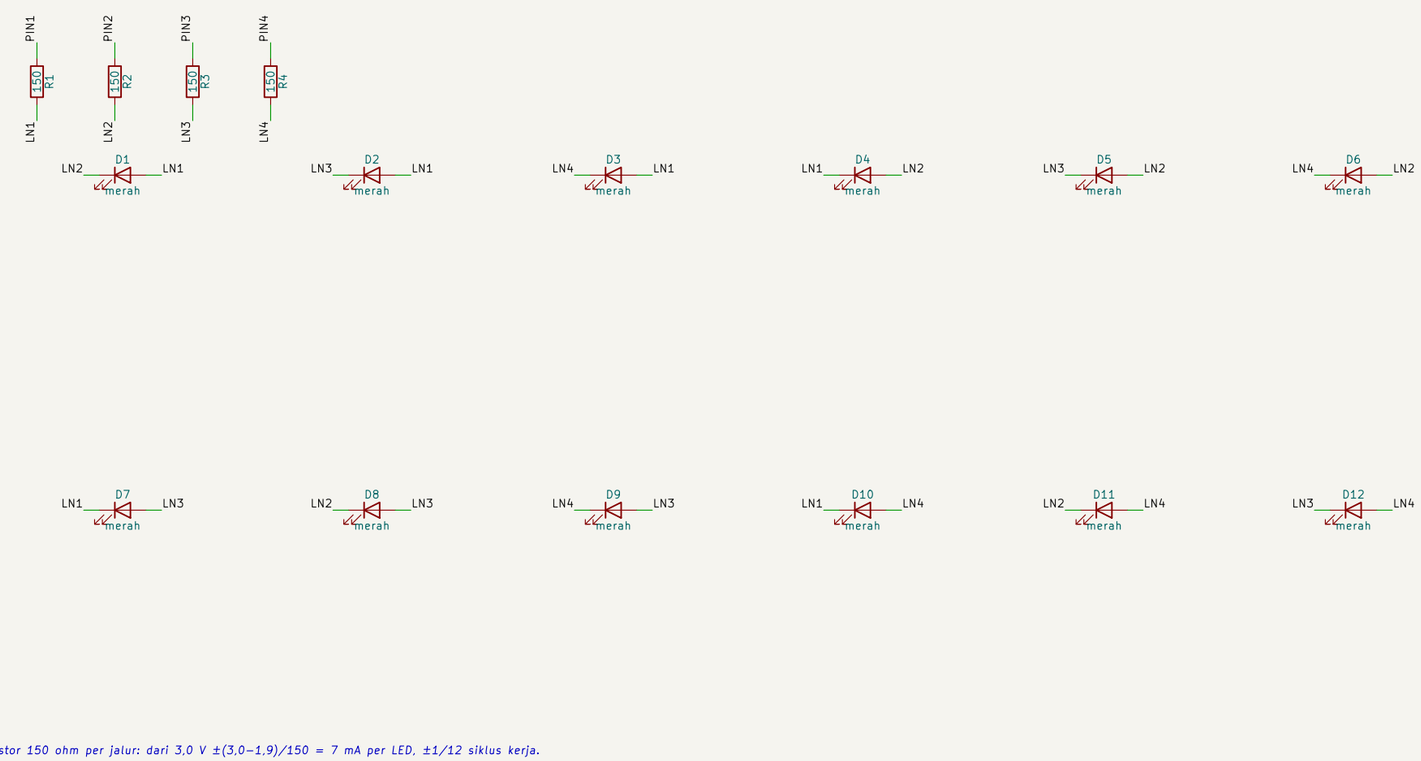
PEMROGRAMAN SWIO

3 pad: SWIO, GND, VBAT (WCH-LinkE mode SDI)



MATRIKS CHARLIEPLEX: 4 jalur, 12 LED merah

LED (a,b): anoda di jalur a, katoda di jalur b; resistor seri per jalur 150 ohm



Resistor 150 ohm per jalur: dari 3,0 V ±(3,0–1,9)/150 = 7 mA per LED, ±1/12 siklus kerja.

Hanya satu LED menyala pada satu waktu (multiplex); jalur lain Hi-Z.

Contoh rancang.in: CH32V003 + 12 LED charlieplex + CR2032, 50 mm bulat

rancang.in

Sheet: /Lencana LED bulat/

File: lencana-led-bulat-papan.kicad_sch

Title: Lencana LED bulat

Size: A3	Date: 2026-10-28	**Rev: 0.1**
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