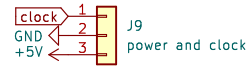
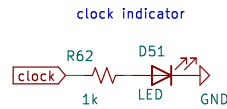


external signals coming in / going out

Terminal Strip in enclosure:
CLOCK – teensy and volca sync in
5V
GND

offboard...
need to mix VOLCA gated audio with
Teensy Audio



drum trigger land

File: drum_triggers.kicad_sch

led_drivers

File: led_drivers.kicad_sch

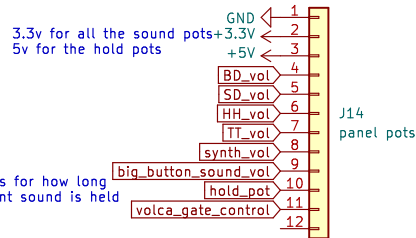
power

File: power_world.kicad_sch

volca triggers

File: volca_triggers.kicad_sch

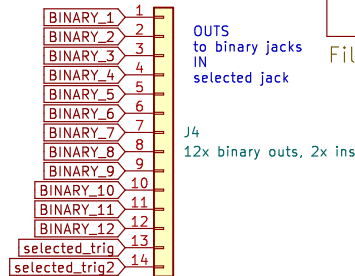
panel mount pots



hold pot is for how long
the ambient sound is held
25k

hold pot 1 – mid pin connected to 5v
other side here

ambient trigger



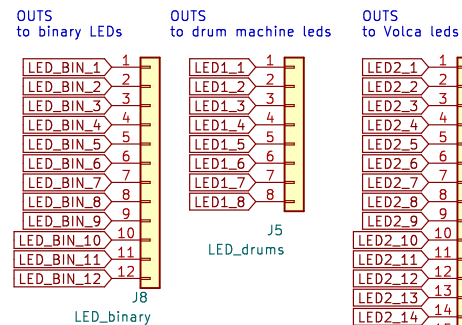
File: ambient_trigger.kicad_sch

teensy

File: teensy.kicad_sch

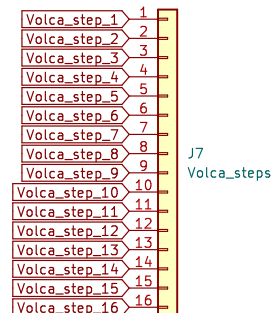
LED OUTS

positive leg is the to connector,
negative leg is GND



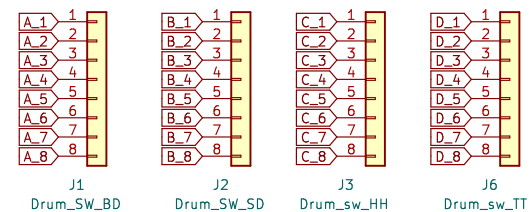
VOLCA switches

OUTS
to Volca switches
IN
return from volca common

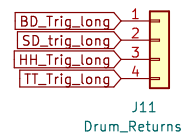


DRUM Switches

OUTS
to the drum machine switches



INS
returns from drum machine
switch commons



Sheet: /
File: waterwheel_synth_v2.kicad_sch

Title:

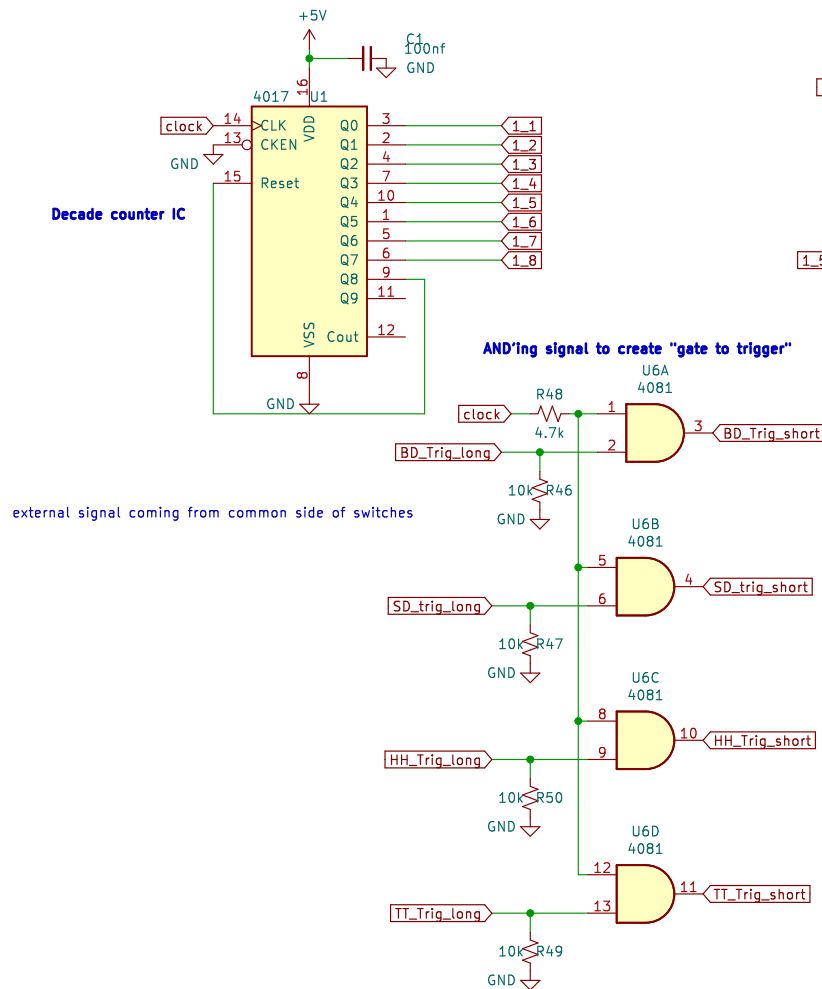
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KiCad E.D.A. kicad (6.0.10)

Date:

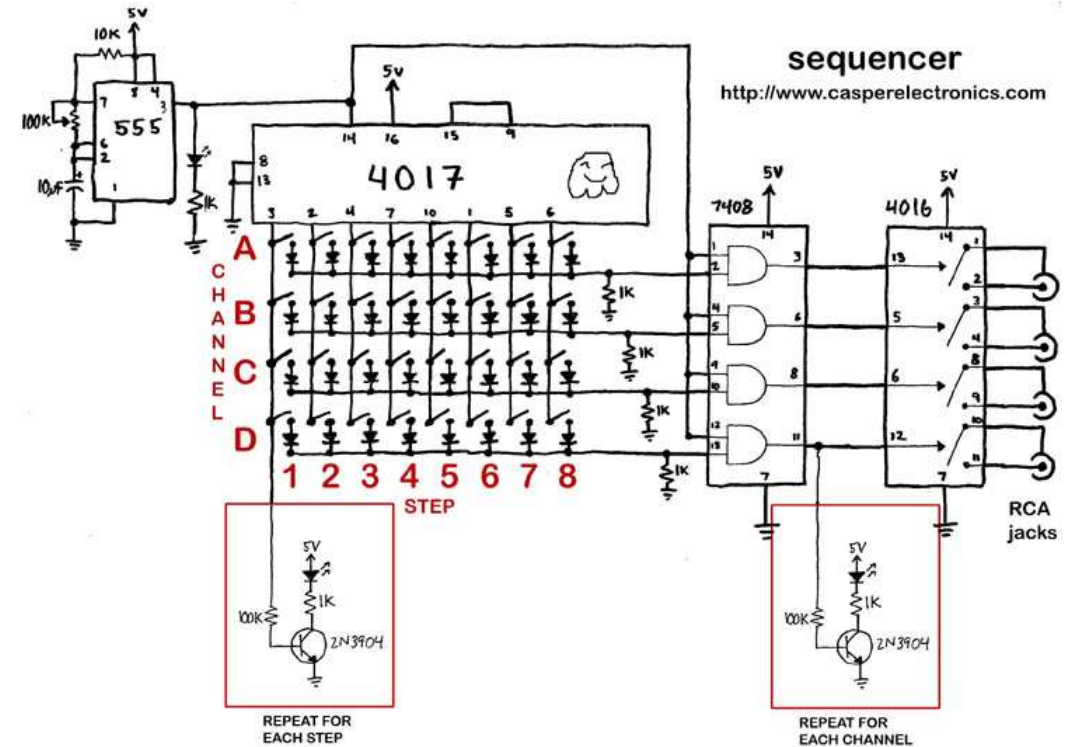
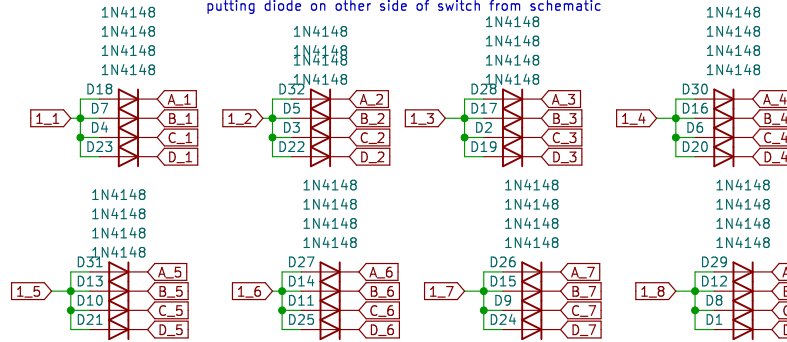
Rev:

Id: 1/7

8 STEP SEQUENCER with 4 drum sounds



all these header pins are going out to switches mounted on the panel
putting diode on other side of switch from schematic



Drum trigger zone

Sheet: /drum trigger land/
File: drum_triggers.kicad_sch

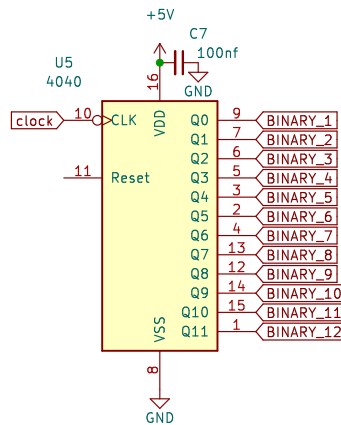
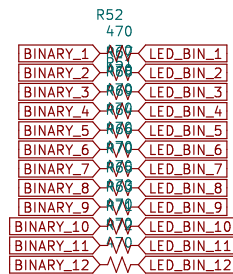
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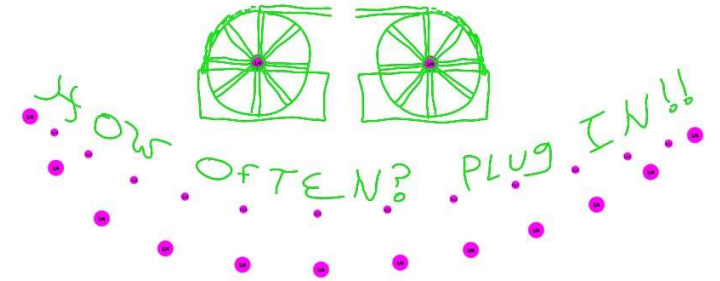
Date:

Rev:

Id: 2/7

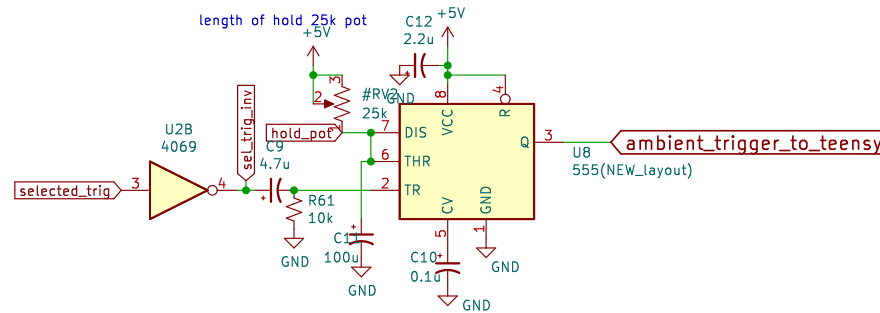


front panel!
these are all 1/4" jacks. patch cable
connects the wheel jack to one of the
binary counters.
selected_trig is the result of that patch

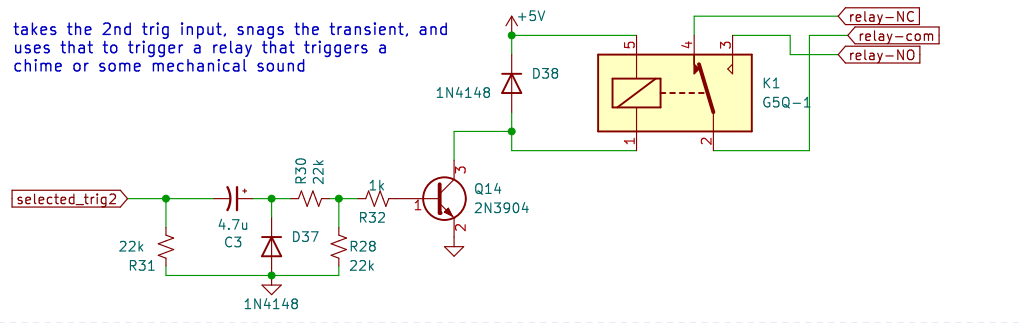


selected_trig = ambient sound on teensy
selected_trig2 = mechanical switch chime sound

555 circuit determines how long the sound will hold



takes the 2nd trig input, snags the transient, and
uses that to trigger a relay that triggers a
chime or some mechanical sound



Sheet: /ambient_trigger/
File: ambient_trigger.kicad_sch

Title:

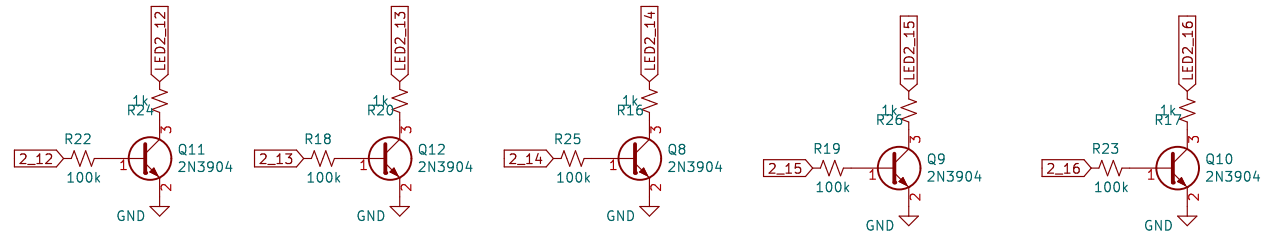
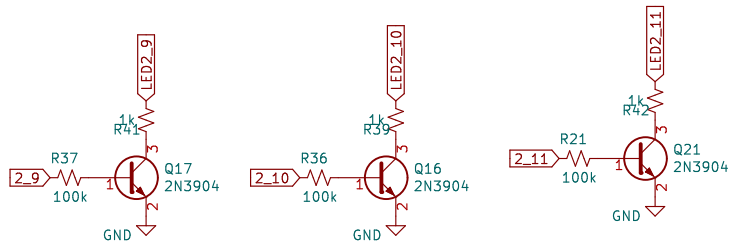
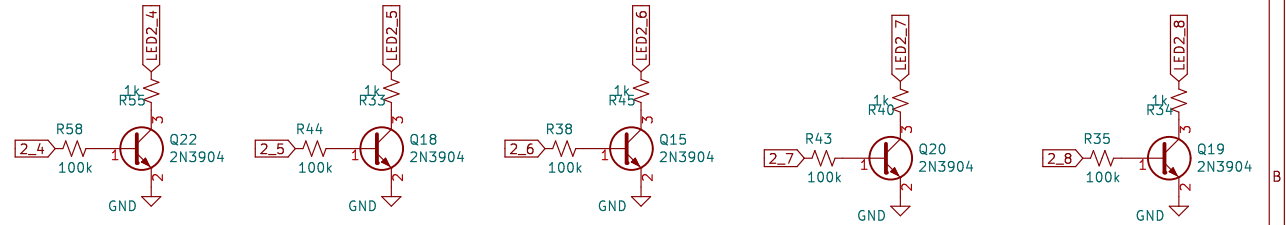
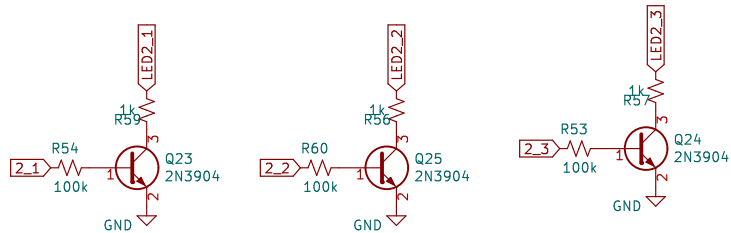
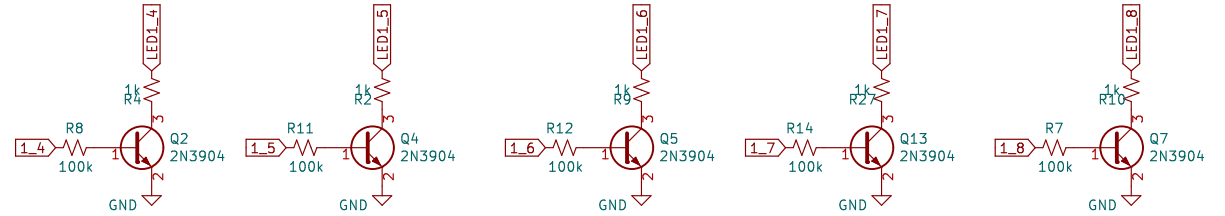
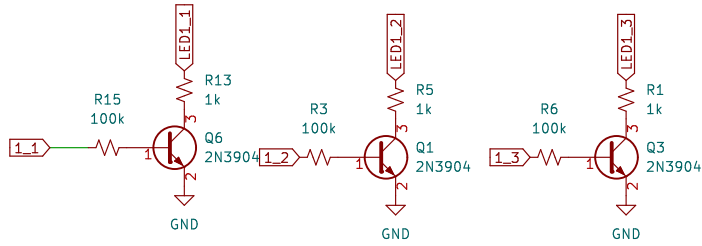
Size: A4
KiCad E.D.A. kicad (6.0.10)

Date:

Rev:
Id: 3/7

LED wiring – positive leg is 5V, wired all together, negative leg is port

counter LED wiring
positive leg is 5V, wired all together, negative leg is port



fricking lots of led drivers cause you aren't supposed to pull more than like 5ma from the chips :-///

ALL LEDS going out through headers on the board

Sheet: /led_drivers/
File: led_drivers.kicad_sch

Title:

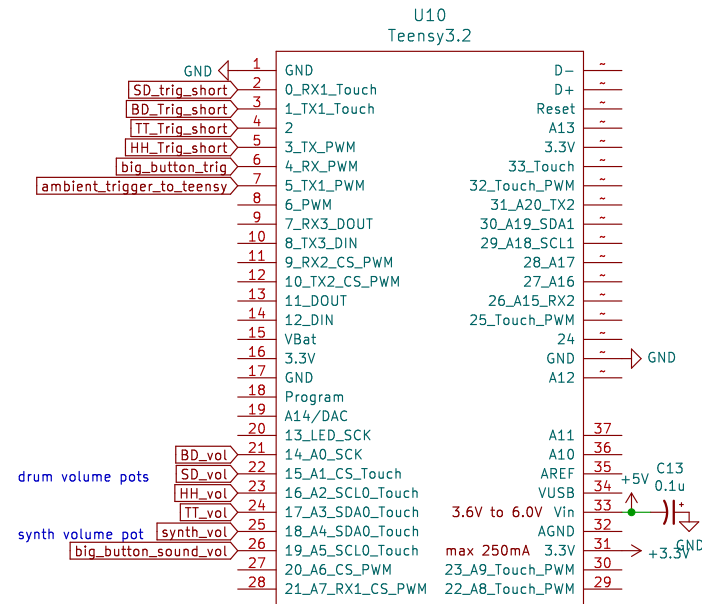
Size: A4
KiCad E.D.A. kicad (6.0.10)

Date:

Rev:
Id: 4/7

Using teensy to play drum samples, synth sounds,
and fun trigger sound with big button.

Using the Teensy Audio Shield for audio output.
Also SD card on audio shield will contain the samples.
Audio output is from 1/8" jack on audio shield



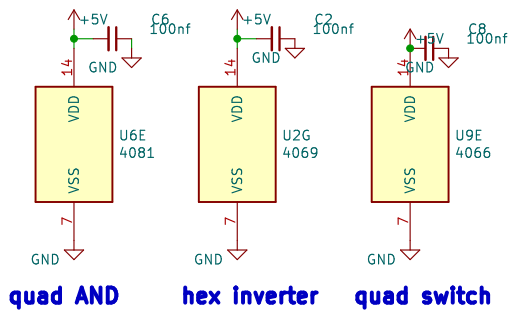
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File: teensy.kicad_sch

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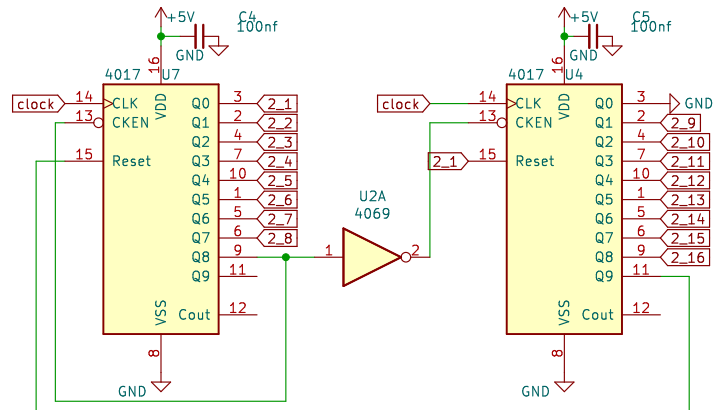
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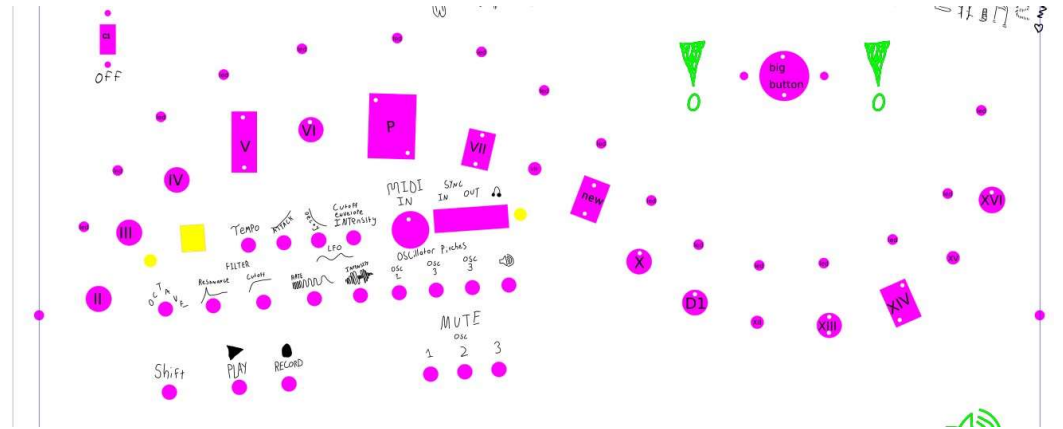
Rev:
Id: 5/7



Sheet: /power/ File: power_world.kicad_sch		
Title:		
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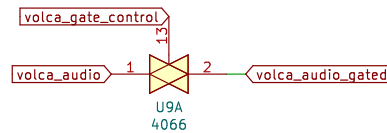


front panel of volca trigger.
16 switches trigger the step being on/off.



	1N4148	
2_1	D36	Volca_step_1
2_2	D35	Volca_step_2
2_3	D33	Volca_step_3
2_4	D34	Volca_step_4
2_5	D43	Volca_step_5
2_6	D40	Volca_step_6
2_7	D41	Volca_step_7
2_8	D39	Volca_step_8
2_9	D42	Volca_step_9
2_10	D46	Volca_step_10
2_11	D45	Volca_step_11
2_12	D44	Volca_step_12
2_13	D49	Volca_step_13
2_14	D48	Volca_step_14
2_15	D50	Volca_step_15
2_16	D47	Volca_step_16

4066 – quad bilateral switch.
it gates the volca audio



Sheet: /volca triggers/
File: volca_triggers.kicad_sch

Title:

Size: A4
KiCad E.D.A. kicad (6.0.10)

Date:

Rev:
Id: 7/7