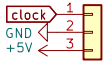
external signals coming in / going out

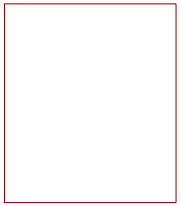
Terminal Strip in enclosure:
CLOCK – teensy and volca sync in
5V
GND

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

clock indicator

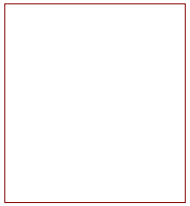


drum trigger land



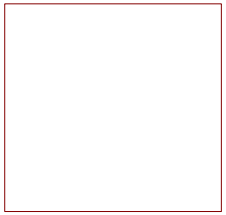
File: drum_triggers.kicad_sch

led_drivers



File: led_drivers.kicad_sch

power



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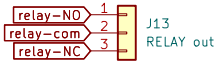
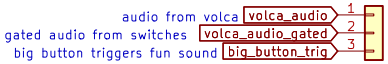
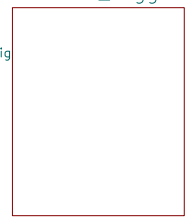


audio from teensy audio adaptor board

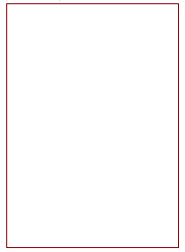


ambient_trigger



File: ambient_trigger.kicad_sch

teensy

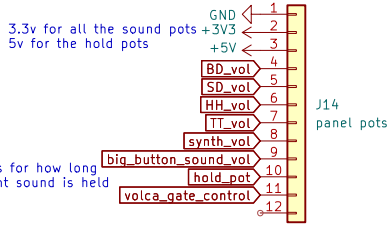


File: teensy.kicad_sch

volca triggers

File: volca_triggers.kicad_sch

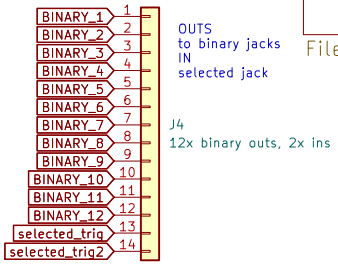
panel mount pots



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

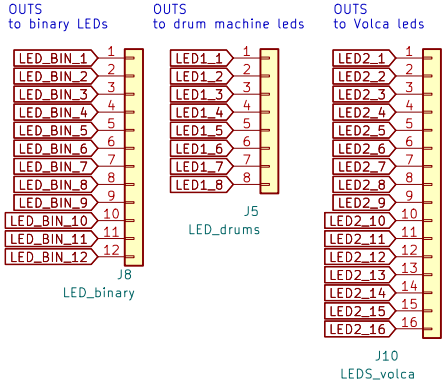
hold pot 1 – mid pin connected to 5v
other side here

ambient trigger

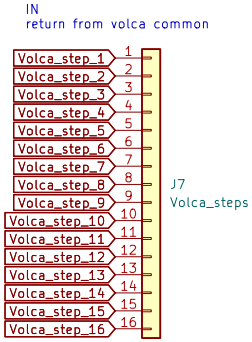


LED OUTS

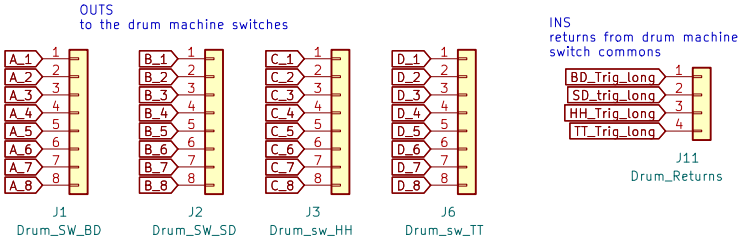
positive leg is the to connector,
negative leg is GND



VOLCA switches



DRUM Switches



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File: waterwheel_synth_v2.kicad_sch

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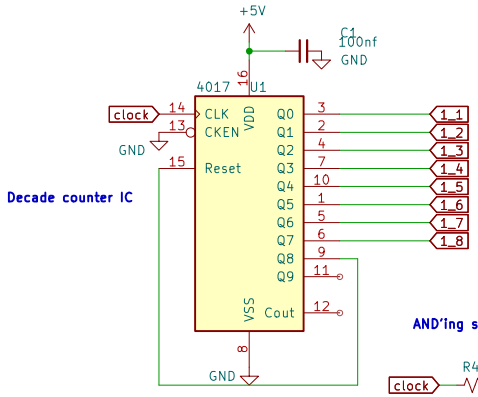
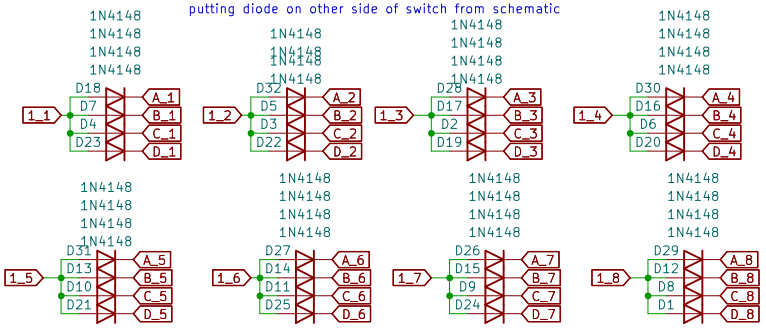
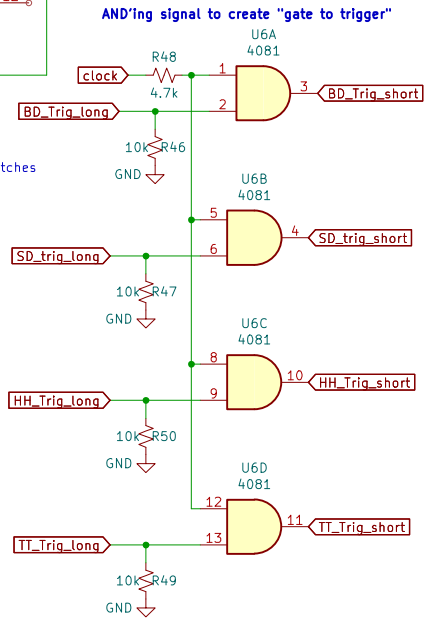
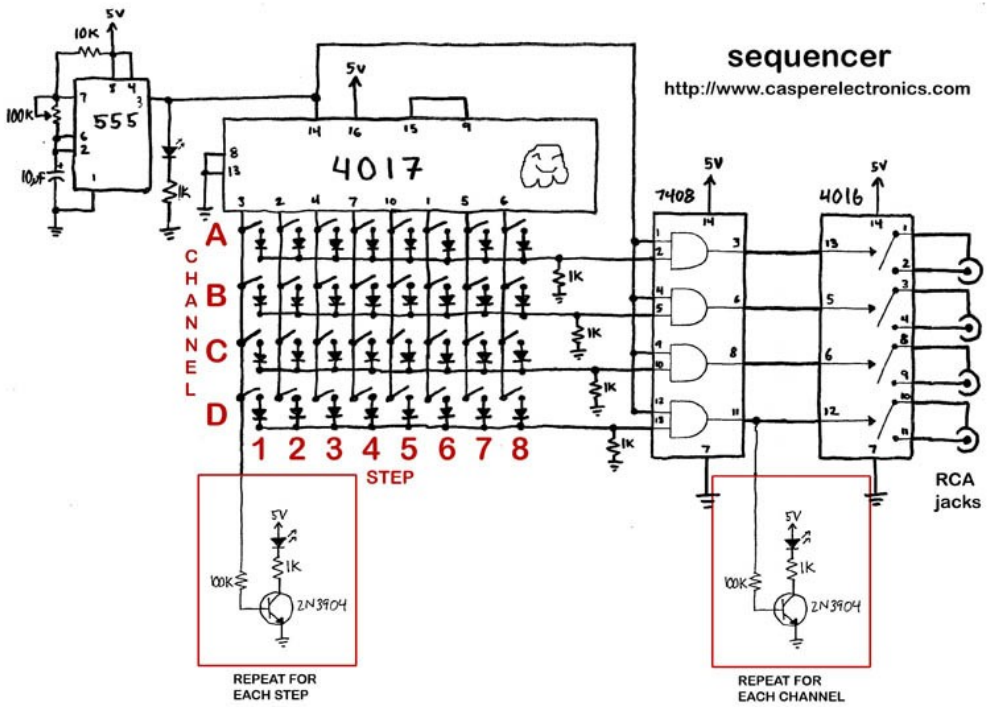
Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.4		Id: 1/7

8 STEP SEQUENCER with 4 drum sounds









Drum trigger zone

Sheet: /drum trigger land/		
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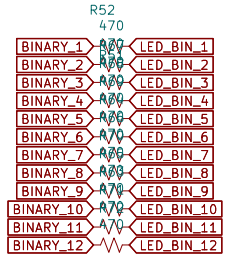
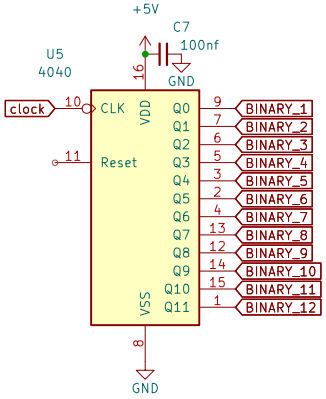
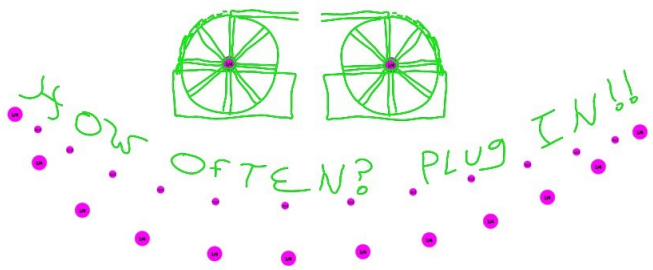
Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.4		Id: 2/7





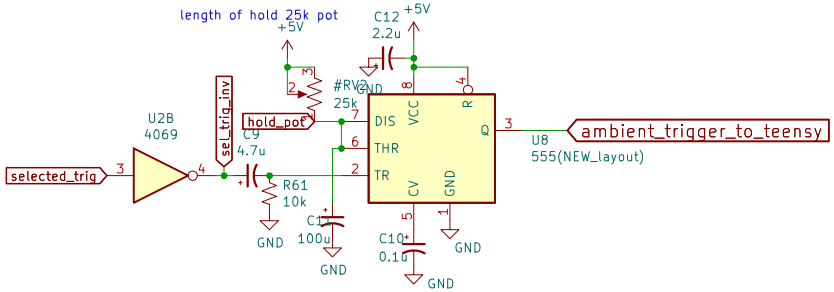
front panel!
these are all 1/4" jacks. patch cable connects the wheel jack to one of the binary counters.
selected_trig is the result of that patch

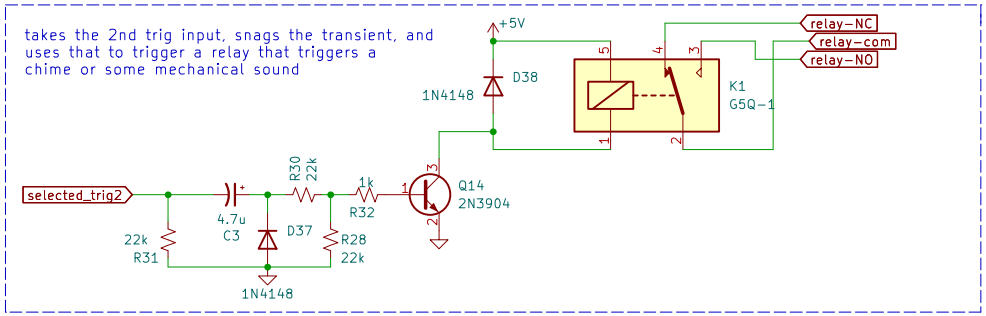


selected_trig = ambient sound on teensy
selected_trig2 = mechanical switch chime sound

555 circuit determines how long the sound will hold

length of hold 25k pot





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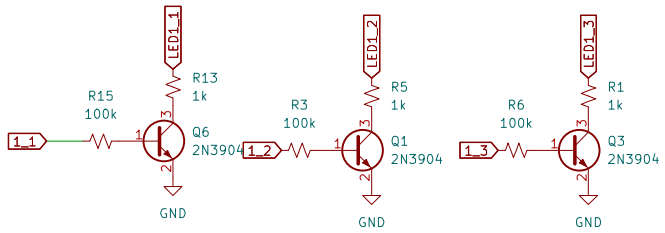
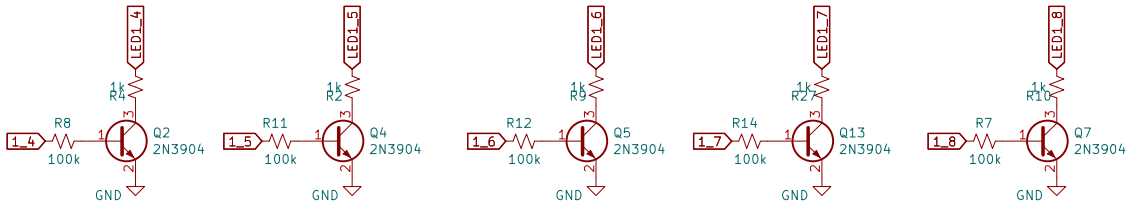
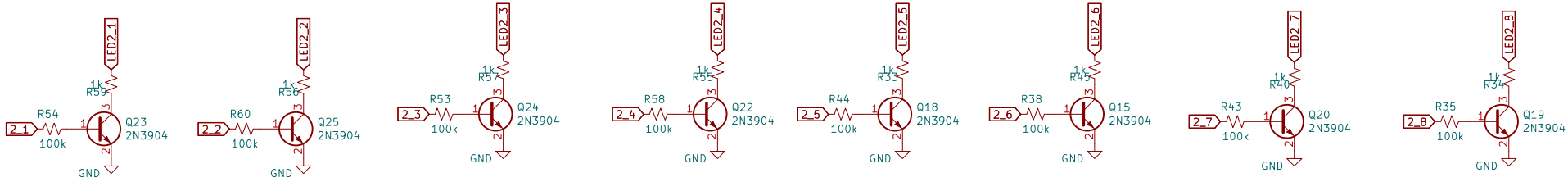
File: ambient_trigger.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.4		Id: 3/7

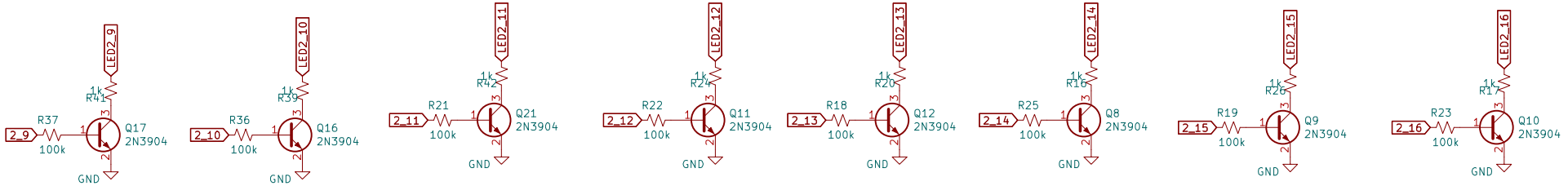
LED wiring – positive leg is 5V, wired all together, negaive leg is port



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







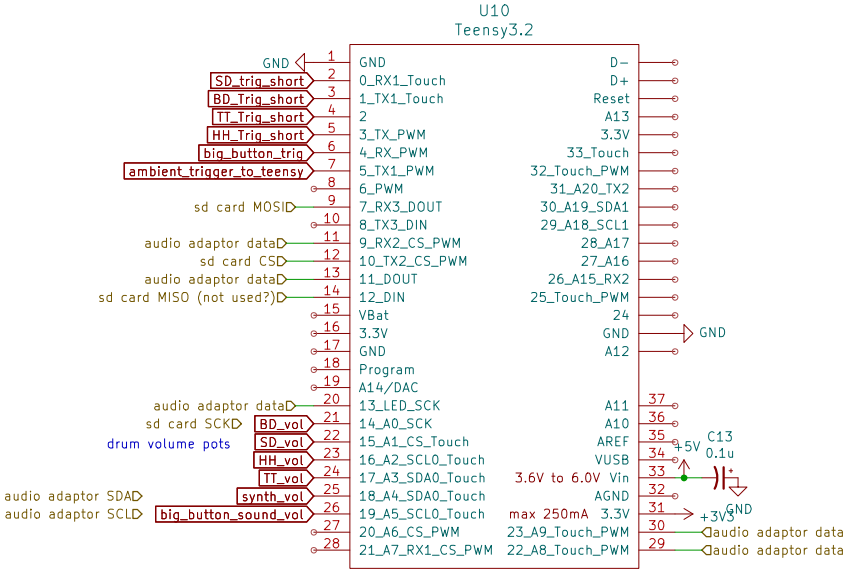
fricking lots of led drivers cause you aren't supposed to pull more than like 5ma from the chips :-///

ALL LEDS going out through headers on the board

Sheet: /led_drivers/ File: led_drivers.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.4		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



Sheet: /teensy/
File: teensy.kicad_sch

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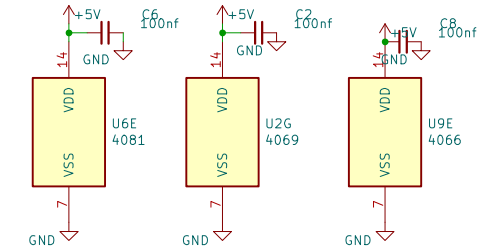
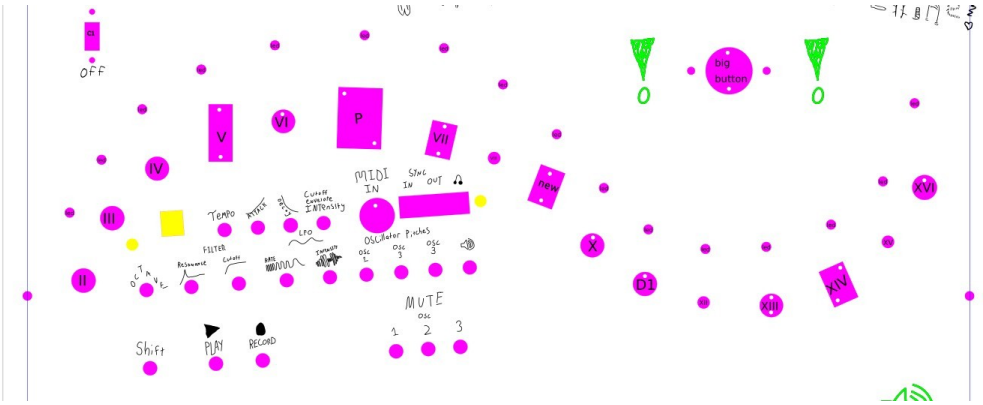
Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.4		Id: 5/7

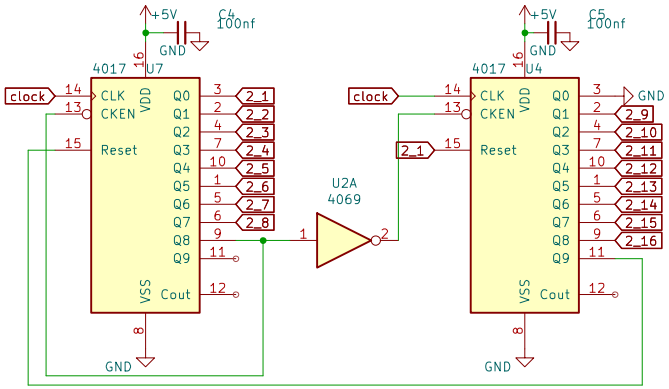
POWER for CHIPS



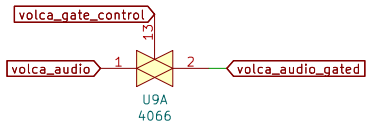
Sheet: /power/		
File: power_world.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.4		Id: 6/7

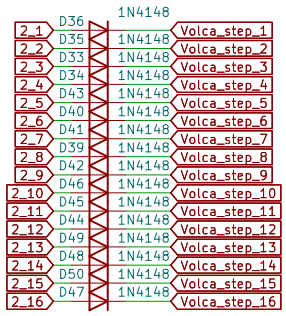
front panel of volca trigger.
16 switches trigger the step being on/off.





4066 – quad bilateral switch.
it gates the volca audio





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