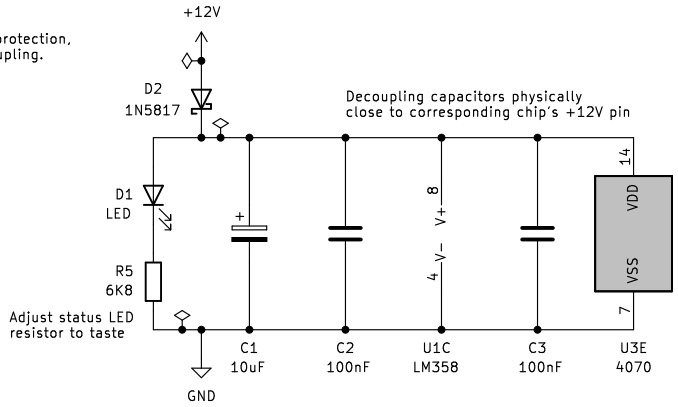
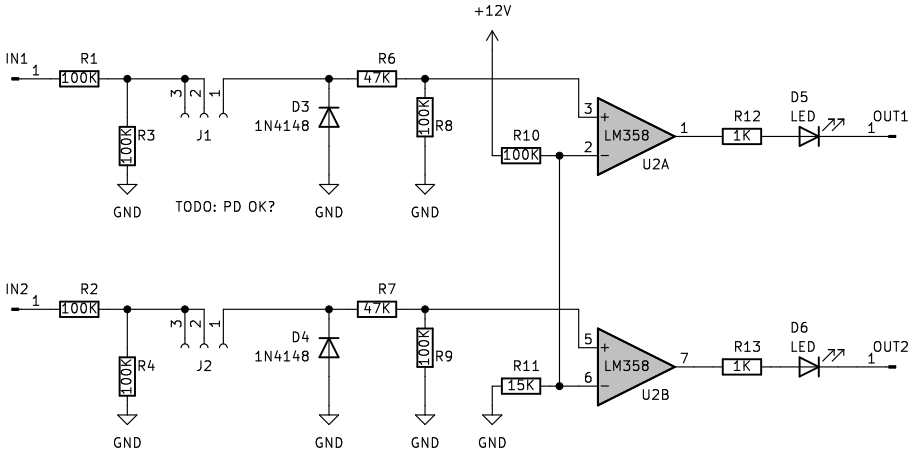
Power

Reverse voltage protection,
status LED, decoupling.



Gate to Trigger × 2

Based on Ken Stone's CGS24 & similar circuits.
Values taken from original circuit, they work at 12V (original uses 15V)
https://sdiy.info/wiki/CGS_gate_to_trigger_converter

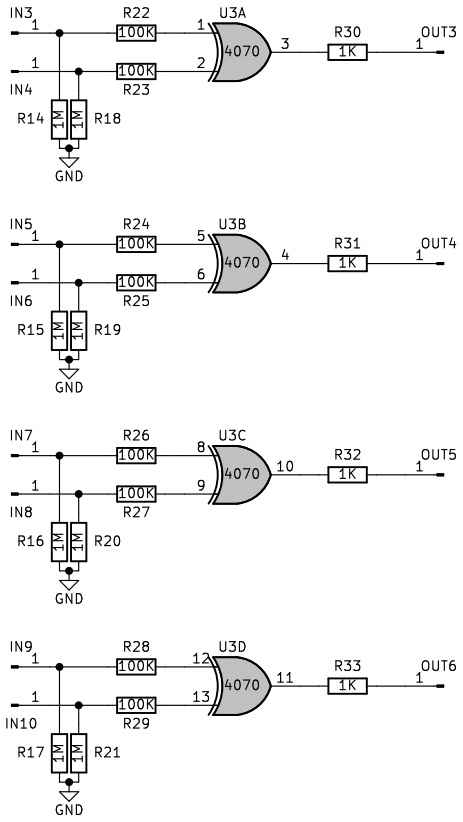


Performer adds a capacitor into the header pins.
Good values: 10nF to 220nF.
Bigger capacitance = longer trigger.
For better contact, use female headers with rounded holes like this:

Got it to work on the breadboard
but not on my perma-proto,
probably a build error

Daisy-Chainable XOR

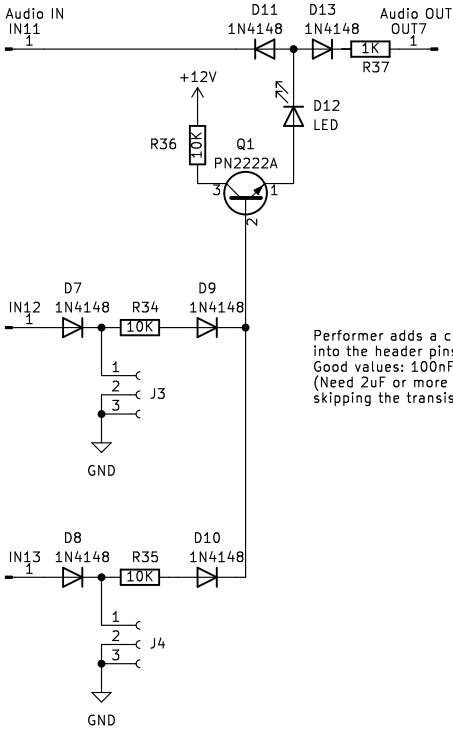
Physically arrange header pins "IIOIIOIIOIIO"
where I = input and O = Output, color-coding each group,
so performer can use jumpers to daisy chain XOR channels.



Using diodes or a transistor on the output
doesn't work. I dunno why.

Hi-Hat "Envelope" With "Choke"

Derivative of Elliot Williams' Logic Noise series.
Dirty way to go about it that sounds good in a dirty way.
I dunno why it works. Has not exploded yet.
https://hackaday.com/2015/04/10/logic-noise-more-cmos-cowbell/



Performer adds a capacitor
into the header pins.
Good values: 100nF to 470nF
(Need 2uF or more if
skipping the transistor)

Meant for my custom protoboard Rev 1.

I tried to also make the Twin-T filter described in the Logic Noise series but that circuit gave me a ton of trouble I had no clue how to diagnose. Built it a few times on breadboard with different results every time.

Aria Salvatrice

Sheet:
File: Percussions.kicad_sch

Title: Percussions Board [WIP]

Size: A4	Date: 2022-09-26	**Rev: 1E**
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