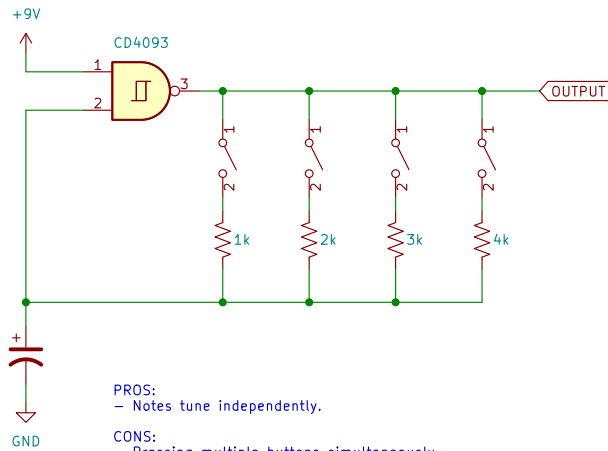


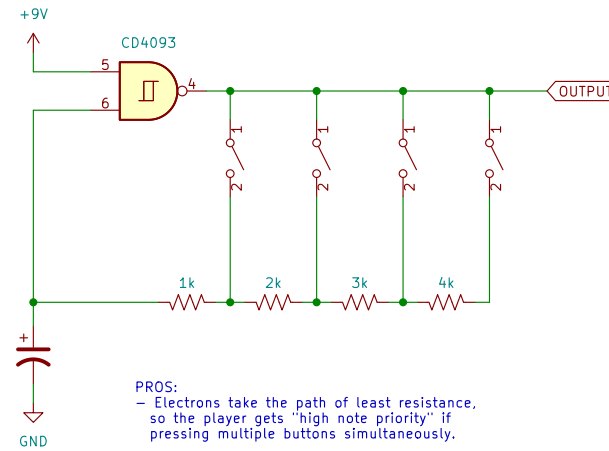
Resistors in Parallel



PROS:
– Notes tune independently.

CONS:
– Pressing multiple buttons simultaneously introduces new, probably unexpected frequencies.

Resistors in Serial



PROS:
– Electrons take the path of least resistance, so the player gets "high note priority" if pressing multiple buttons simultaneously.

CONS:
– Lower notes rely on tuning of higher notes. If a high note goes out of tune, so do all the notes under it.

NOTES:

- To make both of the schematics less confusing, their buttons' notes from left to right are high to low (ie, opposite what you'd expect from a piano). Open question: what can we do in the schematic so they're ordered intuitively?
- Resistor values are made up. They can be other values or pots, etc. Same for the cap.
- The CD4093 pins are arbitrary. The circuits will function the same on any of the NANDs, as long as it's powered!

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File: parallel_vs_serial.kicad_sch

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