

BMC037. Euro Buffer.

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I Features

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A.Parts List

B.The Board

I. Features

This is a very simple PCB for a 4 channel 1-to-3 buffer designed for Eurorack synthesizer systems. This would be an easy first project for a DIY synth newbie. The jacks are normalized so that if nothing is plugged into an input, it will automatically connect to the input to its left, except for the leftmost input. This allows you to take a single input and output to 12 jacks.

II. Schematics.

The schematic is produced on the next page. It consists of 4 input jacks. The tip of each jack goes to an op-amp wired as a unity buffer. Each of these buffers then has three 1K resistors each in series with an output jack. At the top we see the power connector, which is in series a 10 ohm resistor and that the power for the op-amps is filtered by a pair of 10uf capacitors and a pair of .01uf capacitors.

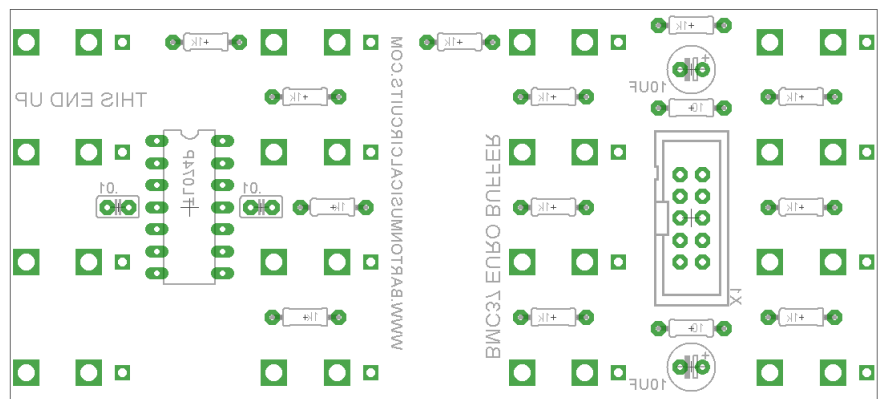
III. Construction

A. Parts List

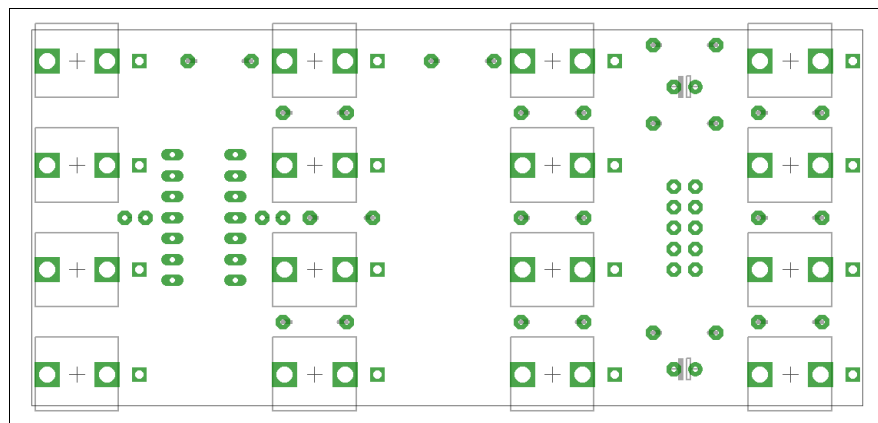
Value/Name	Quantity	Notes
TL074	1	or similar quad op-amp
10 ohm Resistor	2	1/4W metal film
1K resistor	12	1/4W metal film
Jack	16	Cheap 3.5mm jacks
.01uf capacitor	2	2.5mm spacing
10uf capacitor	2	12V rating or higher, 2.5mm spacing
Power Connector	1	

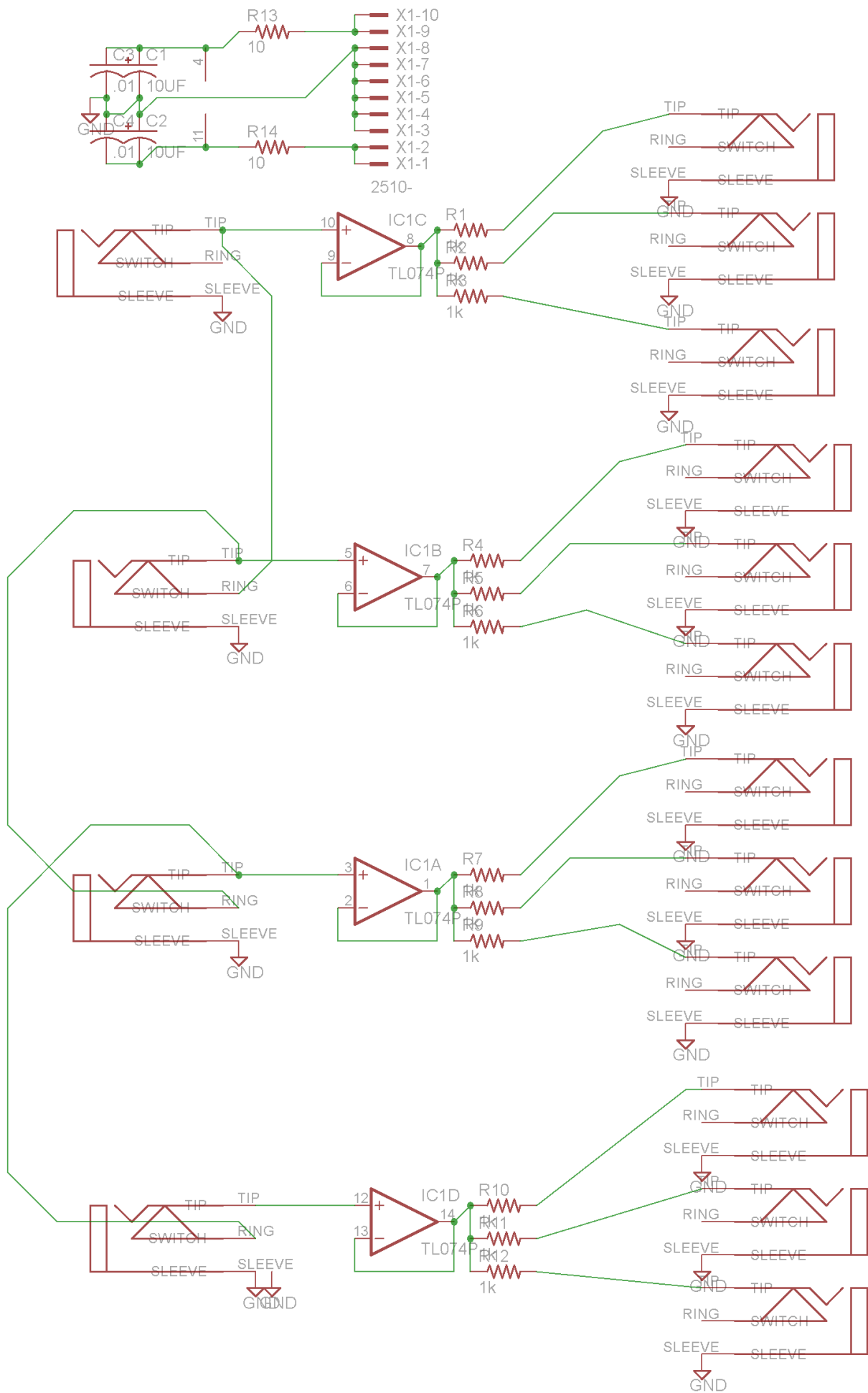
B. The Board

To the right is an image of the top of the PCB. It is 100mm x 46mm. The jacks are spaced 29mm x 12.5mm. I recommend wiring this half of the board first.



To the right is an image of the bottom of the PCB. Use a clipped resistor lead in the small hole for the jack to connect to the sleeve connector.





Below is a photo of a completed build. This is a prototype PCB, so the markings on a production PCB are slightly different. Note that only the back right sleeve connector is soldered. Because this is a metal panel, the rest of the sleeves are grounded through the metal of the panel connecting them to the back right sleeve.

