

## Bill's TinyMixer

Do not order all the BOM but select what you need according to how you will use the TinyMixer. Suppliers are suggestions, except Thonk's stereo pots the parts are easy to source from other suppliers.

The resistors and pot values are suggestions, thanks to the circuit's simplicity, vertical resistors and pots value is not critical and can be modified.

The horizontal resistors in series with the LEDs should be selected according to the LED type and desired brightness. The LEDs work with CV signals only.

The Cliff jack sockets fit both minijack and tinijax plugs.

To use the TinyMixer **mono**, use normal pots and mono jack or banana sockets. Solder the 3 vertical resistors next to the pots, the ones next to the sockets are not needed.

Banana sockets can be mounted horizontal to the pad on the rear or vertical to the slots. The pad behind the first pot and slot near the LED are for the ground connection.

Mono minijack sockets should be mounted near the edge.

To use the TinyMixer **stereo**, use dual gang pots and stereo jack sockets. Solder the 6 vertical resistors next to the pots and to the sockets.

The LEDs don't work with audio signal, only with CV and attenuate the signal. Are fun but not essential.

The right input can be used as a CV input to turn the mixer into a vactrol-based VCA.

Banana and jack sockets can be mixed.

Thank you and happy building !

### BOM

| Part   | Quantity               | Supplier suggestion  |
|--|------------------------|----------------------|
| 330ohm resistor (vertical ones in series with the pot) | 6 (stereo) or 3 (mono) |                      |
| 1k resistor (horizontal ones in series with the LEDs)  | 2 (stereo) or 1 (mono) |                      |
| 3mm LED  | 2 (stereo) or 1 (mono) |                      |
| Johnson / Cinch banana socket                          | 5                      |                      |
| Cliff FCR1295 stereo jack socket PC mount              | 4                      |                      |
| Cliff CL1384 mono jack socket PC mount                 | 4                      |                      |
| Alpha 9mm pot 5k to 100k (lin or log)                  | 3                      |                      |
| Alpha 9mm pot dual gang 50k or 100k (lin or log)       | 3                      |                      |
| Vactrol for VCA mode (select for desired response)     | 1                      |                      |
| Small 2k7 resistor for VCA mode                        | 1                      |                      |
| Banana gender changer                                  |                        | <a href="#">eBay</a> |
| Minijack stereo gender changer                         |                        | <a href="#">eBay</a> |

## VCA

1. Put a 2k7 resistor between the 2 rightmost vertical resistors spots
2. Cut the bottom trace located to the right (looking from bottom side) of the ground banana slot
3. Solder the vactrol LED + leg to the left pad of the bottom horizontal resistor spot
4. Solder the vactrol LED - leg to the left pad of the bottom LED spot
5. Solder the vactrol LDR legs across the cut trace, to the top pad of the rightmost top resistor spot and to the left pad of the top horizontal resistor



