



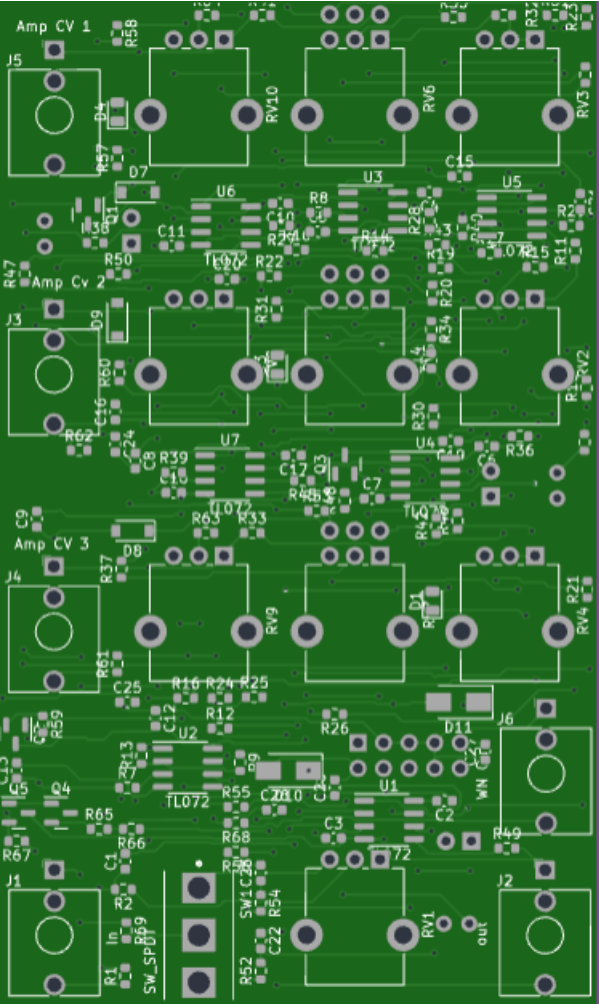
## BOX OF ANGELS BUILD DOC

Box of angels is a three stages bandpass/bandpassgate with integrated noise source. It can be used as a bandpass filter in three stages, as a bandpass gate/crude VCA, as a separate dirty noise source. The noise source is normalised to the input giving you the opportunity to use it as a sound source on its own. There is also a dedicated noise output if you want to use the dirty noise with other modules in your rack.

Building this is as straight up as it gets. I usually start with the LDR and Leds, Just make sure they are touching, either through the swan neck config of the led, or just by letting the LED point upwards and the LDR "hugging" it from the side. It doesn't really matter as long as they are as close to each other as possible. I solder the power connector next.

Then I place all pots, jacks and switch and solder ONE point from the top. Only pitfall with this build is that the SMD components are quite crowded so accidentally touching one with the soldering iron is possible (I've been close a couple of times). If you have a smaller tip for SMD it might be good to use it (I use a regular size tip). After soldering one point on each component I attach the panel with a few of the nuts. Then flip it over and go through the whole board, carefully checking I get got solder points on each component. That's pretty much it.

No calibration or other hassle is needed. Have fun.



BOM

Designator	QTY	INFO	Product link
J1-J6	6	Jacks	thonk, tayda, aliexpress: <a href="https://www.thonk.co.uk/shop/thonkiconn/">https://www.thonk.co.uk/shop/thonkiconn/</a>
RV5, RV6, RV7	3	10k Dual pot LIN, 9mm alpha 9mm, T18	<a href="https://www.thonk.co.uk/shop/alpha-9mm-pots-vertical-t18/">https://www.thonk.co.uk/shop/alpha-9mm-pots-vertical-t18/</a>
RV1, RV8-10	4	100k Lin pot, 9mm alpha T18	<a href="https://www.thonk.co.uk/shop/alpha-9mm-pots-vertical-t18/">https://www.thonk.co.uk/shop/alpha-9mm-pots-vertical-t18/</a>
RV2-4	3	50k Log Pot, 9mm Alpha T18	<a href="https://www.thonk.co.uk/shop/alpha-9mm-pots-vertical-t18/">https://www.thonk.co.uk/shop/alpha-9mm-pots-vertical-t18/</a>
R4-R6	3	GL5539 LDR	<a href="https://www.ebay.com/sch/i.html?_from=R40&amp;_trksid=p2380057.m570.l1313&amp;_nkw=GL5539&amp;_sacat=0">https://www.ebay.com/sch/i.html?_from=R40&amp;_trksid=p2380057.m570.l1313&amp;_nkw=GL5539&amp;_sacat=0</a>
D2, D5, D6	3	5mm LED Flat top Red (or orange)	<a href="https://www.ebay.com/itm/265129617063?hash=item3dbaf4e6a7:g:1J">https://www.ebay.com/itm/265129617063?hash=item3dbaf4e6a7:g:1J</a>
SW1	1	Switch on/on	<a href="https://www.taydaelectronics.com/mini-toggle-switch-spdt-on-on.html">https://www.taydaelectronics.com/mini-toggle-switch-spdt-on-on.html</a>
For RV1-7	10	Must be Black	<a href="https://www.thonk.co.uk/shop/micro-knobs/">https://www.thonk.co.uk/shop/micro-knobs/</a>