

## Mikrophonie Build Document

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To: Thonk Blog <info@thonk.co.uk>

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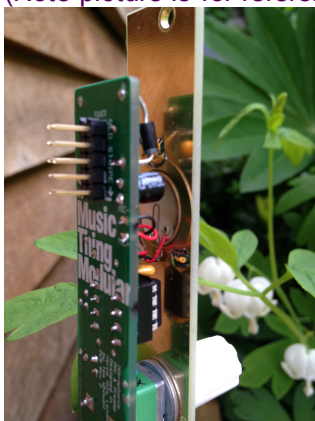
A fully illustrated build document aimed at beginners is due next week, if you are new to DIY please wait for the build document or proceed at your own risk!

### Mikrophonie Build instructions

#### Not for beginners

(note there are images embedded inline in the body of the email, if you can't see these let me know)

1. Solder the ten pin power connector to the rear of the PCB. The side that has Music Thing Modular printed on in silkscreen. Do not get this wrong!  
(Note picture is for reference only, this is a fully completed build.)



2. Solder all 6 resistors
3. Solder the two Orange diodes into positions D3 and D4.  
*The black stripe on the component should match the white stripe of the silkscreen.*



4. Solder the two Black and silver diodes, D5 and D6, into place.  
*The silver stripe on the component should match the white stripe of the silkscreen.*



5. Solder the IC socket into place  
*Ensuring the notch in the socket matches the notch on the PCB.*
6. Solder the two small orange 100n caps into positions C4 and C5.



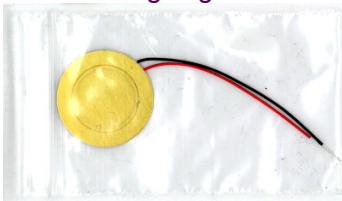
7. Solder the two larger orange fuses into the positions marked FUSE either side of the black and silver diodes.



8. Solder the two electrolytic capacitors into positions C1 and C2  
*Note that the shorter -ve lead should go into the pad marked with a minus on the PCB. If you don't understand this, stop now as incorrect orientation will damage or destroy the module.*



9. Next position the green pot and jacks in position, but DO NOT SOLDER yet.  
*Put the white plastic washer onto the pot shaft.*
10. But the panel in place and hand tighten the nuts on the pots and jacks, discard the metal pot washer.
11. Now solder the pots and jacks.
12. Remove the panel again.
13. You're now going to solder the piezo disc to the front panel.

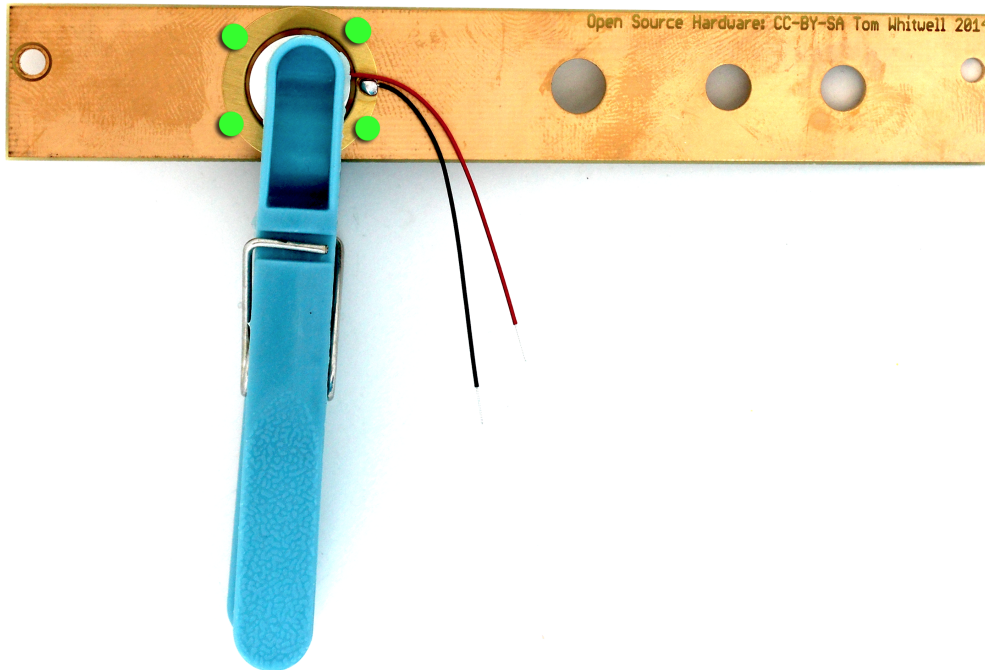


14. Hold the disc in place with a clip or similar (see below). It should be pretty much centred with the spiral pattern on the front of the panel. If you are concerned about soldering it completely centrally or if there is too much overhang you might want to slightly trim square edges either side of the piezo, but nothing more than 1mm.

The green dots below are suggested solder points. The piezo disc ideally needs to be soldered so it's

making as much surface area contact as possible. Two diagonal solder points will be enough, I wouldn't advise only making one joint. Be very careful not to melt anything you are clipping with! Ideally the clip should only touch the white area on the piezo and the front surface of the panel.

If you have got a lot of fingerprints on the area to solder to on the panel (or the piezo disc) you might want to clean it with isopropyl alcohol first. If you have a flux pen then carefully applying to the panel surface first will help you solder also but it isn't vital.



15. Solder the red wire to the rear of the PCB on the pad marked MIC+  
*You could shorten the wires if you feel confident, but it'll make removing the panel again to solve problems potentially tricky, or even require desoldering.*
16. Solder the black wire to the rear of the PCB on the pad marked MIC-
17. Remove the IC from the pink packet with yellow sticker and fit into the IC socket, ensure that the circular depression in the IC is at the same end as the notch in the socket. If you don't understand this, stop now as incorrect orientation will damage or destroy the module.
18. Put the panel back in place, tighten the 3 nuts on the pot and jacks and affix the knob.
19. Attach the power cable, the red stripe position is clearly indicated on the PCB. The circuit is protected against powering up with the cable accidentally reversed, but only if it was built correctly in the first place!

You are finished, next you should read the attached PDF. There is more information, videos, schematics, gerbers, BOM available here

[http://musicthing.co.uk/modular/?page\\_id=973](http://musicthing.co.uk/modular/?page_id=973)

And for all build problems discussion etc. please go here

<http://www.muffwiggler.com/forum/viewtopic.php?t=114727&highlight=mikrophonie>

Thanks

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