



THONK SYNTH T05 TAT

TRIPLE ATTENUATOR

Eurorack DIY Kit
Build Instructions



OVERVIEW

For the most recent version of this document please visit

<https://www.thonk.co.uk/shop/thonk-synth-t05-tat-kit/>

This document should be used in conjunction with the relevant user manual.

All Thonk kits are sold under our standard Terms and Conditions -
<http://www.thonk.co.uk/faq/>

DIY INSTRUCTIONS

This document gives detailed instructions that assume you have purchased a complete kit from www.thonk.co.uk. It also assumes no previous knowledge of electronics. To learn to solder try http://youtu.be/l_NU2ruzyc4 and the **Adafruit guide to excellent soldering** – <http://bit.ly/1l77tF4>

Watch and understand that whole YouTube video! If you're not achieving the results shown in the video then you need to buy new tools or seek advice.
You will not end up with a working module otherwise.

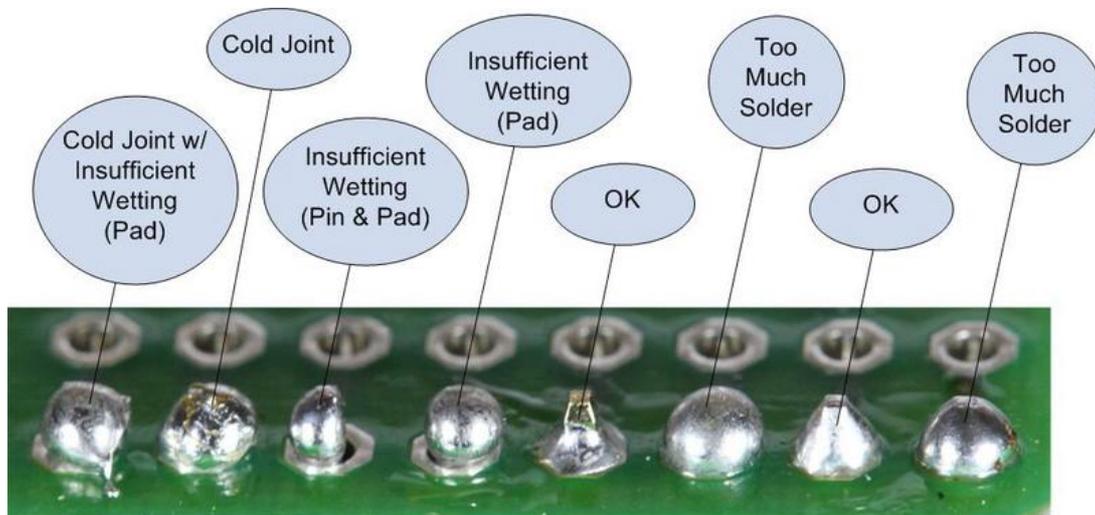
TOOLS REQUIRED

Solder, soldering iron, masking tape, diagonal cutters AKA snips AKA side-cutters. Thonk sell a range of inexpensive tools here - <http://bit.ly/1jxqF3n>

SOLDER JOINTS

Your solder joints should look like those shown as 'OK' below, they should have that neat conical shape on **BOTH sides of the PCB**. If they don't look the same on both sides then stop! Work out why from the soldering guides linked and don't continue until you are getting those results.

This isn't just OCD talking, you are very likely to end up with a destroyed, damaged or defective unit if you're not hitting that standard.



This photo is from the [Adafruit guide to excellent soldering](http://adafruit.com/guides/quickstart/soldering) and is reproduced under an Attribution-Sharealike creative commons license - <http://creativecommons.org/licenses/by-sa/3.0/>



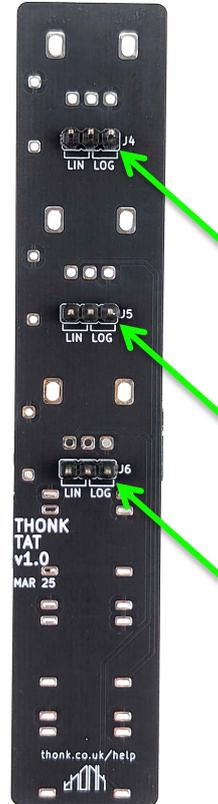
BUILD INSTRUCTIONS

1.

First take the PCB and place the three 1x3 male headers to the rear of the board as pictured.

Ensure the headers are placed on the side with the 'LIN' and 'LOG' footprints.

DON'T SOLDER YET



2.

Solder each header into place double checking they are placed on the correct side.

If you have trouble keeping all three headers in place simultaneously then we recommend soldering each header one at a time.

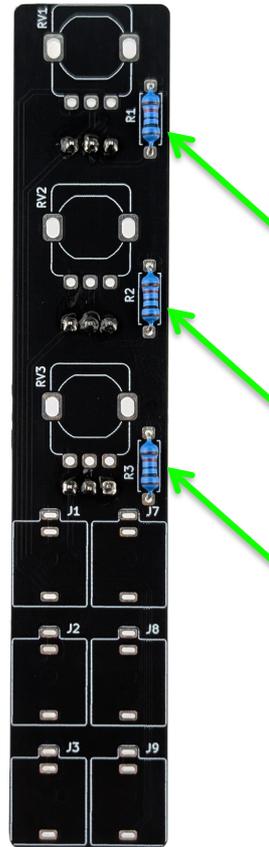




3.

Locate the three 10k resistors and place onto the opposite side of the PCB to the headers as shown.

Solder the resistors from the back of the PCB ensuring they are positioned as pictured.



4.

Trim the resistor legs using a pair of side cutters so that the points become small peaks.

These joints shouldn't be made flat but small peaks similar to the 'OK' examples on page 3 of this doc.

Wear safety goggles when using side cutters.





5.

Next locate the 6 jacks and 3 pots, remove the nuts and place on the board as pictured.

Make sure all the jack legs are placed securely into the pads, you may have to squeeze some legs slightly or use tweezers to help position them correctly.

DON'T SOLDER YET

Follow the remaining steps before resuming soldering at step 8.



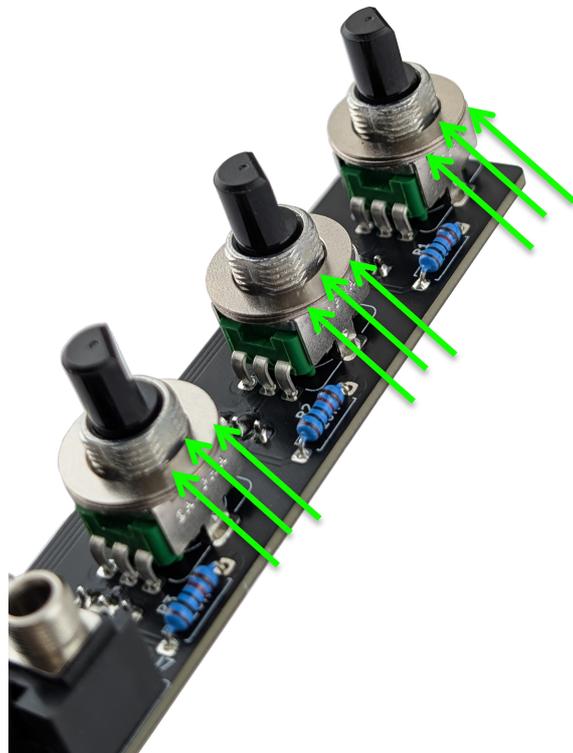
6.

Place three of the provided silver washers onto each of the green pots as shown.

These will keep the components level between the panel and PCB.

DON'T SOLDER YET

Follow the remaining steps before resuming soldering at step 8.



7.

Place the panel over the pots and jacks being sure all parts line up correctly and are still sitting on the PCB.

Screw the knurled nuts back onto the jacks and black nuts onto the pots to secure the panel.

Tighten firmly but be careful not to overtighten else you might pull the components off the board.

DON'T SOLDER YET

Follow the remaining steps before resuming soldering at step 8.



8.

Flip the board back over before soldering one joint on each component.

Ensure all components are sitting flush to the board as pictured.

Use your soldering iron to reflow and adjust any joints if necessary before proceeding.





9.

If you are happy with the alignment of the components on the panel then solder the remaining joints on the back of the board.

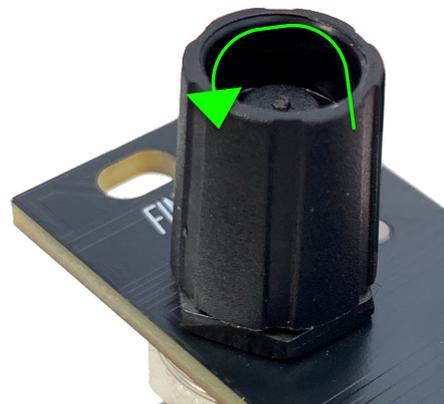
There should be 26 joints remaining to solder



10.

For the next step find the knobs and knob caps which come as separate pieces.

First place each knob onto the pot, with the pot turned fully counterclockwise. This is your 'zero' point for the knob.



From here you can clip on the cap – lining up the pointer and indent on the knob at the zero point.





11.

For the final step place the three red jumpers onto the 1x3 pin headers in the LIN position as pictured.



12.

The module is now complete – follow the steps detailed in the user manual on the different modes that can be used on your new Think Synth TAT.

Find the manual and other product info on the Thonk website.

<https://www.thonk.co.uk/shop/thonk-synth-t05-tat-kit/>

