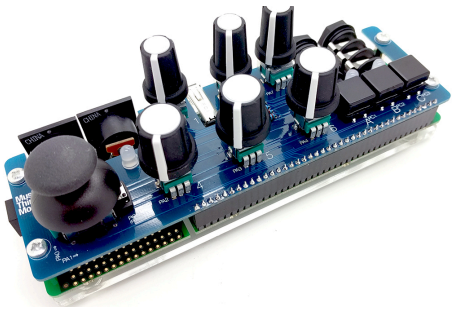
Music Thing Modular Axocontrol OVERVIEW

For the most recent version of this document please visit – https://thonk.co.uk/documents/axocontrol/

Refer also to the Music Thing documentation here - https://github.com/TomWhitwell/Axo-Control

For all technical support please visit this thread on the Axoloti forums - http://community.axoloti.com/t/minimal-knob-button-joystick-led-board/889



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 https://www.youtube.com/watch?v=IpkkfK937mU 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 unit otherwise.

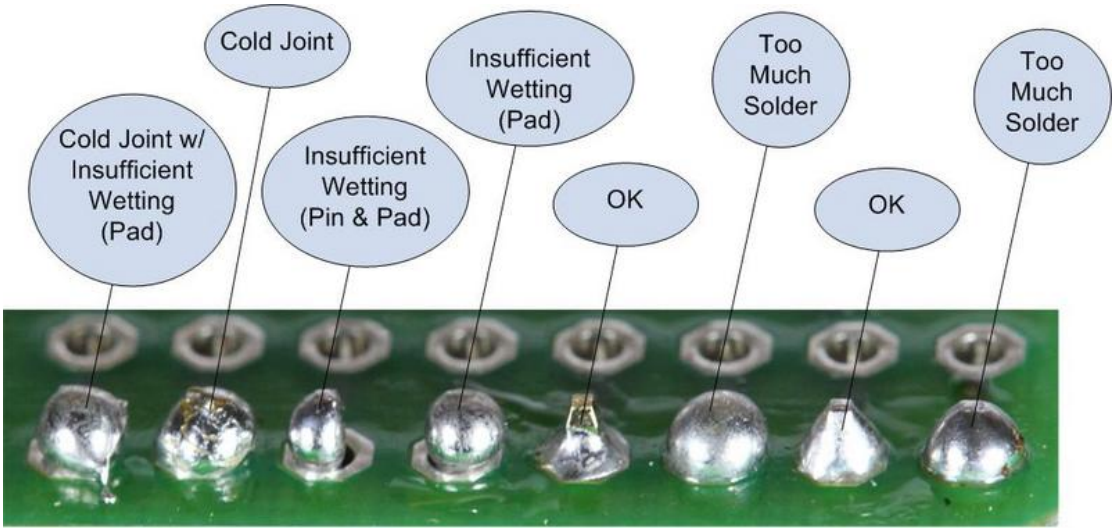
TOOLS REQUIRED

Soldering iron, snipe nose pliers, wire strippers, small flat head screwdriver and diagonal cutters AKA snips AKA side-cutters. A Digital Multimeter is always helpful for checking for bad solder joints and continuity. 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 about perfectionism, you are very likely to end up with a destroyed, damaged or defective unit if you're not hitting that standard.

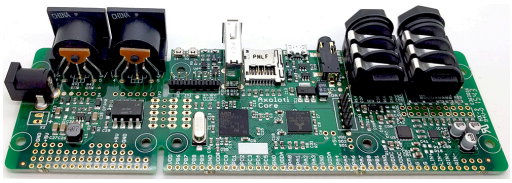


This photo is from the **Adafruit guide to excellent soldering** - http://bit.ly/1l77tF4 and is reproduced under an Attribution-Sharealike creative commons license - http://creativecommons.org/licenses/by-sa/3.0/

AXOCONTROL BUILD INSTRUCTIONS

1.

If you have not verified that your Core Axoloti board is working then **you must do that first** before building or mounting the Axocontrol.



2.

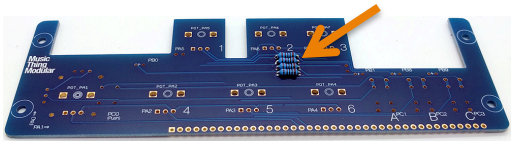
Visit http://community.axoloti.com/t/quick-start-guide/57 for the Axoloti **Quick Start Gude**. Once you have verified you can power the board, load demo patches from your computer and ***hear audio*** then proceed with the Axocontrol build.

NOTE!

THE AXOLOTI CORE USES A CENTRE POSITIVE PSU! DO NOT PLUG A CENTRE NEGATIVE GUITAR PEDAL PSU IN! WE RECOMMEND USB POWER.

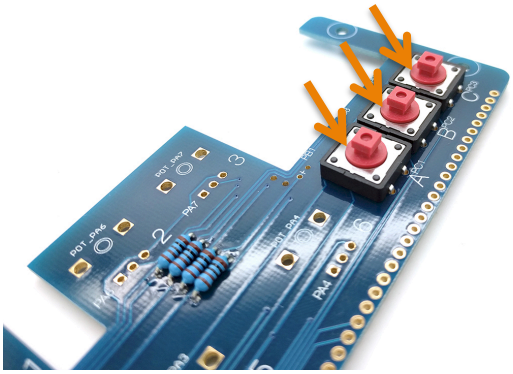
3.

Start by soldering the four 1K resistors into the positions shown. Ensure your solder joints are meeting the standards laid out on page 2.



4.

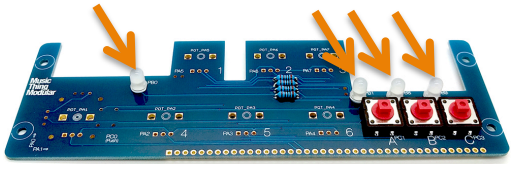
Next solder the three mechanical switches into place as shown.

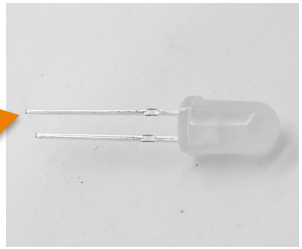


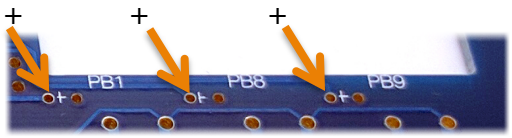
5.

Now solder the 4 LEDs into place.

NOTE! Correct orientation of this part is vital. The **longer** lead (or 'Anode') of the LED must go into the hold on the PCB marked with a + symbol.

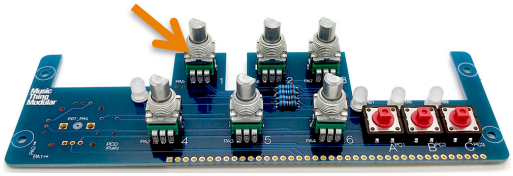






6.

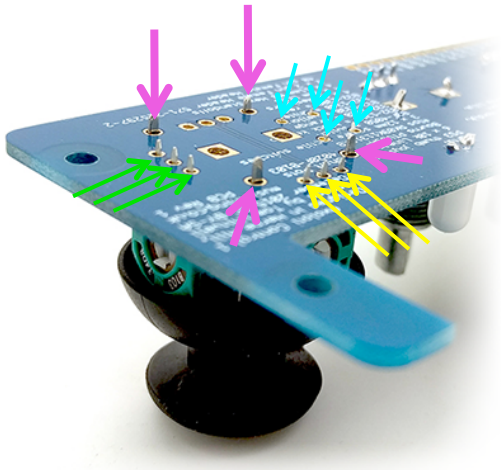
Now solder the six pots into position as shown.

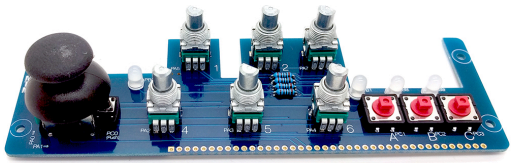


7.

Next you'll solder the joystick into place, it has 14 pins to solder. It can take 5-10 minutes to just carefully bend/adjust all the pins gently so they all push through the board at once, take your time! The joystick only fits in the orientation shown.

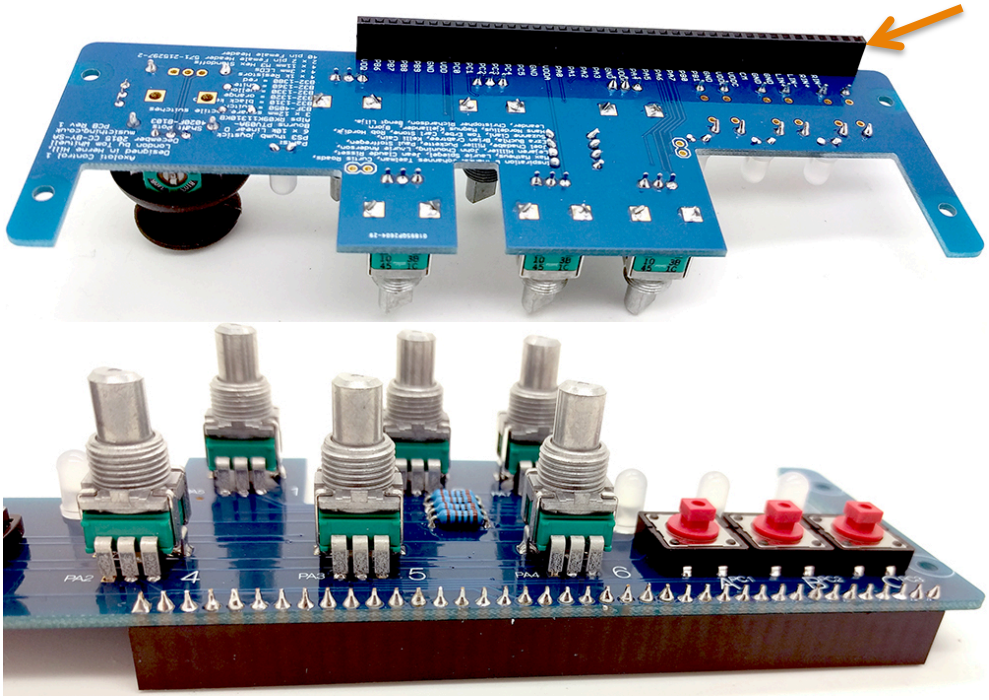
3 pins – West East axis
3 pins – North South axis
4 pins – Switch
4 pins – Mechanical mounting pins





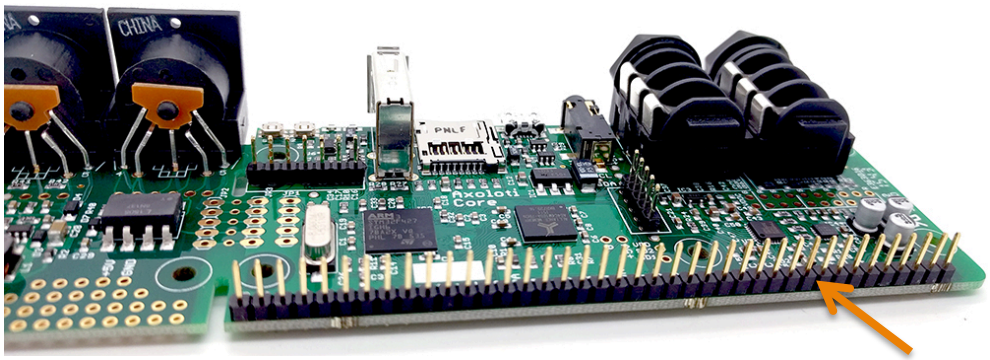
8.

Next solder the 40 pin female header into position as shown.



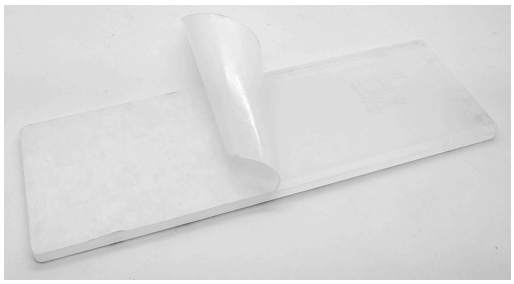
9.

Next solder the 40 pin male header to Axoloti Core board as shown.



10.

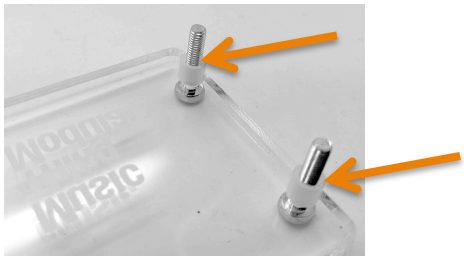
Take the acrylic baseplate and peel all the protective paper and plastic off both sides.



11.

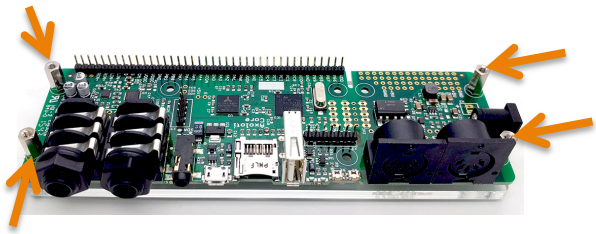
Push the four long machine screws through from the bottom of the baseplate (with the reversed **Music Thing Modular** logo on top).

Put one of the four small plastic cylindrical spacers onto each screw.



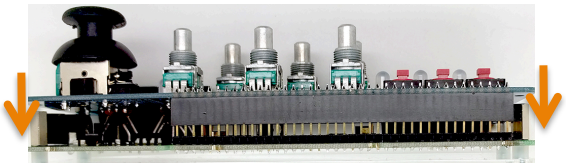
12.

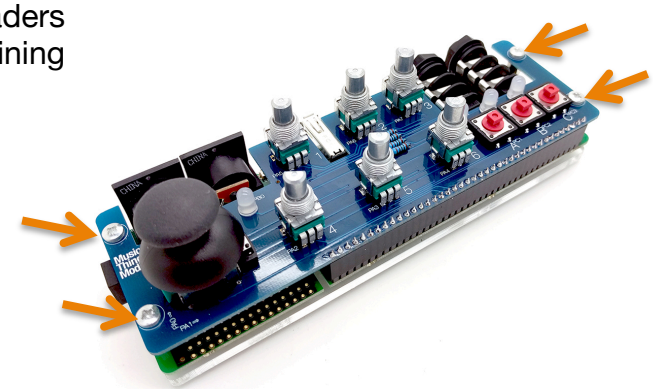
Place the core Axoloti board onto the 4 long screws and hand-tighten the four metal hex-spacers as shown.



13.

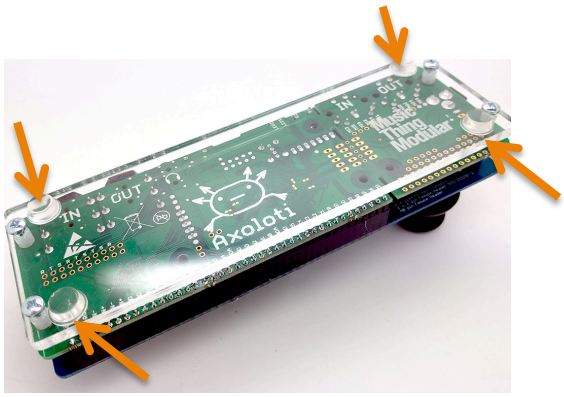
Mount the Axocontrol board onto the Axoloti core board as shown, mating the male and female headers carefully. Screw the smaller remaining screws into place to secure.





14.

Flip the unit over and stick the four adhesive rubber feet into position as shown. Ensure the baseplate is free of dirt or dust before sticking the feet down.



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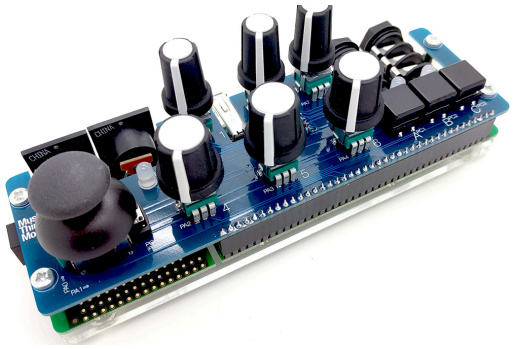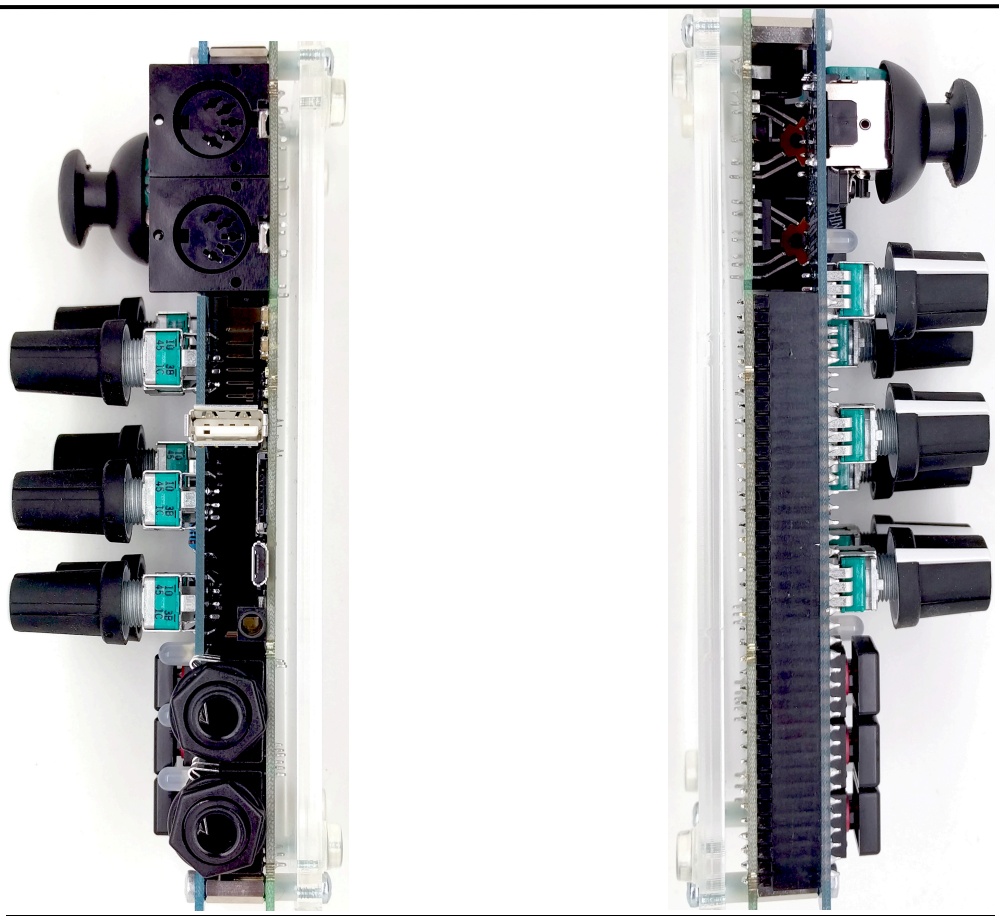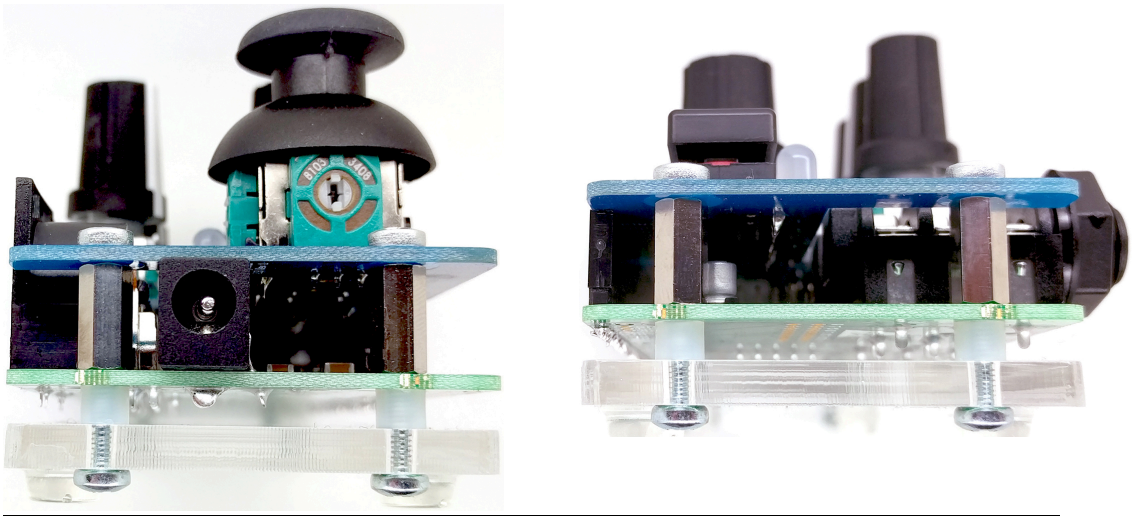
Put the six knobs and the three switch caps on and you're ready to go.