



# wonkystuff/Hot Air BioT Assembly Instructions

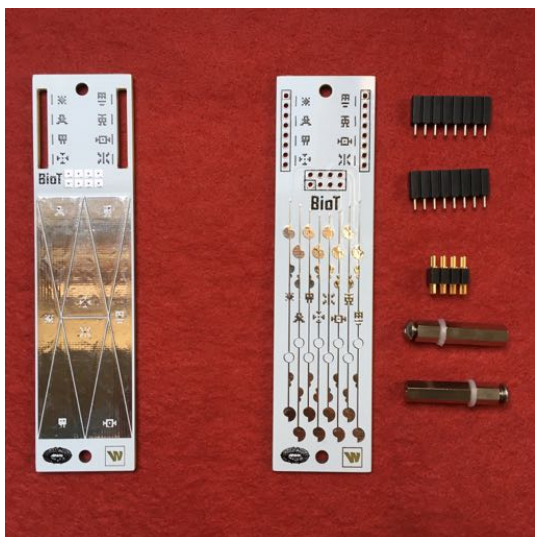
Thanks for buying the **BioT**, a touch-pad interface module for the *AE Modular* synthesis system.

*These instructions are a work in progress. If they are unclear, or there are any mistakes, or you just want to say 'hello', please email us at [info@wonkystuff.net](mailto:info@wonkystuff.net), or message us via facebook or twitter. Our website is <https://wonkystuff.net/>.*

There is a basic requirement that your soldering skills are up to scratch (I'm sure they are). If you need a reminder, you could do worse than to take a look at this soldering tutorial over at [adafruit.com](https://learn.adafruit.com/adafruit-guide-excellent-soldering/): <https://learn.adafruit.com/adafruit-guide-excellent-soldering/>

## Parts List

Before starting, make sure that you have all of the parts listed below.



Count	Part	Description
1	PCB	Where the components are soldered...
1	Panel	Interaction Layer
2	AE Modular Connectors	Where patch-wires plug
1	Sprung Connector	Electrical connection 'twixt PCB and Panel
2	Legs	Pillar, Standoff, Spacer, Screw

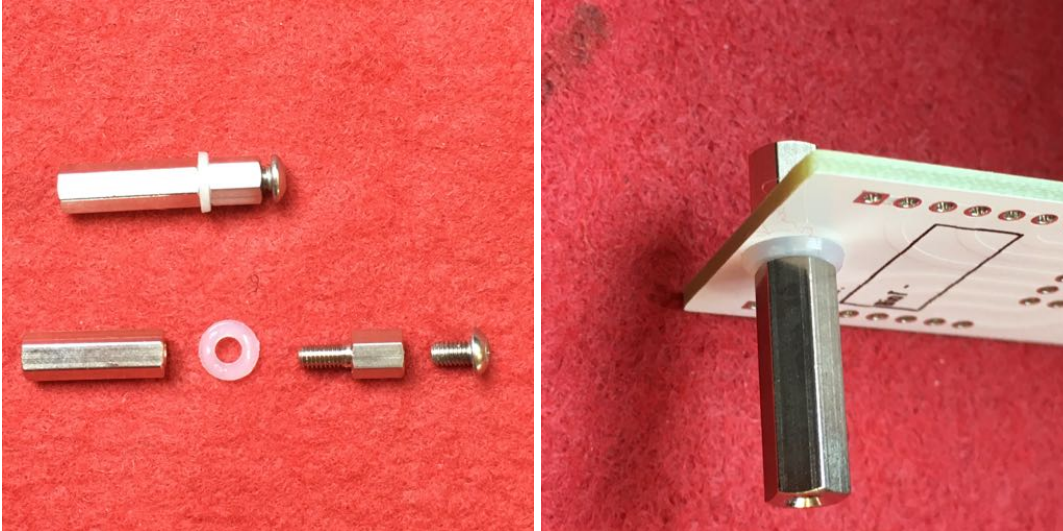
You'll also need a soldering iron, some solder, a suitable hex-key (to tighten the screws), and a space to work in.

## Assembly

Note that there is no soldering until the last stage!

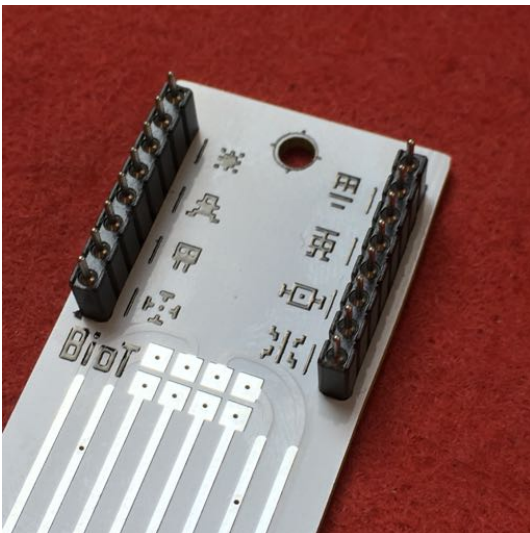
### Assembly 1: Legs

First step is to attach the legs to the main PCB, ensuring that the spacer is the correct side of the PCB:



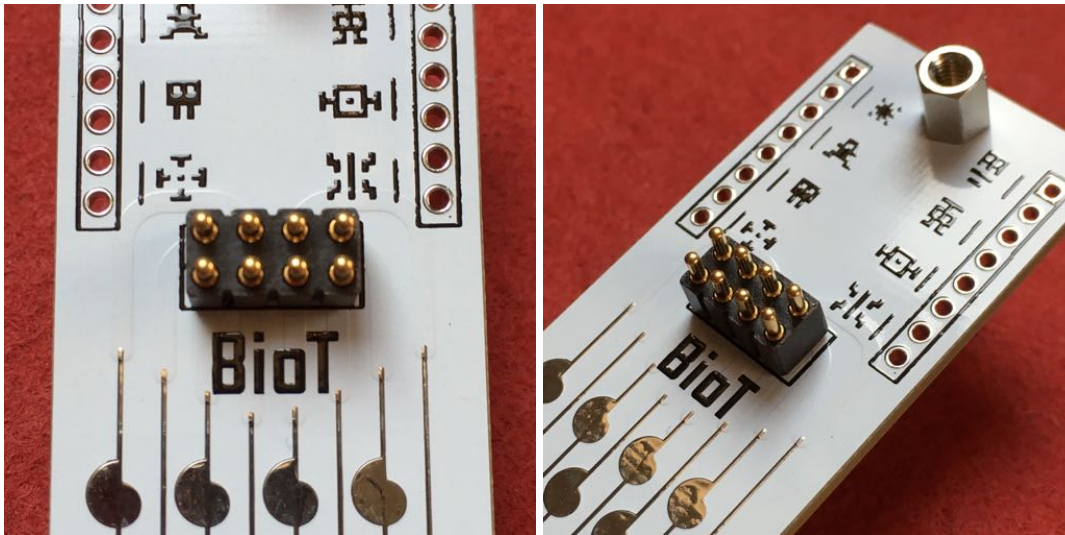
### Assembly 2: AE Headers

Put the headers into the front panel slots (they may go in easily or have a slight friction fit). Make sure that the top of the connectors line up with the front panel as this is how we ensure the correct panel alignment.



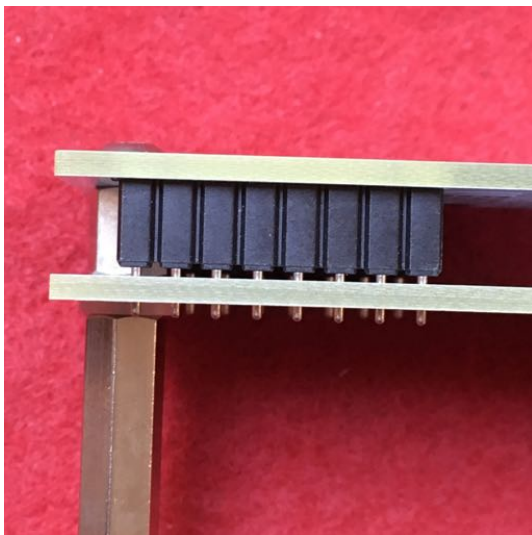
### Assembly 3: Sprung Connector

On the main PCB (with the legs) place the sprung connector in position... **making sure that the correct end (i.e. 'springy') of the sprung connector is facing up.** The easiest way to check is simply by pressing on the pins when it is in the board – you should be able to feel the pins compress.



#### Assembly 4: Joining Panel and PCB

Bring the panel (with AE headers in place) together with the PCB (with legs and sprung connector in place). Fasten the panel to the top of the legs with the screws. The AE headers will have a slight gap:



*The sprung connector should compress slightly to make contact with the 8 pads on the panel - If the panel offers too much resistance, check the orientation of the sprung part!*

#### Assembly 5: Soldering (Finally!)

Now that everything is lined up, it's time to solder. The panel will hold the parts in place on the PCB (make sure that the AE headers are lined up to your satisfaction). Once soldering is completed, you can decide which touch interface design to use, or whether to expose the internals:



Each panel has different touch characteristics due to differing surface area etc.

## Done!

There is no right or wrong way of using **BioT**; we're interested in seeing what uses you put it to... just play!

