

# ASCOLTA

build guide  
difficulty: ☆<sup>1</sup>



Hi fellow!  
Just a quick intro before starting,

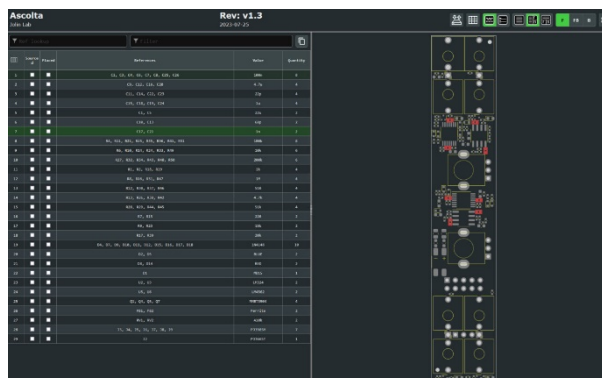
## what to have on hand

1. Soldering Iron - better with temperature control
2. Solder wire
3. A pair of tweezers
4. Multimeter (optional)
5. Solder sucker / wick (optional)
6. Silicone soldering mat (optional)
7. Helping hands (optional)
8. Flux (optional)

If you want to refresh yourself a bit about soldering stuff you can watch [this video](#)<sup>2</sup> by GreatScott!

A tool that can help you checking the components on the board is the interactive bill of materials.

Download the .html *ibom* file and open it with a browser. You can use it to check where a component is located on the board. Once downloaded it works fine also offline.



Here are listed all the ASCOLTA components; most of them are already pre-soldered on the surface of the board (SMD). We just need to solder the through hole ones (THT).

### BE CAREFUL NOT TO TOUCH THE SMD COMPONENTS WHILE SOLDERING THE THT ONES.

It's really easy to lose a tiny SMD resistor or capacitor. Pay attention when soldering parts that are close to others already in place.

<sup>1</sup> 1/5-star modules are a good choice for a beginner. Even as first ever DIY.

<sup>2</sup> <https://www.youtube.com/watch?v=VxMV6wGS3NY>

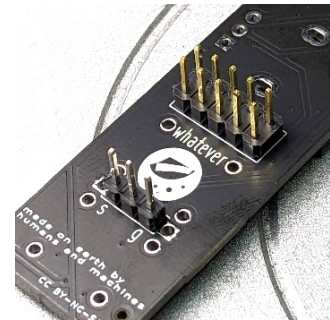
now let's begin starting from the bottom layer – the back of the module.

### eurorack power header + 1x3 pin header

Place the socket and the header matching the drawing on the PCB. Longer pins needs to point outside.

*tip: solder one pin and check. If the socket is aligned with the PCB solder all the other pins.*

1	J1	Conn_02x05_2.54mm
1	J10	Conn_01x3



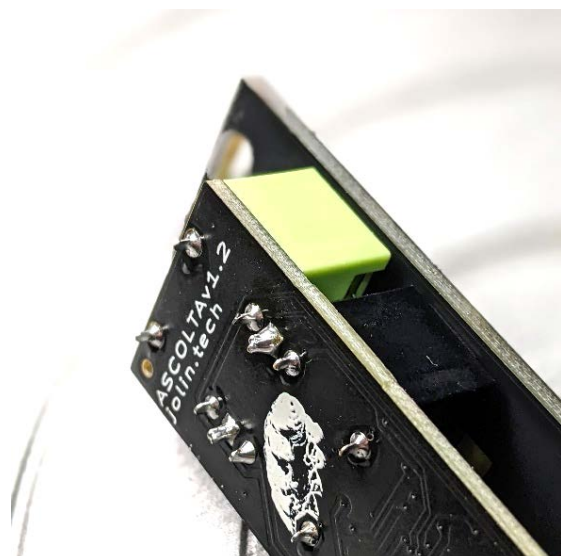
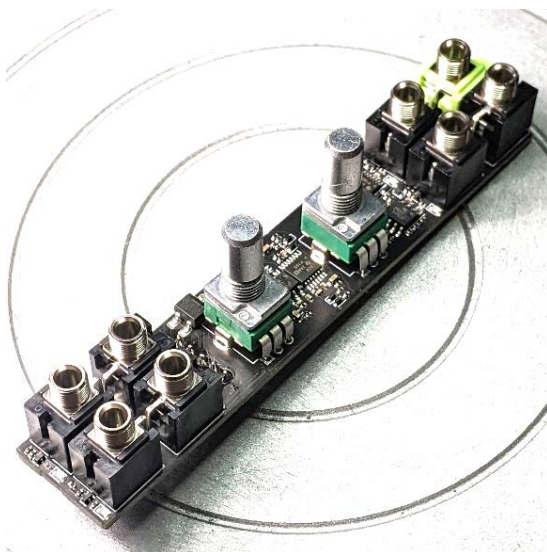
now flip the board (front layer):

### jack sockets, stereo socket, potentiometers

Wait to solder them: just place all of them in the right place and move to the next step.

*be careful on the position of the green socket. Follow the pictures.*

2	RV1, RV2	A10k - potentiometers
1	J2	PJ366ST – green socket
7	J3, J4, J5, J6, J7, J8, J9	PJ398SM aka “Thonkiconn”



Position the **jumper** - the squared black piece of plastic - on the three pins header.  
Refer to the *manual* to choose where depending on your normalization needs.

## front panel

At last, put the panel on - check its direction - and tighten the nuts.

**Now solder all the front panel components.**

*tip: we are soldering them now to ensure that all the mechanical parts are aligned with the panel. This reduces the stress to the components.*

*check if everything is in place and properly soldered.*

Place the knobs, tighten the screws and we are officially done!

*An easy one this time.*

## before powering it up

- Check the power header for shorts with a multimeter.  
*tip: follow [this tutorial](#)<sup>3</sup> by Quincas Moreira - aka SynthDiyGuy if you have any doubts on how to perform this procedure.*
- Mind the polarity on the header socket of your PSU, **remember that red line is -12v**



done! enjoy your new  
**ASCOLTA**

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<sup>3</sup> <https://www.youtube.com/watch?v=qS0SoliiQCo>