

# AGOGÔ

build guide v1.1



difficulty: \*\*\*

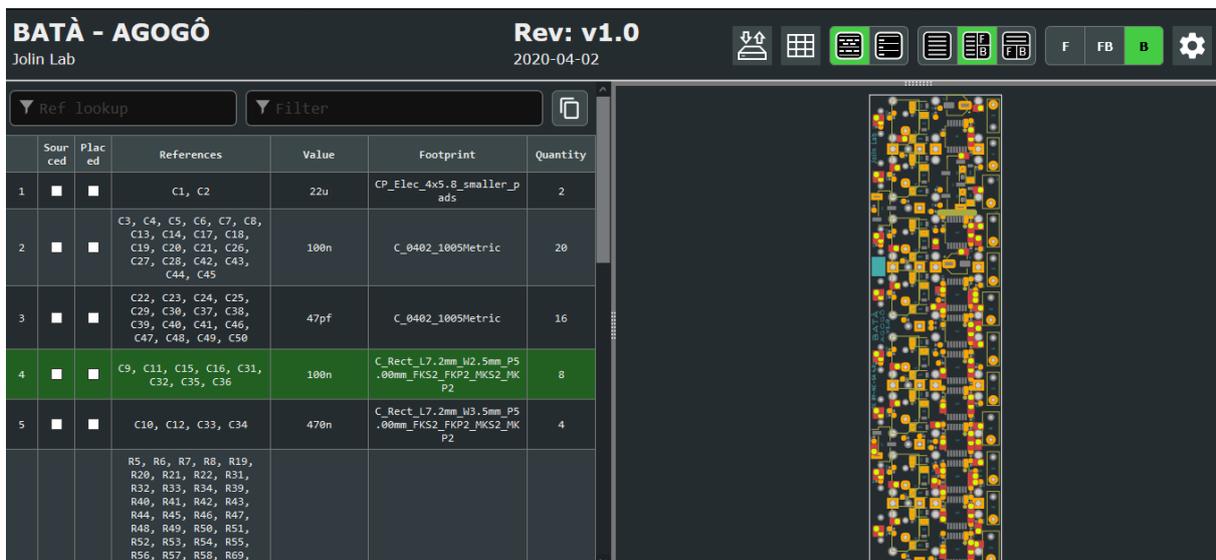
Hi fellow!

Just a quick intro before starting,

A useful tool that can help you find the components on the board is the interactive BOM linked here:

[tinyurl.com/agogo-bom](http://tinyurl.com/agogo-bom)

Download it and open the `.html` file with a browser. You can use it to check where a component is located on the board. It works also offline.



	Sour ced	Plac ed	References	Value	Footprint	Quantity
1	<input type="checkbox"/>	<input type="checkbox"/>	C1, C2	22u	CP_Elec_4x5.0_smaller_pads	2
2	<input type="checkbox"/>	<input type="checkbox"/>	C3, C4, C5, C6, C7, C8, C13, C14, C17, C18, C19, C20, C21, C26, C27, C28, C42, C43, C44, C45	100n	C_0402_1005Metric	20
3	<input type="checkbox"/>	<input type="checkbox"/>	C22, C23, C24, C25, C29, C30, C37, C38, C39, C40, C41, C46, C47, C48, C49, C50	47pf	C_0402_1005Metric	16
4	<input type="checkbox"/>	<input type="checkbox"/>	C9, C11, C15, C16, C31, C32, C35, C36	100n	C_Rect_L7.2mm_W2.5mm_P5_08mm_FKS2_FKP2_MKS2_MK_P2	8
5	<input type="checkbox"/>	<input type="checkbox"/>	C10, C12, C33, C34	470n	C_Rect_L7.2mm_W3.5mm_P5_08mm_FKS2_FKP2_MKS2_MK_P2	4
			R5, R6, R7, R8, R19, R20, R21, R22, R31, R32, R33, R34, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100			

Here are listed all the AGOGÔ components, most of them are already pre-soldered on the board. We just need to solder a few surface components and all the through hole ones.

**BE CAREFULL NOT TO TOUCH THE SMD COMPONENTS WHILE SOLDERING THE THT ONES.**

It's really easy to lose a tiny 0402 resistor or capacitor. Use a long and thin solder tip - and a steady hand - when soldering parts that are close to others already in place.

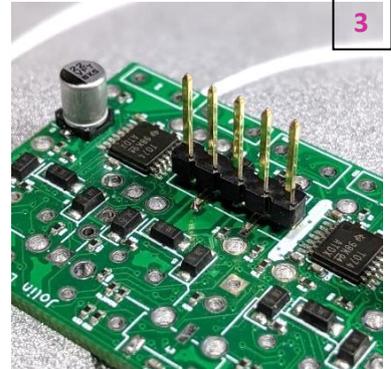
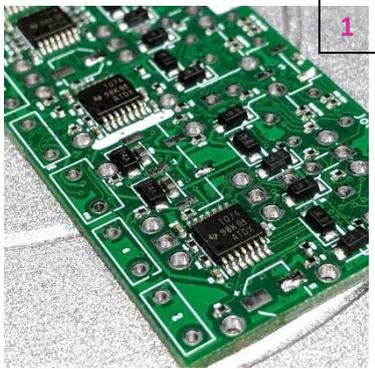
now let's begin!

## electrolytic capacitors:

Match the silkscreen shape with the black plastic of the capacitors.

*tip: add a little bit of solder on one pad, then solder one pin of the capacitor on that pad to lock it on the board. Then solder the other pin.*

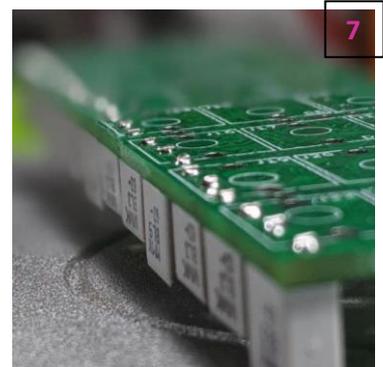
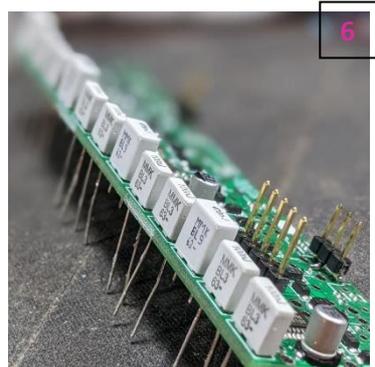
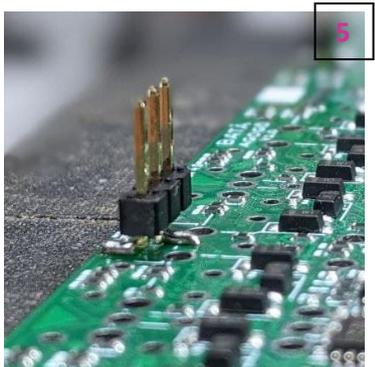
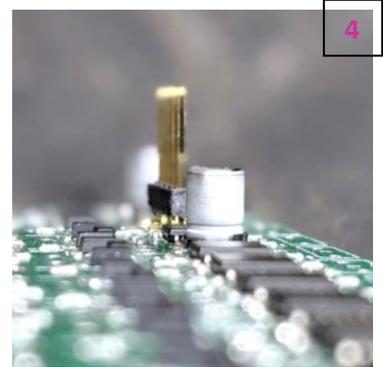
2	C2, C1	22u
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## headers:

*tip: follow the same method used for the electrolytic capacitors:  
lock and solder one pin and then do all the others. Be careful to keep the header aligned and perpendicular to the board.*

2	J_3, J_2	1x3
1	J_1	1x5



## film capacitors:

Snap them in. Don't mind their polarity.  
The value is written on top of the component.

*tip: cut out the lead as close to the board as possible. This will help the jack socket to sit properly on that side of the board.*

8	C9, C11, C15, C16, C31, C32, C35, C36	100n
4	C10, C12, C33, C34	470n

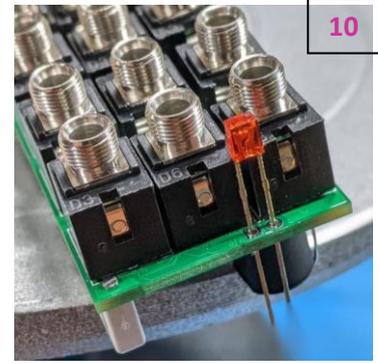
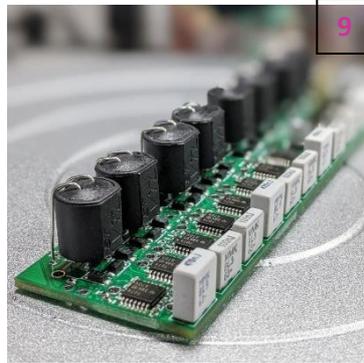
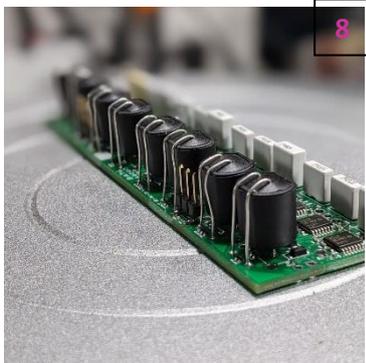
## vactrols:

Match the short leg of the vactrol with the squared solder pad on the PCB.

*tip: it's easier to bend at 90° degree all the four legs before trying to fit the vactrol in place.*

*tip: cut out the lead as close to the board as possible. This will help the jack socket to sit properly on that side of the board.*

8	U1, U2, U3, U4, U5, U6, U7, U8	VTL5C1
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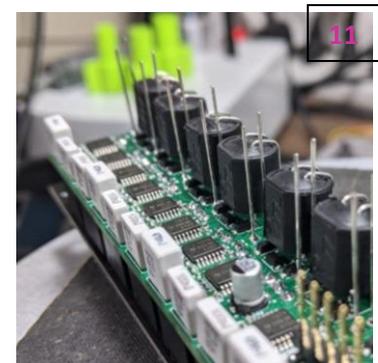


*ok, now flip the board. we are almost done*

## jack sockets:

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

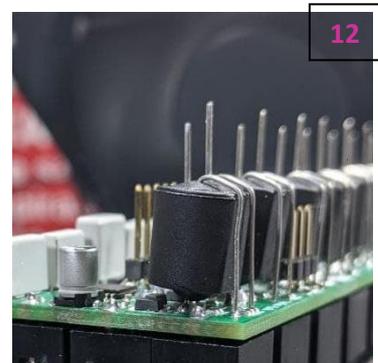
J1, J2, J3, J4, J5, J6, J7, J8, J9, J10, J11, J12, J13, J14,	PJ398SM
24 J15, J16, J17, J18, J19, J20, J21, J22, J23, J24	



## LEDs:

Short leg goes into the square pin. Don't solder them yet

2	D1, D3, D5, D7	Green_3mm
2	D2, D4, D6, D8	Red_3mm



At last, put the panel on - check its direction - tighten the nuts and then solder all the jacks and LEDs - the closer to the panel, the more they will be evident on the panel's hollow line.

*tip: we are soldering them now to ensure that all the jack sockets and LEDs are aligned with the panel. Use a long and thin solder tip to reach the socket pins without damaging the vactrols.*

check if everything is in place and well soldered

*testing:*

1. The power header is single row, your cable has two rows, eighter works. Follow the pictures on the instruction manual if you have any doubts on how to power up the module. The module has a reverse power protection but do not forget that  
**RED STRIPE GOES DOWN**
2. All the LEDs are off on startup<sup>1</sup>. Patch a CV source into the first row LPG CV input. If all the LEDs lights up following the CV source, move to the next step while keeping that cable connected.
3. Insert an audio source into the first LPG "I" input - first column of the module. Patch an output to the 8<sup>th</sup> LPG output - third column. You should hear an 8x version of the input plugged in the first LPG. Now connect the output to the LPG above and you'll get a 7x version, etc etc. The output at LPG 1 will just give you a gated and unity gain version of your original input.
4. Now test each one of the LPGs individually patching your audio source, cv and output on the same row.
5. We have this way tested each one of AGOGÔ's chains. Good job mate!

done! enjoy your new

## AGOGÔ

find us:

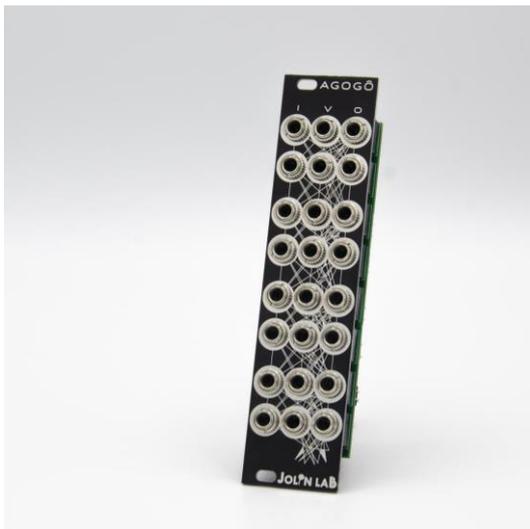
web ⇒ [www.jolinlab.com](http://www.jolinlab.com)

e-mail ⇒ [people@jolinlab.com](mailto:people@jolinlab.com)

Build group ⇒ [JolinLab - STUFF](#)

Instagram ⇒ [@jolinlab](#)

Youtube ⇒ [▶](#)



<sup>1</sup> tip for the bravest: with the power off, connect a female-female breadboard cable to a free +12V male pin on bus board and the other end to the middle pin of the AGOGÔ's top 3-pins male header. This way your LPGs will always be open - LEDs on - if nothing is plugged in the CV's input column. Try this at your own risk: nothing will happen to the module itself if you wrongly connect a GND or a -12V pin to it instead of the +12V, but messing with the bus board is not something I'd advise to do if you don't know how it works. As Hitchcock would say "If you don't know how to operate it, LEAVE IT ALONE!"