

Hello!

This guide is for building the u2X module from Transient Modules.

Even if you're an experienced DIYer, please read **ALL** the steps thoroughly before starting, as some of them are crucial and others not so obvious.

The u2X kit consists of one board and all the parts comes in one bag.

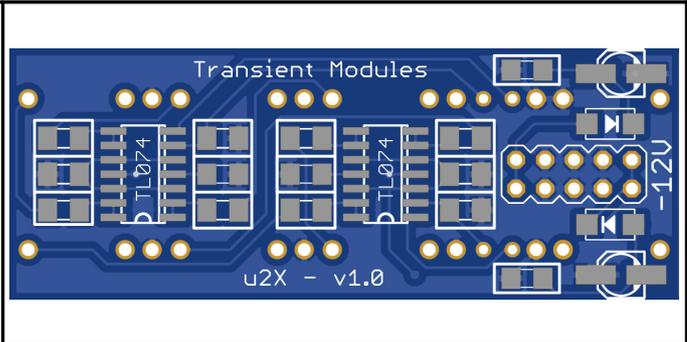
See the lists below to identify each one of them easily before start building.

Resistors:	Qty
Resistor 10M	2
Resistor 1K	2
Resistor 51R	6
Capacitors:	
100nF	6
10uF	2
Diodes:	
1N5819	2

IC Sockets:	
TL074 (SMD)	2
Others:	
LEDs bicolor	2
Jack socket	8
Knurled nuts	8
Power header	1
Panel	1
u2X PCB	1
Ribbon cable	1

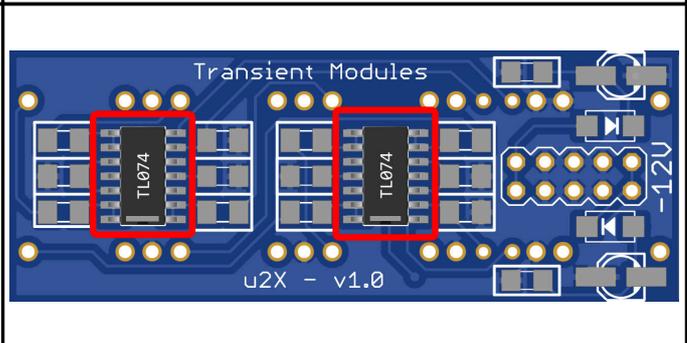


1. Empty the bag into a bowl or container. This makes it much easier to pick the parts as you need them and you're a lot less likely to lose anything.



2. Let's start with the bottom part! Solder the 2x **TL074** ICs. Position them with **the line on the top face** of the TL074 at the same end as **the end with half circle in the silkscreen**, as shown in the image.

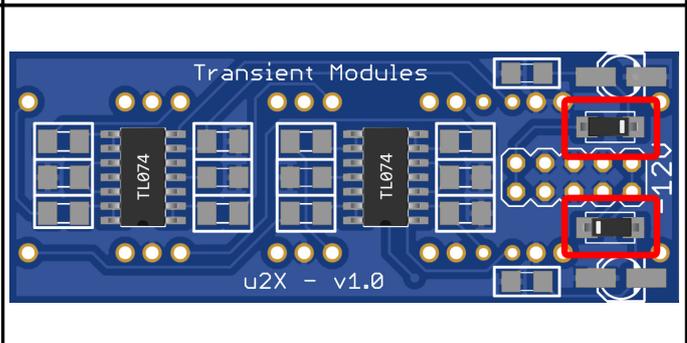
TIP for SMD soldering: <http://bit.ly/2pPBRyx>



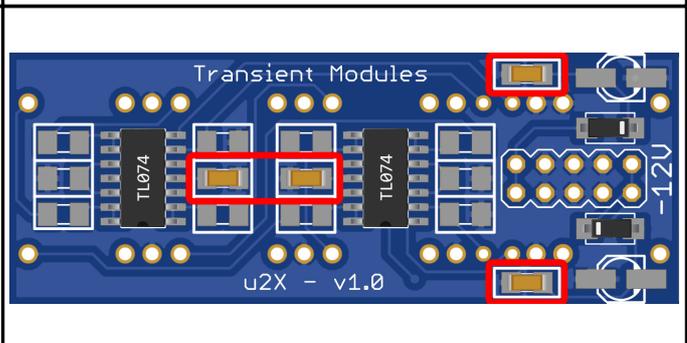
3. Solder the 2x **1N5819** diodes.

NOTE! Orientation is **vital**. The gray line on the diode (cathode) must match the silkscreen, as shown in the picture.

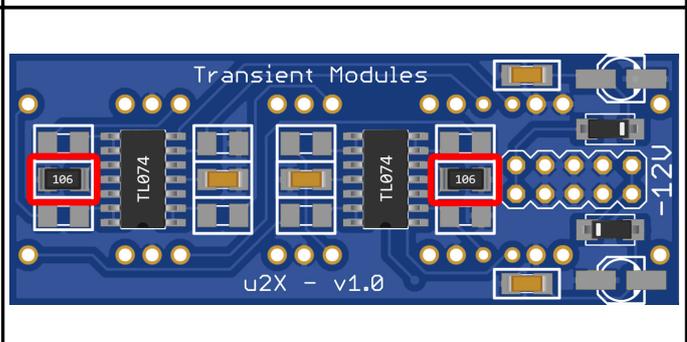
Depending on the source of light it may be harder to see the line on the diode.



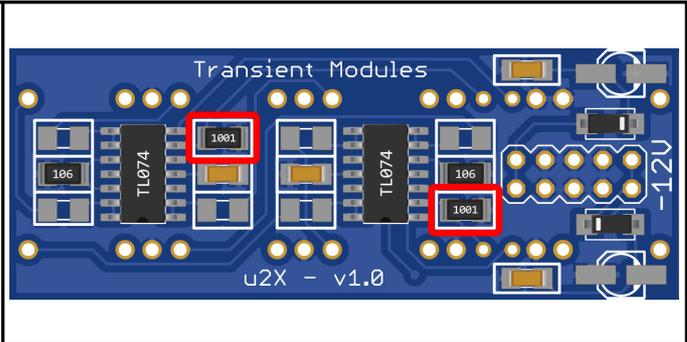
4. Solder 4x **100nF** capacitors on the bottom side.



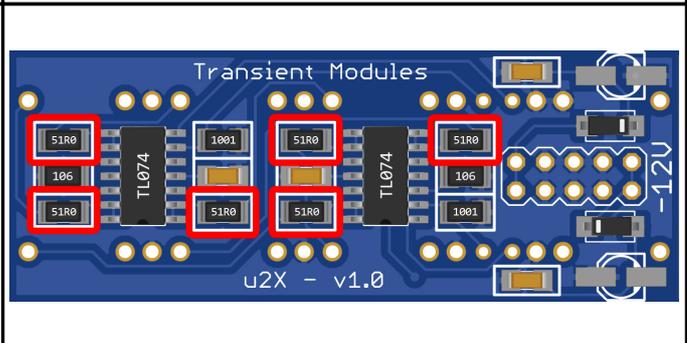
5. Solder the 2x **10M** resistors, labelled 106.



6. Solder the 2x **1K** resistors, labelled 1001.

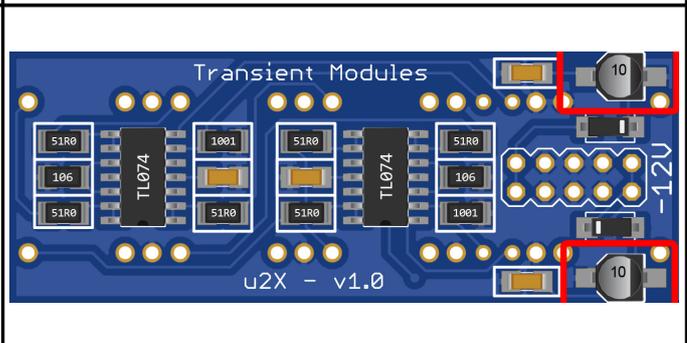


7. Solder the 6x **51R** resistors, labelled 51R0.

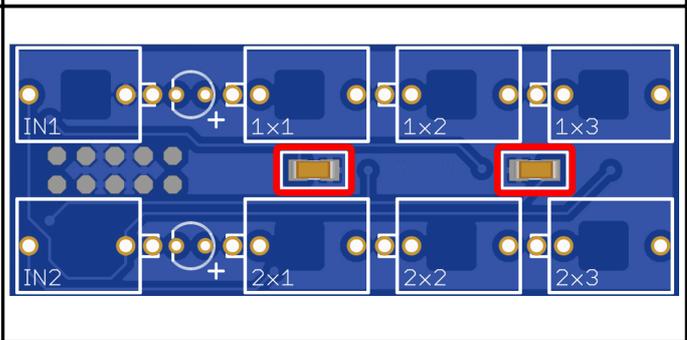


8. Solder the 2x **10uF** electrolytic capacitors.

NOTE! Orientation is vital. The negative side of the capacitor, marked with black on the top, must match the white side of the circle on the silkscreen.

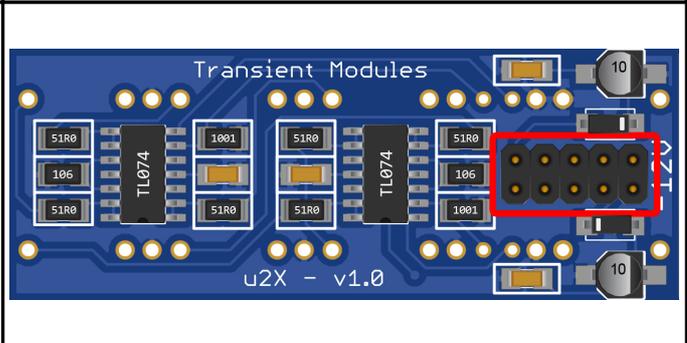


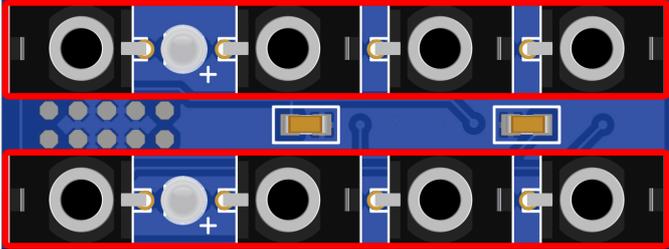
9. Front part now! Solder the 2x remaining **100nF** capacitors.



10. Back to bottom part! Solder the **power header**.

NOTE! This part is placed at the bottom of the PCB and soldered from the top, as shown on the image



<p>11. Place all the jack sockets and leds, and then place the front panel moving a little the parts if necessary. Screw the 8x knurled nuts making sure they're centered with the circles on the silkscreen of the panel.</p> <p>Solder all the parts ensuring they're all positioned through their holes in the panel.</p> <p>NOTE! Orientation of the leds is vital. The long leg should match the + symbol of the silkscreen!</p>	
<p>12. Connect the ribbon cable. The red stripe on the cable must line up with the -12V indication on the module's power connector. And...</p> <p>:) <i>Module finished!</i> :)</p>	

Something is not working as it should? *

Did you like the build manual? *

Had problems during the build process? *

Are you missing any part? *

Do you have any suggestions to make the build process better? *

Were you soldering slightly drunk and did a mess? *

* Based in real e-mails.

Then, write us to: contact@transientmodules.com

If everything went fine: congratulations and **enjoy** the module!

