Hello!

This guide is for building the u1P module from Transient Modules.

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

The kit consists of two boards and all the parts comes in one paper bag.

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

Resistors:	**Qty**
Resistor 1K	3
Resistor 10K	2
Resistor 100K	2
Capacitors:	
100nF	3
10uF	1
Headers:	
10 pin header male	1
10 pin header female	1
Power header	1
Spacers:	
M2 - 10mm	1
Diodes:	
4007	1
4148	1

Regulators:	**Qty**
7805	1
Screws:	
Silver screws	4
Philips 2mm	2
Others:	
Attiny84	1
14 pin IC socket	1
100KB potentiometer	1
2N3904 transistor	1
LED bicolor	1
Jack socket	3
Knurled nuts	3
Pushbutton + black cap	1
M2 plastic washer	1
Panel	1
Bottom PCB	1
Top PCB	1
Ribbon cable	1

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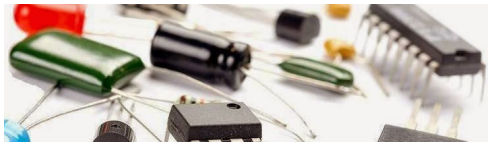
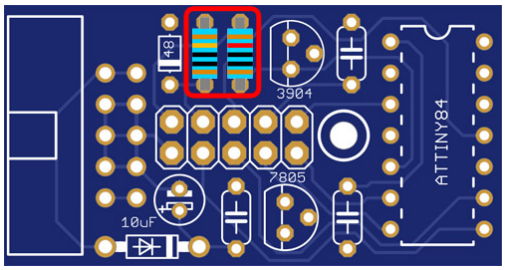
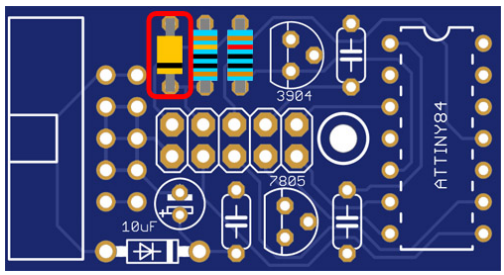
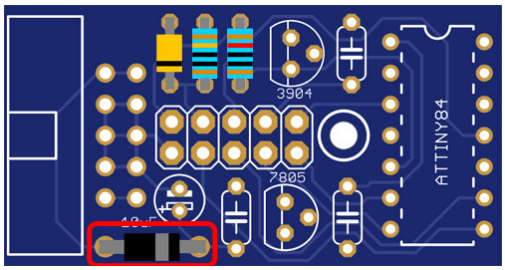
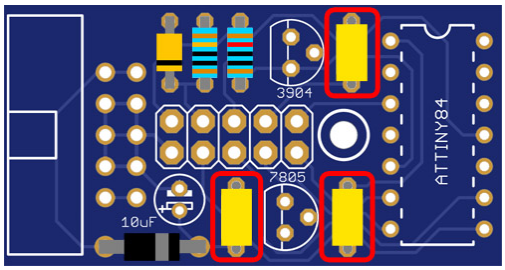
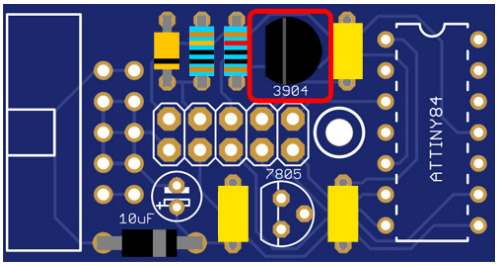
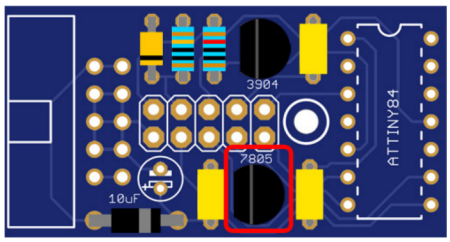
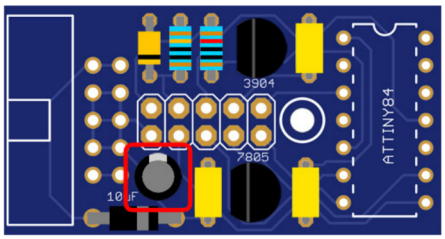
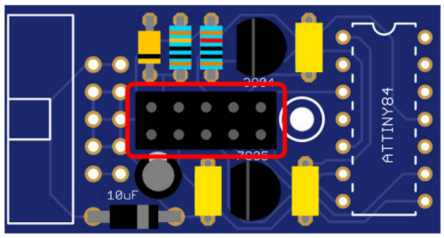
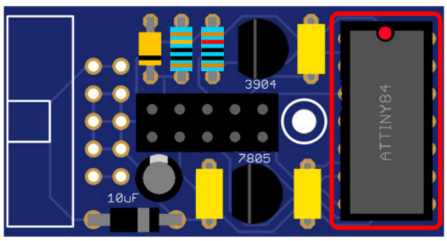
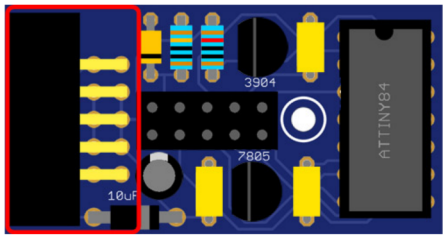
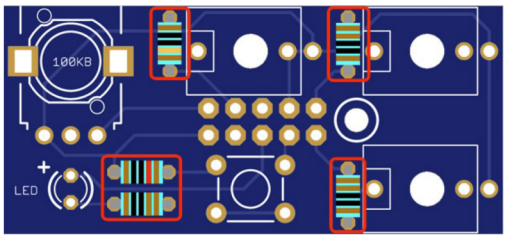
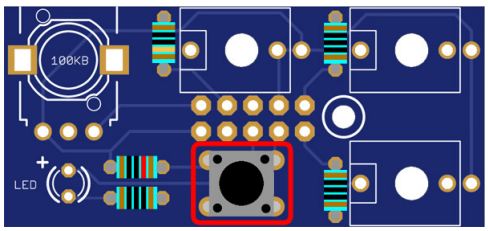
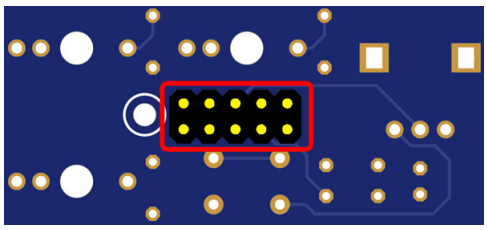
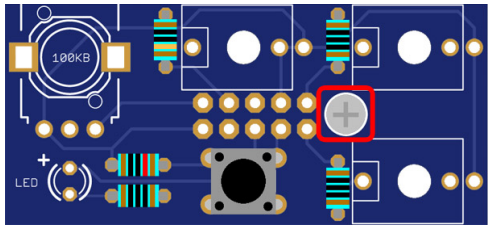
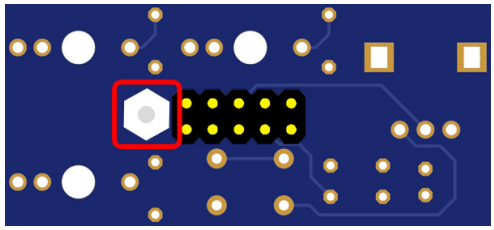
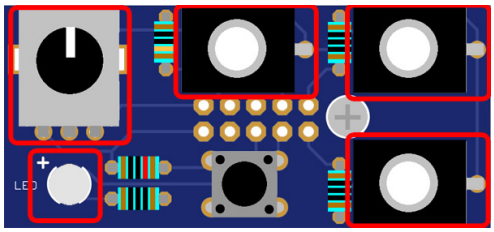
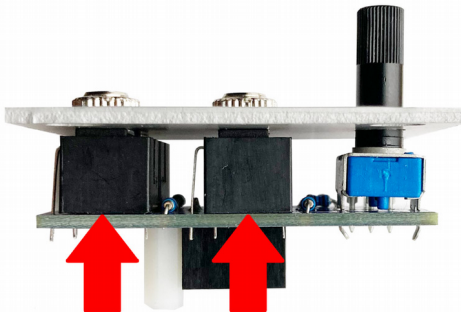
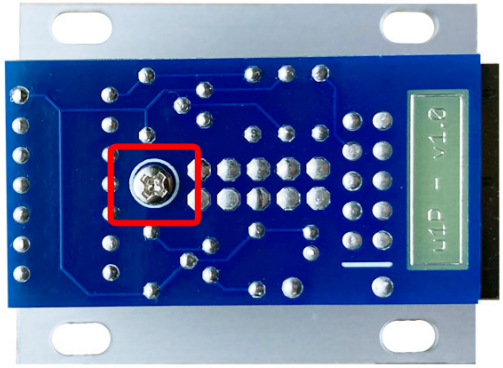
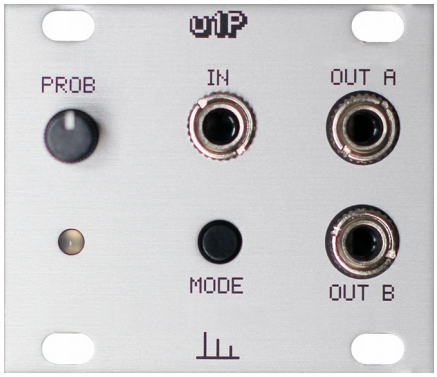
1. Empty the bag into a bowl or container. This makes it much easier to pick the parts as you need them and you're a lot less likely to lose anything.	
2. Solder the 10K and 100K resistors. 1x **10K -** brown, black, black, red, brown. 1x **100K -** brown, black, black, orange, brown.	
3. Solder the **4148** diode. !!! Orientation is important**.** The **black line** on the diode (cathode) must match the silkscreen, as shown in the picture.	
4. Solder the **4007** diode. !!! Orientation is important**.** The **gray line** on the diode (cathode) must match the silkscreen, as shown in the picture.	
5. Solder the 3x **100nF** capacitors, labelled 104.	
6. Solder the **2N3904** transistor.	

7. Solder the +5V **7805** regulator.	
8. Solder the **10uF** electrolytic capacitor. !!! Orientation is **important.** The **long leg** must be positioned in the pad marked with the + symbol.	
9. Solder the **10 pin female header.** !!! This part is placed at the top side of the PCB and soldered from the bottom.	
10. Solder the **14pin** IC socket and place the **Attiny84** on it. !!! Make sure the notch in both of the socket and Attiny84 match the orientation of the silkscreen. The pins on the Attiny84 need to be bent inwards before placing it on the socket, they will come slightly splayed out.	
11. Solder the **power header.** !!! This part is placed at the top of the PCB and soldered from the bottom. :) !! Bottom PCB is now finished !! :)	
12. Now the top PCB! Solder the resistors. 3x **1K -** brown, black, black, brown, brown. 1x **10K** - brown, black, black, red, brown. 1x **100K** - brown, black, black, orange, brown.	

13. Solder the pushbutton and place the black cap on it. !!! A little of pressure must be applied to the black cap in order to make the square shape from the pushbutton to fit into it.	
14. Solder the header. !!! This part is placed at the bottom side of the PCB and soldered from the top.	
15. Using the M2 screw, place the spacer on the bottom side of the PCB. The space is very narrow so it can only be placed with one of its sides touching the pin header and screw from the top while keeping it in position.	 
16. Place the **3x jack sockets**, the**100KB** potentiometer and the **leds** into their position but **DO NOT SOLDER** anything yet. !!! Orientation of the LED is **essential.** The long leg should be positioned in the pad marked with the + symbol.	
17. Place the front panel moving a little the parts if necessary. Place the 3x **jack nuts** and make sure the LED is positioned through the hole in the panel and the PCB is completely attached to the jack sockets. **Now you can solder the jack sockets, the potentiometer and the LED.**	

18. Join the top PCB and the bottom PCB using the remaining M2 screw.	
19. Connect the ribbon cable. The red stripe on the cable must line up with the white line on the module's power connector. And... :) Module finished :)	

Something is not working as it should? *

Did you like the build manual? *

Had problems during the build process? *

Are you missing any part? *

Were you soldering 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!