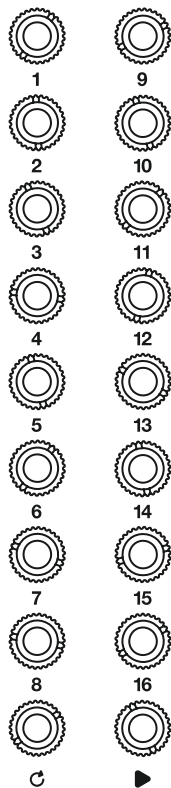
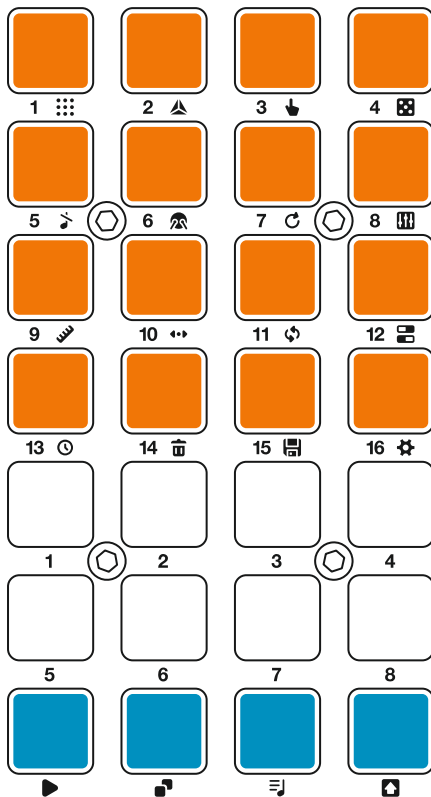


SWT 16⁺



robaux

Assembly Guide

With these assembly instructions, you can quickly build your SWT16+. All required components are included in this kit.

You need the following tools: soldering iron, wire cutter, and solder. Also a desoldering pump and a nut driver.

Read the instructions carefully and follow the steps in the correct order. Robaux wishes you much fun building the Sweet 16 Plus Sequencer.



1 20 Pin Header

Let's start with the jack board. Take the narrow PCB and solder the 20-pin header to the back.





2 Thonkiconns

Now grab the 18 Thonkiconn Jacks and place them in the PCB. **Please do not solder the jacks yet!**



3 Knurled Nuts

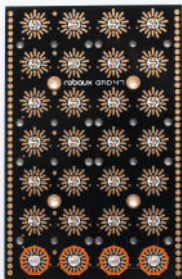
Now put the PCB with the Jacks on the front panel. Use the knurled nuts to tighten the jacks on the front panel. If everything is screwed tight, you can solder on the Jacks.





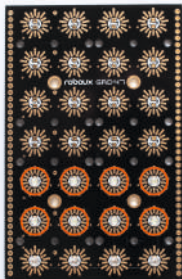
4 Blue LEDs

Now it's the turn of the LEDs. Let's start with the blue ones. Solder these in the bottom row. Please pay attention to the polarity of the LEDs. The long leg goes into the + hole, the short leg into the - hole.



5 White LEDs

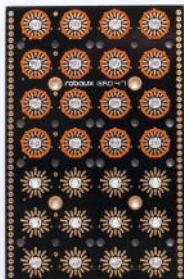
That was easy! Then it's the turn of the white LEDs. Solder these in the two rows above the blue LEDs.





6 Orange LEDs

Now only the 16 orange LEDs have to be soldered.



7 40 Pin Headers

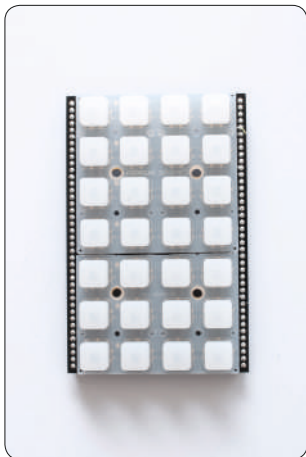
Flip the button board over and solder on the two 40 pin headers.





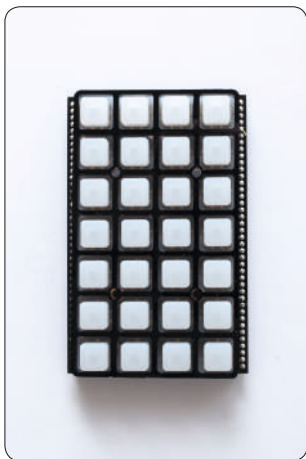
8 Keypad

Now place the 4x4 Button Keypad and the 4x3 Button Keypad on the front of the Button Board. Make sure that the holes on the keypad match the holes on the button board.



9 Frame

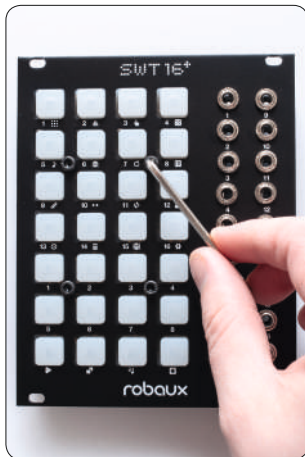
Now put the frame on the keypad. Make sure the holes in the frame match the holes in the keypad.





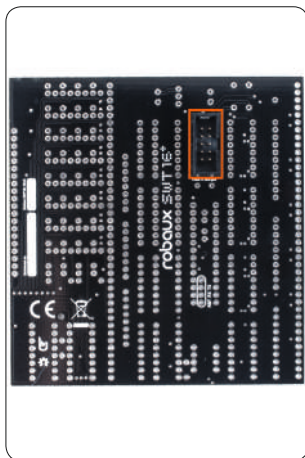
10 Screws

Now fix the front panel, the frame, the keypad and the button board with the four screws. Insert the screws through all parts as shown in the picture. Secure the screws with the washers and nuts.



11 Power Socket

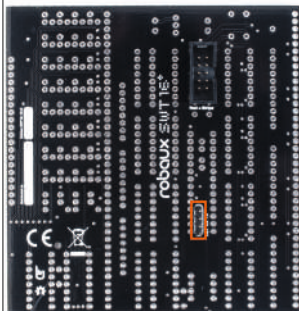
Now take the main board and solder the socket as shown in the picture. Note that the socket points in the right direction.





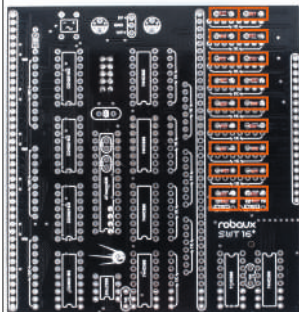
12 Pins

Place and solder the Male Pin Headers as shown in the picture. It is the shorter pins of the pin header that you are soldering.



13 Diodes

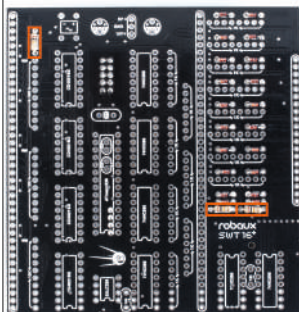
Now solder the twenty diodes to the board as shown in the picture. Please pay attention to the polarity!





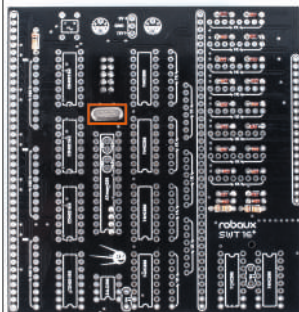
14 Resistor 10K

Now solder the three 10K resistors to the board. You can recognize the resistors by their color code Brown, Black, Orange, Gold.



15 Crystal

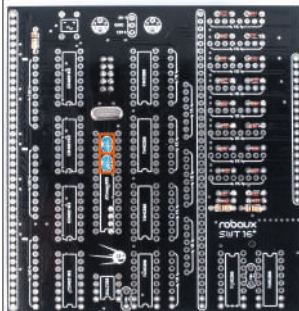
Now solder the 16MHz crystal as shown in the picture.





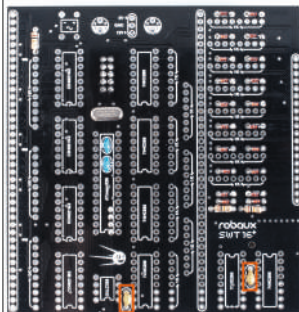
16 Capacitor 220

Now solder the two 220 capacitors to the board as shown in the picture.



17 Capacitor 104

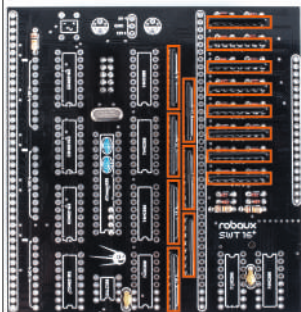
Now solder the two 104 capacitors to the board as shown in the picture.





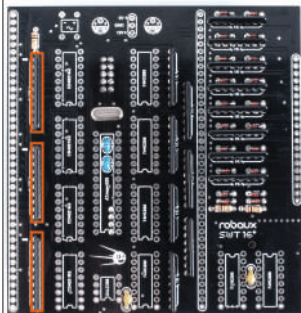
18 1K Arrays

Solder the fifteen 1K resistors arrays to the board as shown in the picture. These arrays do not have a specific direction.



19 10K Arrays

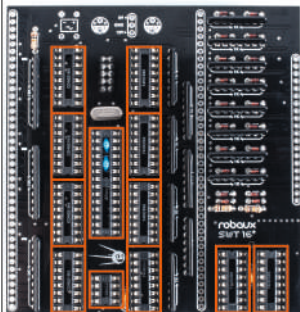
There are even more 10K resistors in the form of three resistor arrays. Attention: Please be sure to solder the arrays in the right direction! The mark on the PCB must match the mark on the array.





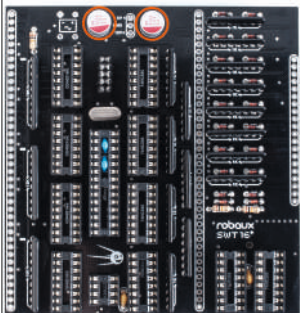
20 IC Sockets

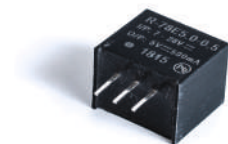
Now solder the IC sockets to the board. It is easiest to solder first only the outer pins and then the remaining ones.



21 Capacitors

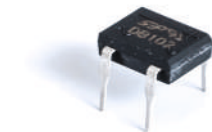
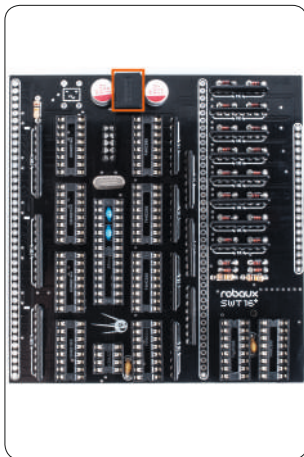
Now solder the two Electrolytic Capacitors to the board as shown in the picture. Please pay attention to the polarity of the Capacitors. The red mark must match the mark on the PCB.





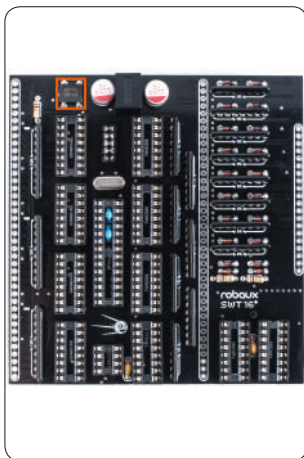
22 Step Down

Now solder the step-down adapter to the pins as shown in the picture.



23 Rectifier

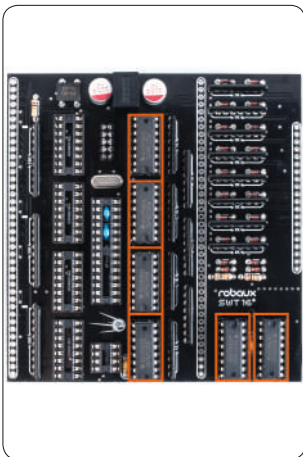
Now it's time for the rectifier. Solder this to the PCB as shown in the picture. Note that the - and + symbols on the board match the symbols on the rectifier.





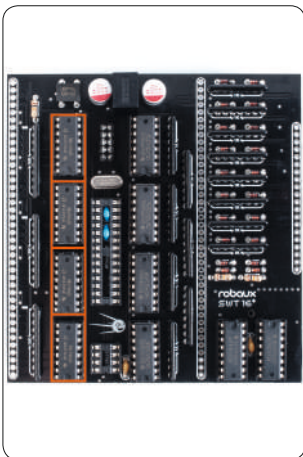
24 74HC595

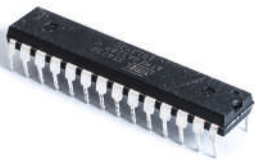
Now the ICs can be installed. Let's start with the 74HC595. Put four of them nose down as shown in the picture. Two more are installed with the nose up on the right side.



25 CD4021

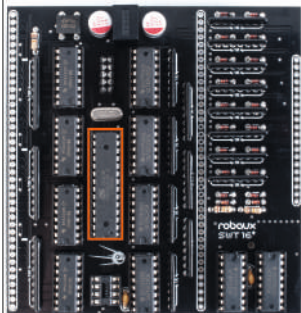
Now you can put the four CD4021 nose down as shown in the picture.





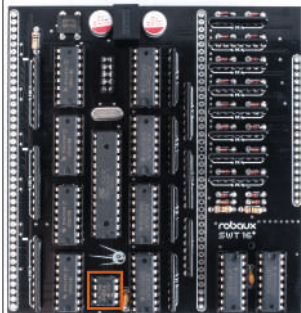
26 ATmega

Now insert the ATmega into the socket. Be sure to attach it nose down as shown in the picture.



27 EEPROM

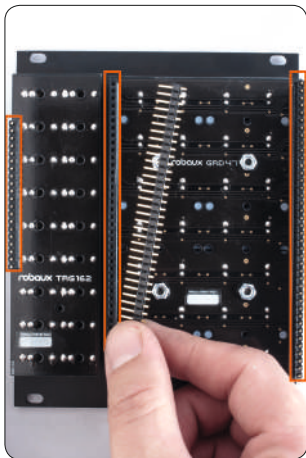
One more IC left. Install it with the nose down as shown in the picture.





28 Pins

Insert the pin headers into the headers on the button board and the jack board. Move the black bar of the 20 pin so that it fits well in the low header.



29 The last step.

Be especially careful, because now comes the tricky part! Plug the mainboard into the installed pins headers. If everything fits, solder them on.

Voilà!

Congratulations! Your module is ready and can be installed in your case. Make sure the power cable is plugged in the right way on both connectors. Enjoy creating beats with the Robaux Sweet 16+!

