

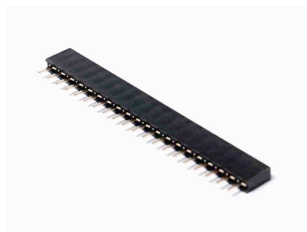
## Assembly Guide

# Assembly Guide

With these assembly instructions, you can quickly build your LL8<sup>II</sup>. All required components are included in this kit.

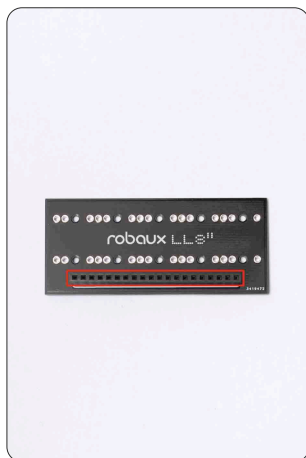
You need the following tools: soldering iron, wire cutter, and solder. Also a desoldering pump and a nut driver.

Read the instructions carefully and follow the steps in the correct order. Robaux wishes you much fun building the LL8<sup>II</sup> Sequencer.



## 1 20 Pin Header

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

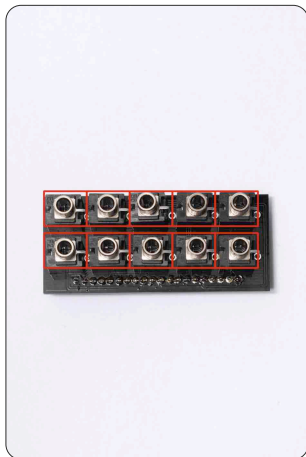




## 2 Thonkiconns

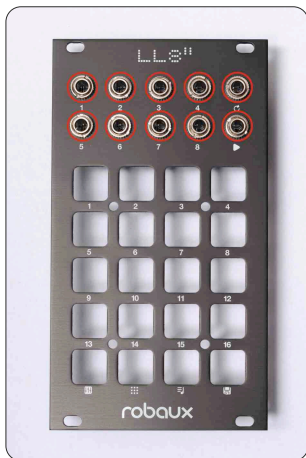
Now take the 10 thonkiconn jacks and place them on the front side of the PCB.

**Please do not solder the jacks yet!**



## 3 Knurled Nuts

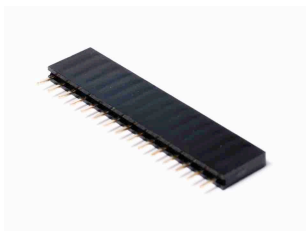
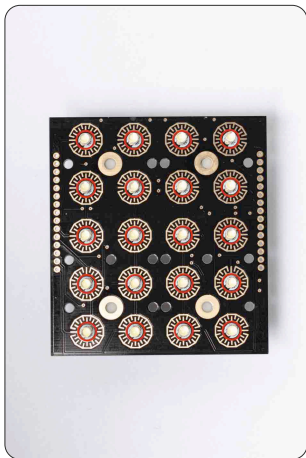
Now put the PCB with the Jacks on the front panel. Use the knurled nuts to tighten the jacks on the front panel. If everything is screwed tight, you can solder on the Jacks.





#### 4 LEDs

Solder the 20 LEDs. Pay attention to the polarity of the LEDs. The long leg goes into the + hole, the short leg into the - hole.



#### 5 15 Pin Headers

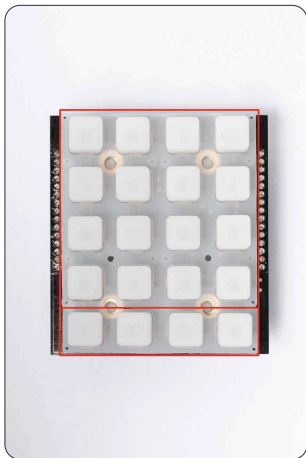
Flip the button board over and solder on the two 15 pin headers.





## 6 Keypad

Now place the 4x4 Button and the 4x1 button keypad on the front of the button board. Make sure that the holes on the keypad match the holes on the button board.



## 7 Standoffs

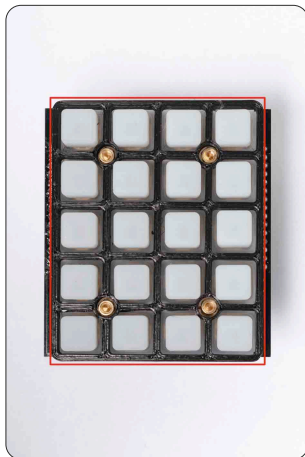
Screw the bolts into the board. The smaller bolt is inserted through the board from above and screwed to the longer female bolt from below.





## 8 Frame

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



## 9 Screws

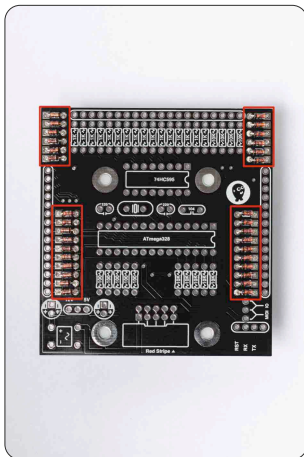
Now place the front panel with the already installed jack board on the button board and screw it with the four black screws.





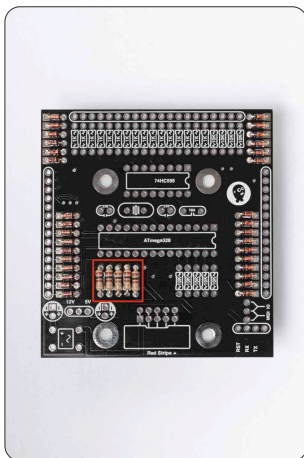
## 10 Diodes

Now pick up the mainboard and solder the 32 diodes to the board as shown in the picture. Please pay attention to the polarity! The stripe on the printed diode symbol corresponds to the black mark on the diode.



## 11 Resistor 100

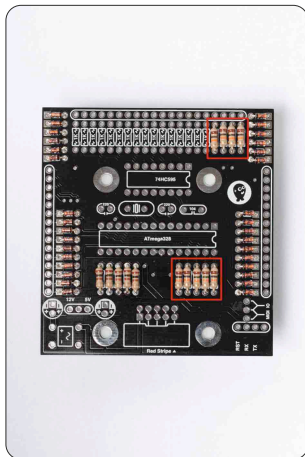
Now solder the five 100 resistors to the board. You can recognize the resistors by their color code brown, black, brown, gold.





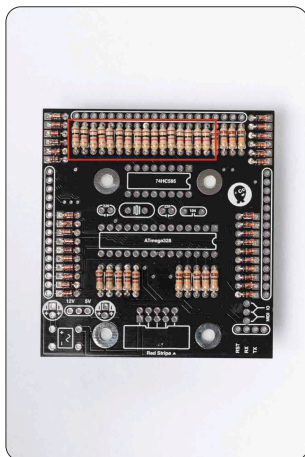
## 12 Resistor 10K

Now solder the nine 10K resistors to the board. You can recognize the resistors by their color code brown, black, orange, gold.

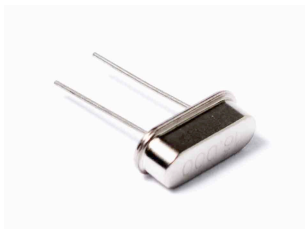


## 13 Resistor 1K

Now solder the 1K resistors to the board. You can recognize the resistors by their color code brown, black, red, gold.

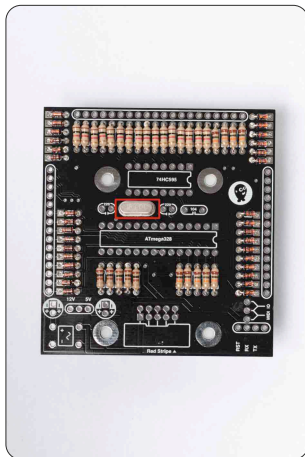






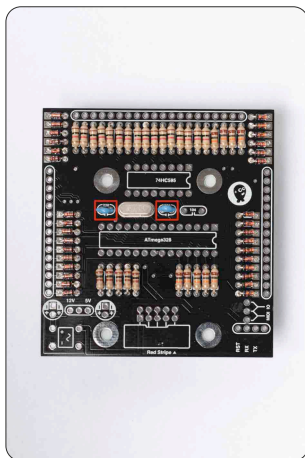
## 14 Crystal

Solder the 16MHz crystal as shown in the picture.



## 15 Capacitor 220

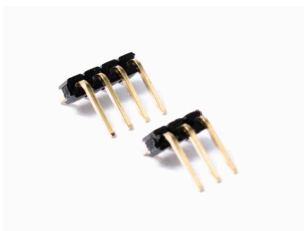
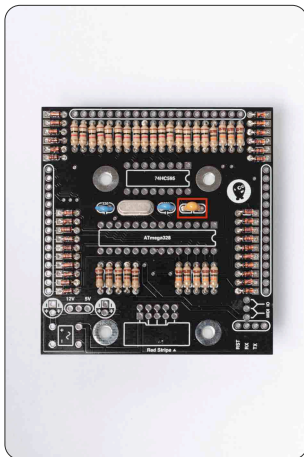
Now solder the two 220 capacitors to the board as shown in the picture.





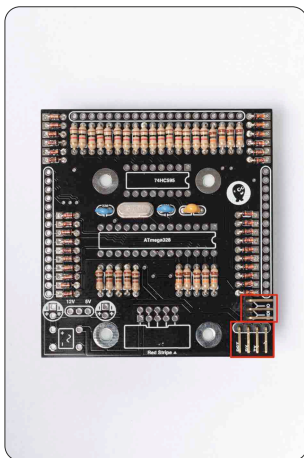
## 16 Capacitor 104

Solder the two 104 capacitors to the board as shown in the picture.



## 17 Pins

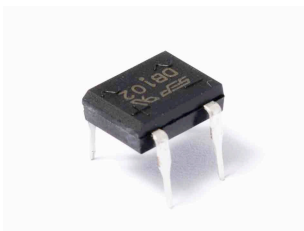
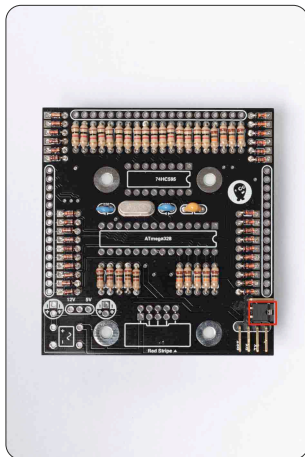
Place the two pin headers as shown in the picture. It is the shorter pins of the header that you solder in.





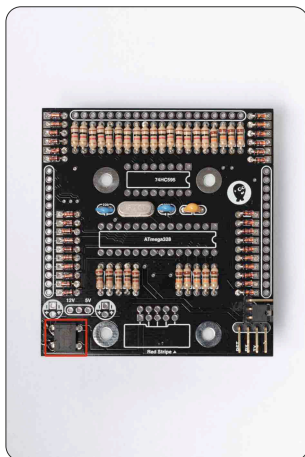
## 18 Jumper

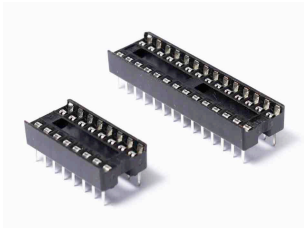
The jumper is attached to the 3-pin header. With the jumper you can set whether the programming port should be used for the optional MIDI adapter (default) or as an interface for firmware updates.



## 19 Rectifier

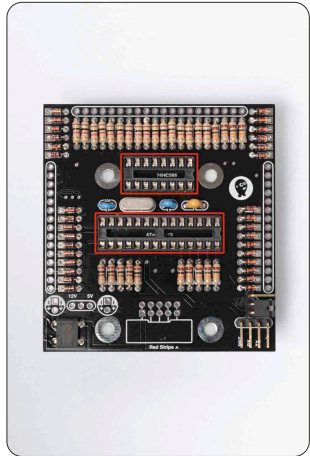
Now it's time for the rectifier. Solder this to the PCB as shown in the picture. Note that the - and + symbols on the board match the symbols on the rectifier.





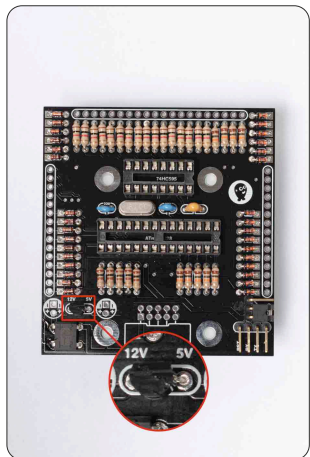
## 20 IC Sockets

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



## 21 Voltage regulator

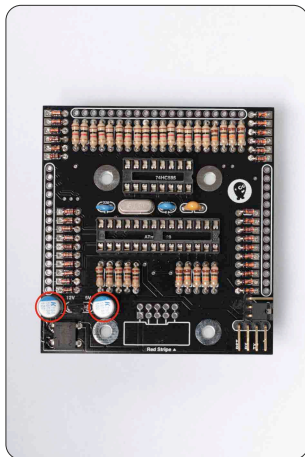
Now solder the voltage regulator as shown in the picture. Make sure that the flat side is facing up and the round side is facing down.





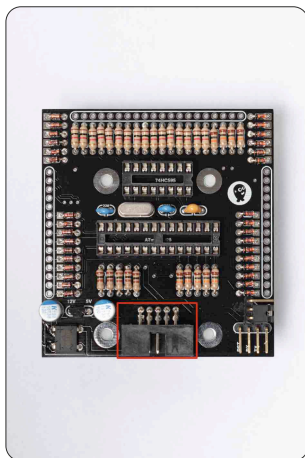
## 22 Capacitors

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



## 23 Power Socket

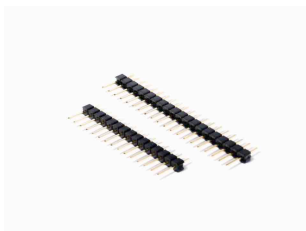
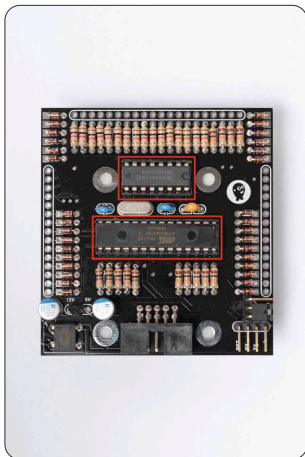
Solder the power connector to the board.





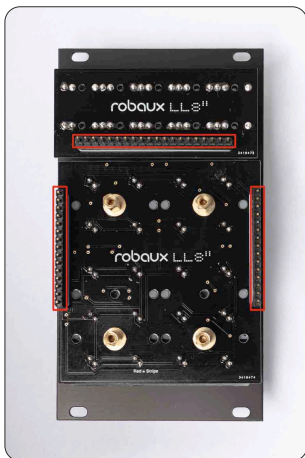
## 24 ICs

Now the ICs can be installed.  
Both ICs point with their nose to the right.



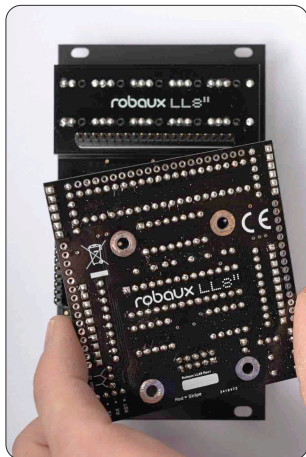
## 25 Pins

Plug the two 15 pin headers  
into the button board headers  
and the 20 pin header into the  
jack board.



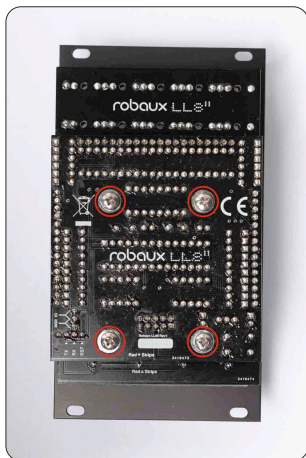
## 26 Nearly done

Be especially careful, because now comes the tricky part! Plug the mainboard into the installed pins headers. In some cases, you may need to unscrew and align the jack board or button board to make them fit together.



## 27 Screws

Screw the two boards together and then solder the pin headers. And that's it, your LL8 II is ready!



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