Assembly Guide

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These assembly instructions will help you build your Robaux 3PT. All necessary components are included in this kit.

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

Read the instructions carefully and follow the steps in the correct order. Robaux wishes you lots of fun building the Tripot module.

1 LEDs

Let‘s start with the LEDs. Solder the 42 LEDs as shown in the picture. Please pay attention to the polarity of the LEDs. The long leg goes into the + hole, the short leg goes into the - hole.

2 Diodes

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

3 Resistor 1K

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

4 Trimmers

Now insert the nine trimmer as shown in the picture.
Please do not solder the trimmers yet!

5 Potentiometer

Now insert the potentiometer as shown in the picture.
Please do not solder the potentiometer yet!

6 Thonkiconns

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

7 Tact Switch

Now plug in the tact switch.
Please do not solder the switch yet!

8 Ring

Now take the ring and put it between the LEDs as shown in the picture.

9 Panel

Now place the front panel carefully on the board.

10 Hex Nut

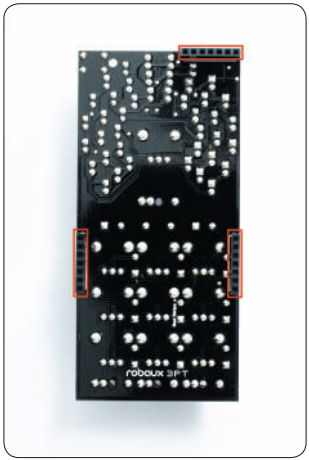
Fix the potentiometer with the nut.

11 Knurled Nuts

Use the knurled nuts to tighten the jacks on the front panel. When everything is screwed tight and all components are aligned, you can solder the sockets, the trimmers and the potentiometer.

12 Header 7

Unscrew the nuts and remove the front panel. If you want you can now clean the back of your PCB. Then solder the three headers to the PCB.

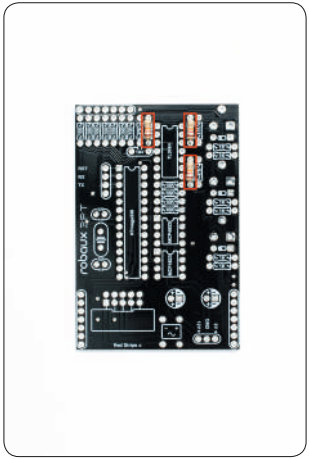


13 Knob

Now put the front panel back on, screw on the potentiometer and the sockets. Finally, put the knob on the potentiometer.

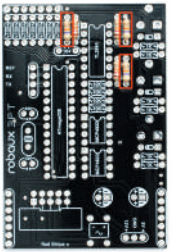
14 Resistor 12K

Take the second PCB. Now solder the three 12K resistors to the board. You can recognize the resistors by their color code brown, red, orange, gold.



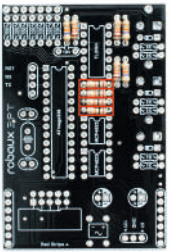
15 Resistor 47K

Now solder the three 47K resistors to the board. You can recognize the resistors by their color code yellow, violet, orange, gold.



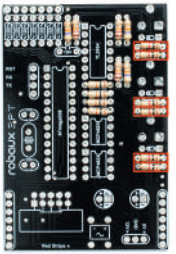
16 Resistor 10K

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



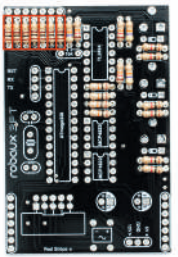
17 Resistor 1K

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



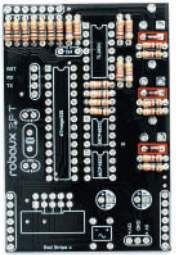
18 Resistor 100

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



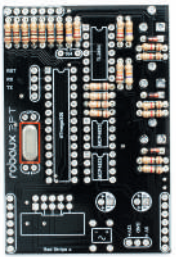
19 Diodes

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



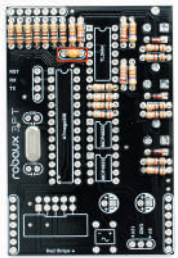
20 Crystal

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



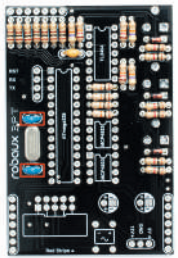
21 Capacitor 104

Now solder the 104 capacitor to the board as shown in the picture.



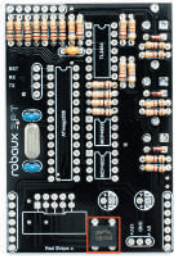
22 Capacitor 220

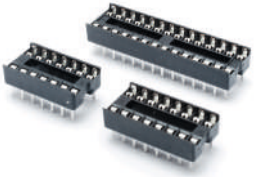
Now solder the two 220 capacitors to the board as shown in the picture.



23 Rectifier

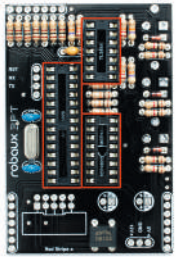
Now it's time for the rectifer. Solder this to the PCB as shown in the picture. Note that the - and + symbols on the board match the symbols on the rectifer.





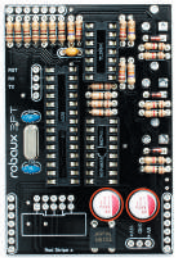
24 IC Socket 28

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



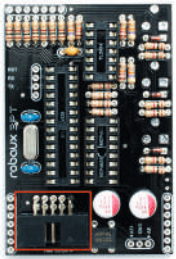
25 Capacitors

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.



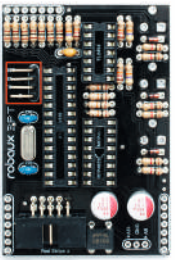
26 Power Socket

Solder the socket as shown in the picture. Note that the socket points in the right direction.



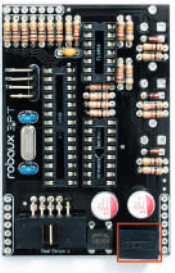
27 Pins 4

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.



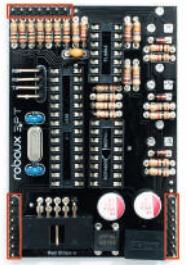
28 Step Down

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



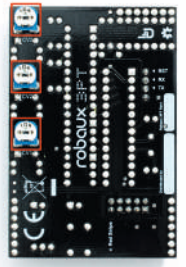
29 Pins 7

Now solder the three pin strips. Tip: temporarily plug this onto the other PCB so that everything is properly aligned.



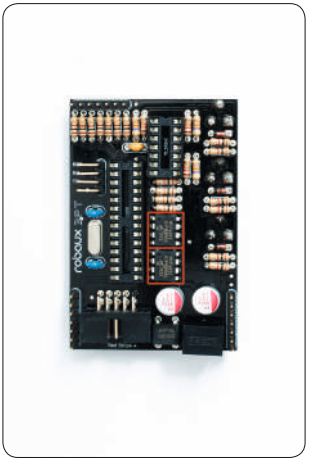
30 Trimmer 104

If you want you can now clean the back of this PCB. Then solder the three trimmers to the back as shown in the picture. Turn the trimmers fully clockwise.



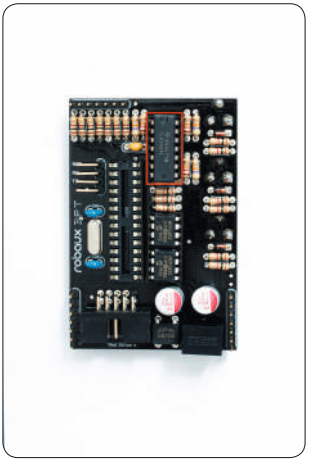
31 DACs

Flip the board over again and insert the two DACs side by side as shown in the photo. Make sure the nose is facing up.



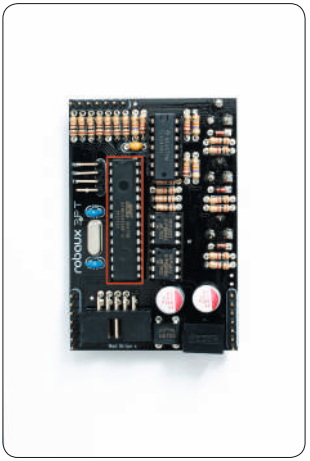
32 OP Amp

Now insert the amp. Make sure the nose is facing up.



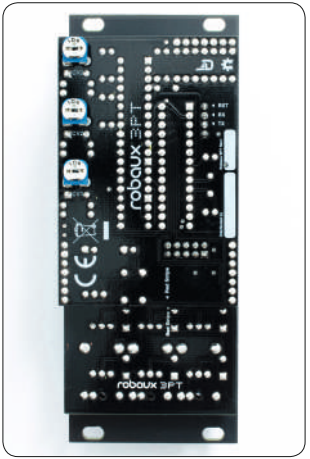
33 ATMega

Now insert the ATmega into the socket. Be sure the nose is facing up as shown in the picture.



34 Voilà!

Now put the two boards together and your module is ready! Please note the instructions for calibrating the module in the user manual.

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