



**TouchGates** Touch-Controlled Gate/Trigger Source  
Assembly Instructions - Eurorack (2hp)  
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Hello and thank you for using the TouchGates DIY kit. We hope you have a fun build!

### To build the Full DIY Kit you will need:

- Soldering iron
- Wire solder (recommend lead free no-clean type)
- Edgecutters
- Table vice (recommended)
- Blue painter's (highly recommended) or masking tape

### Assembly Instructions:

1. Install surface mount components on the rear of the PCB. We recommend using No-Clean liquid flux on the board before applying quality solder paste such as Chip-Quik SMD291SNL, tweezing components onto the board, and reflowing with a hot air station or oven. However, the size of these components (0805) means they can likely be hand-soldered by anyone with reasonable soldering experience. (If you bought a pre-soldered PCB or full DIY kit, the parts are already populated and you can skip this step.)

\*Builder's note\*: Resistors R21, R22, R23, and R24 set the sensitivity of each channel. The value of 4.7k has been chosen to work under most circumstances. However, should the builder desire, the sensitivity can be decreased by changing it to 3.3k, or increased by changing it to 5.6k.

2. Solder the 5-pin power header to the PCB, making sure the protruding pins are on the side with the surface mount components. **Recommended technique**: place the 10-pin side of your power ribbon cable over the 5-pin header and use it to ensure the power header is perpendicular to the board before you solder all the pins.

3. Place the four Thonkiconn jacks in their footprints on the other side of the PCB. Do not solder anything yet!

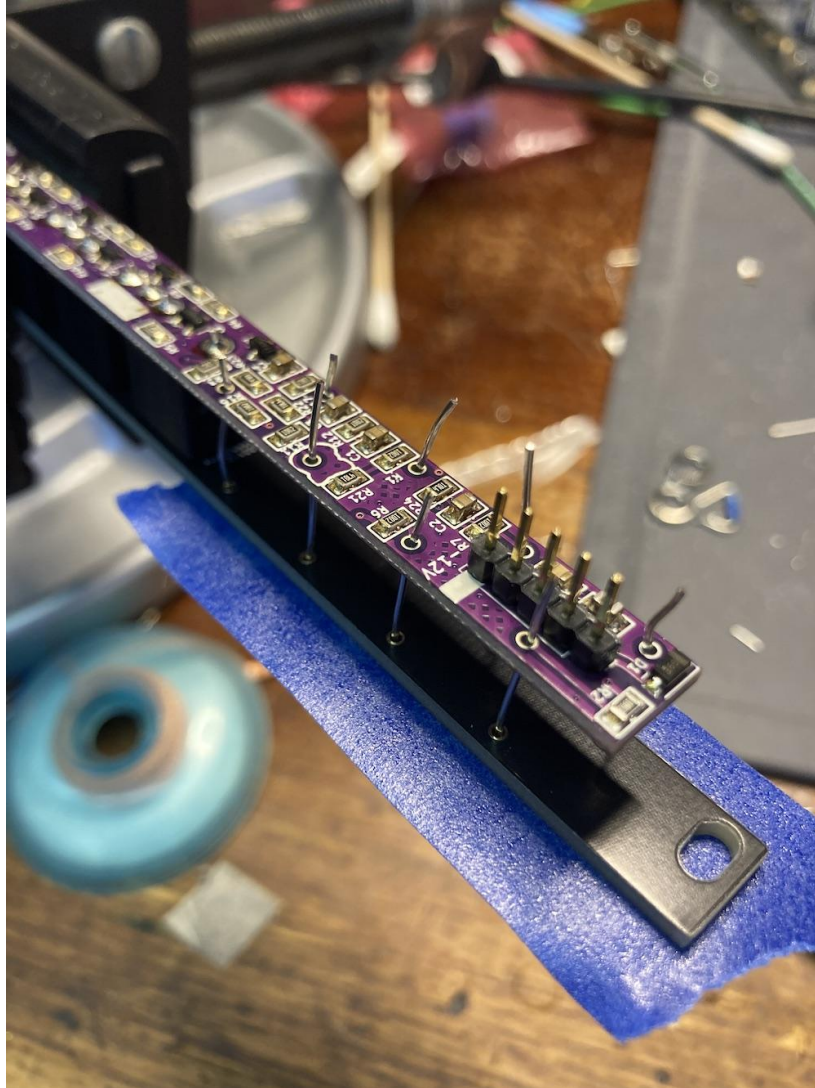
4. Fit the TouchGates panel over the four Thonkiconn jacks, making sure they don't fall out of the PCB holes. Hold the panel in place and hand-tighten all four nuts for the Thonkiconn jacks so the panel is securely held in place.

5. Flip the module over. Make sure the PCB and jacks are aligned behind the panel and the two boards are parallel, then solder the pins of all four Thonkiconn jacks. A table vice makes this easy to accomplish. Use a generous amount of quality lead-free solder to make sure all the jack connections are good.

6. Prep your panel interconnects by cutting the included length of wire into eight pieces, each about  $\frac{3}{4}$ " or 15mm in length.

7. Place a piece of blue painter's or masking tape on the outside of the panel so that all eight panel through holes are covered.

8. With the module still face down, put the eight wires through the through-holes on the back of the PCB so that the tip of each rests inside the corresponding panel through-hole. (See picture below.)



*Step 8, illustrated*

9. Once the wires are placed, solder the wires. Do the PCB through holes first, then once the wires are well soldered to the PCB, go ahead and also solder them to the exposed backside of the panel. Use a generous amount of solder on the panel.

10. Use your edgecutters to clip the excess wire off the back of the PCB and peel the piece of tape off the front panel. The module should now be entirely soldered and ready to test!

*Thank you for building the TouchGates for Eurorack!*