



Hi, Jack! Build Guide

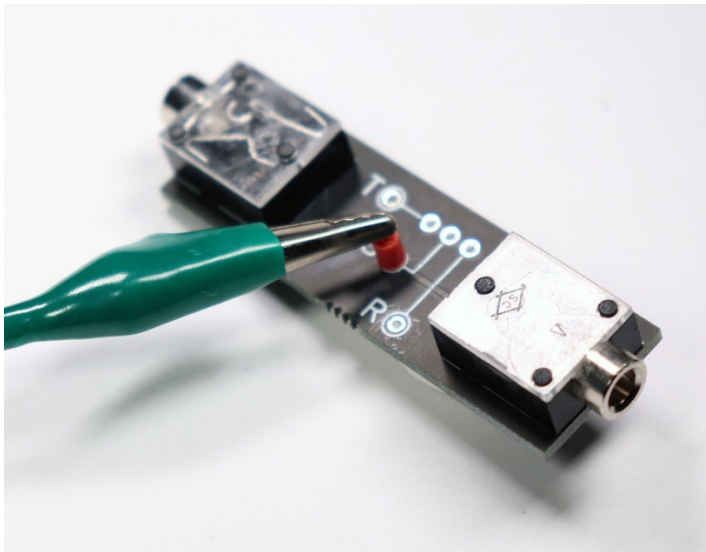
Hi, Jack! is a breakout board that helps you spy on the electrical signals coursing through the tip/ring/sleeve of your audio and patch cables. Connect a multimeter to the test points on the board and you're able to measure the voltage at those points. The Hi, Jack! kit includes everything you need to make three complete breakout boards. Use the included test points to make connections or solder a pin header of your own in place to attach Hi, Jack! to a breadboard.

Required Tools

1. Flush cutters
2. Soldering iron & solder

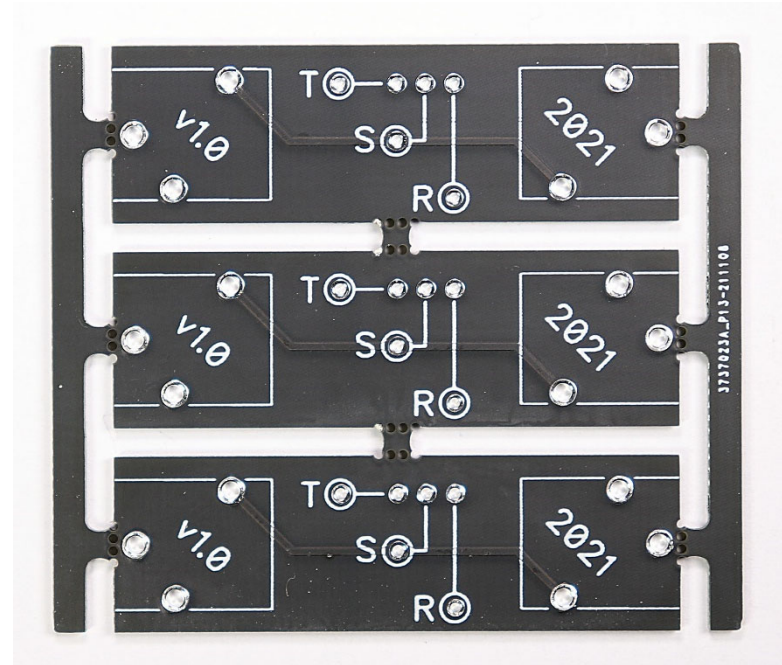
Included with the Kit

1. Three Hi, Jack! circuit boards (on a single panel)
2. Six stereo TRS jacks
3. Nine test points



Build Instructions

Step 1: Use your flush cutters to cut the tabs, freeing one of the boards from the panel.



Step 2: Place the two stereo jacks in the areas marked with rectangles

Step 3: Solder the jacks from the opposite side of the board. (If you're on the correct side of the board, you will be reading "Hi, Jack!" as you are soldering)

Step 4: Stick the included test points into whatever holes are convenient.

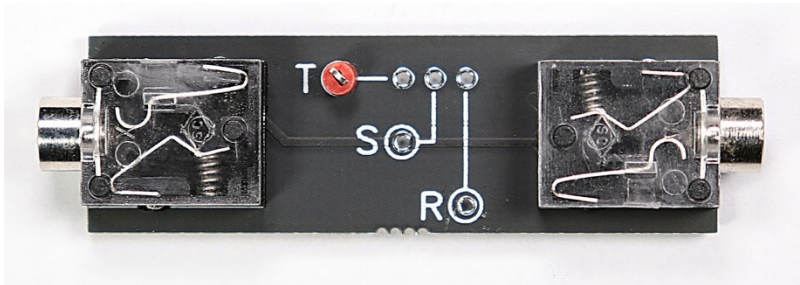
Step 5 (optional): If you want to use this particular breakout with a breadboard, place a 3-pin male header inside the rounded rectangle on the opposite side of the board and solder it in place.

Since there are three complete breakout boards, you can set each of them up differently and use them for different purposes.



Hi, Jack! User Manual

It makes sense to consider the Hi, Jack! board to be the middle of a *cable assembly* – with a cable plugged into the left side of the board, and a separate cable plugged into the right side.



Using this board as part of a three-part *cable assembly* helps avoid plugging and unplugging “hot” cables into its jacks. A good reason to avoid “hot swapping” mono patch cables in these stereo jacks is that there can be a momentary shorting of pins as the cable’s connector is inserted. Well designed Eurorack modules should not have any issues with such a momentary short, but a best practice is to plug a cable into Hi, Jack! *before* connecting the other end of the cable to a module or other piece of gear.

The included test points are a great way to temporarily connect the probes of a multimeter or oscilloscope. They can also be grabbed by alligator clips. If they’re too loose for your liking, you can pull them out and bend them a little – or even solder them in place.

Usage Example #1: Measuring a voltage offset

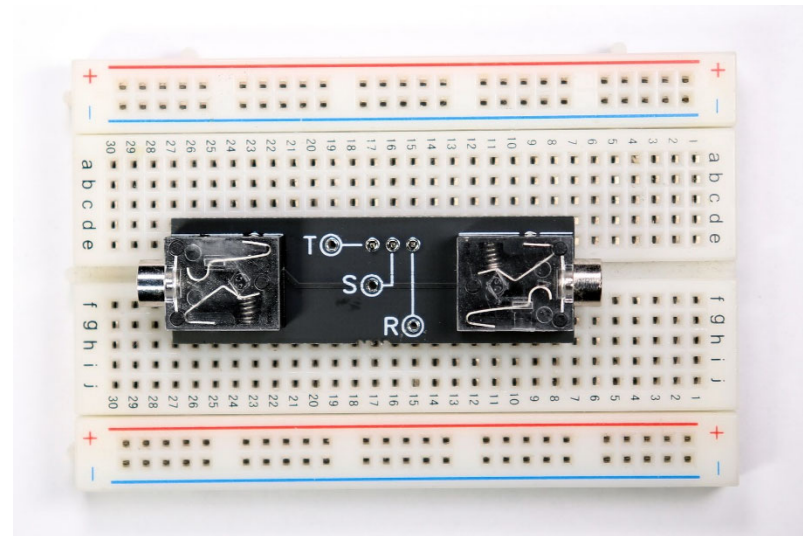
Connect the black lead of your multimeter to the **Ⓡ** point on the board and the red lead to the **Ⓣ** point, then set your meter to measure a DC voltage. This is handy for measuring a control voltage coming from a sequencer’s CV output or other voltage source.

Usage Example #2: Viewing waveforms on an oscilloscope

Connect your oscilloscope’s ground clip to the **Ⓡ** point on the board and its X10 probe to the **Ⓣ** point. For a stereo cable, both the **Ⓣ** and **Ⓢ** points can be measured since they carry the left and right audio channels. With an oscilloscope, you can view a signal that changes over time, such as the output of an oscillator.

Usage Example #3: Adding jacks to a breadboard circuit

By soldering a 3-pin male header to the bottom of the breakout, you can easily access the tip, ring, and sleeve of the jacks using a breadboard. The most practical use for this configuration is to add a single TRS jack to a breadboard circuit (ignoring the other jack).





NO WARRANTY

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