

# DESCRIPTION

Design your own Pi HAT, attach custom circuitry and otherwise dress your Pi Zero, A+, B+, Pi 2 or Pi 3 (any Pi with a 2x20 connector) with this jaunty prototyping HAT kit.

To kick off the Adafruit HAT party, we have this Perma-Proto inspired plug in daughter board. It has a grid of 0.1" prototyping soldering holes for attaching chips, resistors, LED, potentiometers and more. The holes are connected underneath with traces to mimic the solderless breadboards with which you're familiar. There's also long power strips for +3V, +5V and Ground connections to the Pi. Near the top we break out nearly every pin you could want to connect to the Pi (#26 didn't quite make the cut).

This is just the basic version of our Perma-Proto HAT. It comes with a printed circuit board and a single [2x20 GPIO Header for Raspberry Pi](#) to put your Perma-Proto on top of your Raspberry Pi (like a nice little hat...) This version does not come with an EEPROM so you can 'stack' it with other HATs without worrying about an EEPROM address collision.

You can customize your Perma-Proto setup using a [standard 2x20 stacking header](#) or [extra tall 2x20 stacking header](#). You can also swap out the 2x20 header with a [slim 2x20 type if you want it to sit closer to the Pi](#), or [an extra tall one if you want it to sit above the USB/Ethernet ports](#).

A bit of light soldering is required to attach the header to the PCB but it's easy work.

**This hat is only compatible with the Raspberry Pi Zero/A+/B+/2/3 (any Pi with 2x20 connector)! It will not work with the Raspberry Pi Model A or B with 2x13 connector.**

*Our initial version has the +3V and +5V markings in blue, and the GND markings in red, future orders will have these colors swapped to better match a solderless breadboard*

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## TECHNICAL DETAILS

- Header Dimensions: 5mm x 51mm x 12mm / 0.2" x 2" x 0.5"
- PCB Dimensions: 66mm x 57mm x 2mm / 2.6" x 2.2" x 0.1"
- [EagleCAD PCB Files available on GitHub](#)
- [Fritzing Object available in Adafruit Fritzing Library](#)



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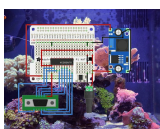
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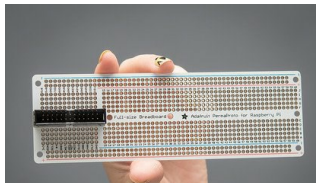
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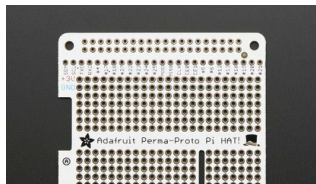
GPIO Header for Raspberry



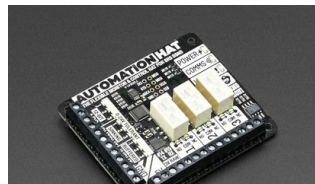
Stacking Header for Pi



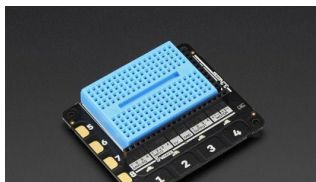
Raspberry Pi 1 Model B+



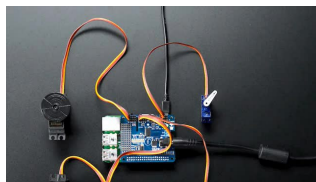
Adafruit Perma-Proto HAT



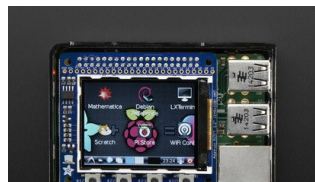
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