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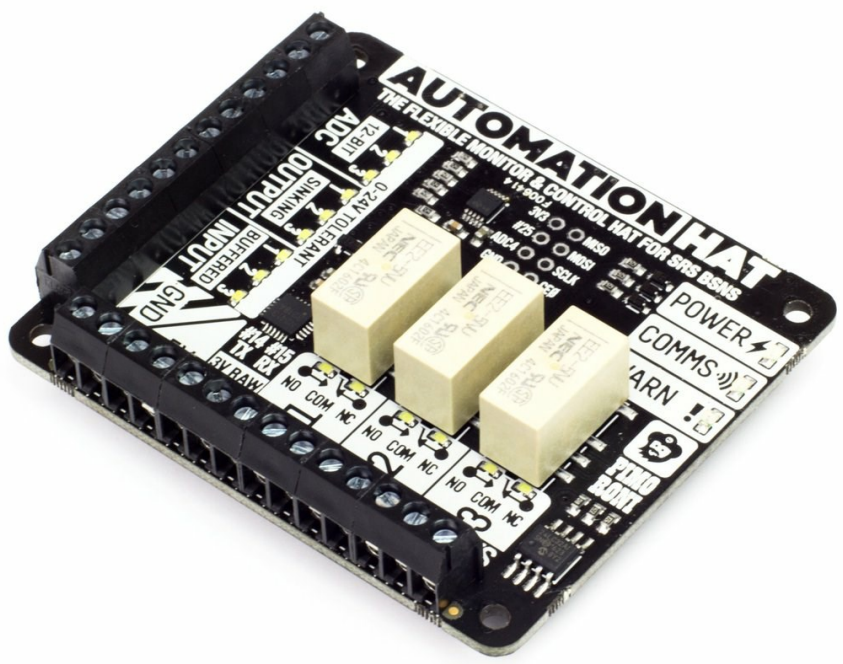
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Automation HAT

Take control of and monitor your world with our ultimate jack-of-all-trades Raspberry Pi HAT!

We've pulled together a great set of features into this home monitoring and automation controller. With relays, analog channels, powered outputs, and buffered inputs (all 24V tolerant) you can now hook up a plethora of goodies to your Raspberry Pi all at once.

Better still each channel has an indicator LEDs which means at a glance you can see what's happening with your setup. Even the analog channels have dimming LEDs that allow you to see the value they are currently sensing - swish!

Ideal for smart home and automation projects, giving your greenhouse intelligent sprinklers, or scheduling your fish feeding!

Features

- 3 x 24V @ 2A relays (NC and NO terminals)
- 3 x 12-bit ADC @ 0-24V ($\pm 2\%$ accuracy)
- 3 x 24V tolerant buffered inputs
- 3 x 24V tolerant sinking outputs
- 15 x channel indicator LEDs
- 1 x 12-bit ADC @ 0-3.3V
- 3.5mm screw terminals
- Power, Comms, and Warn! LED indicators
- SPI, TX (#14), RX (#15), #25 pins broken out
- [Automation HAT pinout](#)
- Compatible with Raspberry Pi 3B+, 3, 2, B+, A+, Zero, and Zero W
- [Python library](#)
- Comes fully assembled (broken out pins require soldering)

Software

As ever, we've made a super-simple to use [Python library](#) to take advantage of Automation HAT's multitudinous functions, with examples to get you started.

Our input, output and relay examples show you how to read the analog and digital inputs, switch the outputs on and off, and control the relays.

Our software does not support Raspbian Wheezy.

Notes

- We recommend you use a set of [brass M2.5 standoffs](#) with Automation HAT to avoid pins contacting the HDMI port if the HAT is pushed down
- Loads for the buffered outputs should be switched on the ground side, i.e. 12/24V (from supply) -> load -> output terminal -> ground (from supply)
- The relays can tolerate up to 2A each and should be switched on the high side
- The sinking outputs can sink a maximum 500mA total across the 3 outputs, so if you use a single channel you can sink the whole 500mA across it.
- The accuracy of the ADC is $\pm 2\%$.
- **Do not use to switch mains voltages!**

Reviews



7 Reviews

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Per Berntsen ★★★★★

Designing a product requiring three relay outputs led me to the Pimoroni Automation Hat for for Raspberry PI. I am happy to say that the unit performs flawlessly and does the job exactly as required. I appreciate the LED indication of relay status and find it very helpful when testing the equipment. I have so far used 5 units and will certainly order more in due time. Excellent product and excellent shipping. Per Berntsen CEO Norant Norway

6 months ago

Pete Willard ★★★★★

The example code shows that it really does what it says it is supposed to do. The documentation is enough to get started but it would really be nice if there was a schematic available so you can gain enough understanding of how the board works to maybe write code for other languages than python.

10 months ago

Doug Schm... ★★★★★

I like this hat. It does what it can do quite well. The relays are well-behaved and work as advertised. I was disappointed in two respects, however. First, the 1-wire comm interface which I use was ignored. Secondly, the 40-pin GPIO interface was not passed up so that another hat or another interface could easily be made with the pins ignored by the automation hat. At least add a header on top so that those signals you don't use can be used by the end-user.

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4.9 ★★★★★
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