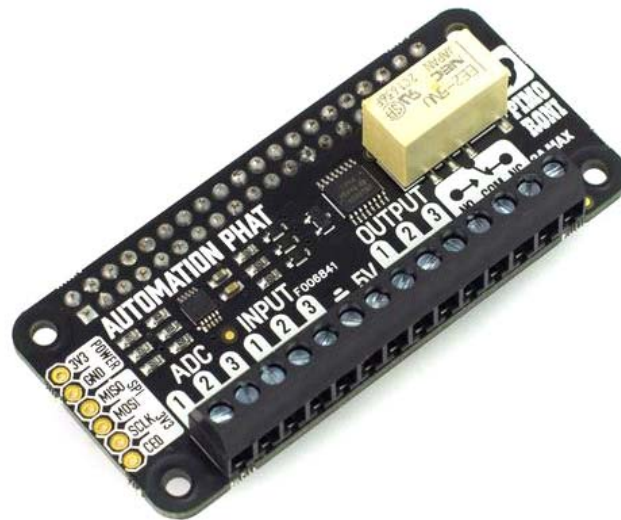


# Automation pHAT

PIM221



Automation HAT's little bro'. The most compact way to take control of and monitor your world!

We've pulled together a great set of features into this home monitoring and automation controller. With a relay, 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.

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

## Features

- 1 x 24V @ 2A relay (NC and NO terminals)
- 3 x 12-bit ADC @ 0-24V (ADS1015)
- 3 x 24V tolerant buffered inputs
- 3 x 24V tolerant sinking outputs
- 3.5mm screw terminals
- SPI pins broken out
- Compatible with Raspberry Pi 3, 2, B+, A+, Zero, and Zero W
- Python library
- **Female header and broken out pins require soldering**

## Software

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

In fact, Automation pHAT uses the same library as Automation HAT, and it uses the presence (or absence) of the SN3218 LED driver chip to autodetect which board (HAT or pHAT) is being used. Nifty!

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 relay.

## Notes

- 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 relay can tolerate up to 2A each and should be switched on the high side