



Pimoroni's Automation pHAT – the little sibling of the Automation HAT – is the most compact way to take control of and monitor your world.

Pimoroni has pulled together a great set of features into this home monitoring and automation controller. With a relay, analogue channels, powered outputs, and buffered inputs (all 24V tolerant) you can now hook up a plethora of devices to your Raspberry Pi all at once. Ideal for smart home and automation projects, giving your greenhouse intelligent sprinklers, or scheduling your fish feeding!

Compatible with all versions of Raspberry Pi that have the 40-pin GPIO header (3, 2, B+, A+, Zero), but makes a perfect compact package when used with the Pi Zero!

Features:

- 1 x 24V @ 2A relay (NC and NO terminals)
- 3 x 12-bit ADC @ 0-24V
- 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+, and Zero
- Python library
- Female header and broken out pins require soldering

Software

Pimoroni has made a super-simple to use Python library to take advantage of Automation pHAT's multitude of 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.

Their input, output and relay examples show you how to read the analogue 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

Unassembled board dimensions: 65.0mm x 30.0mm x 10.0mm / 2.6" x 1.2" x 0.4"

Unassembled board weight: 8.8g / 0.3oz