



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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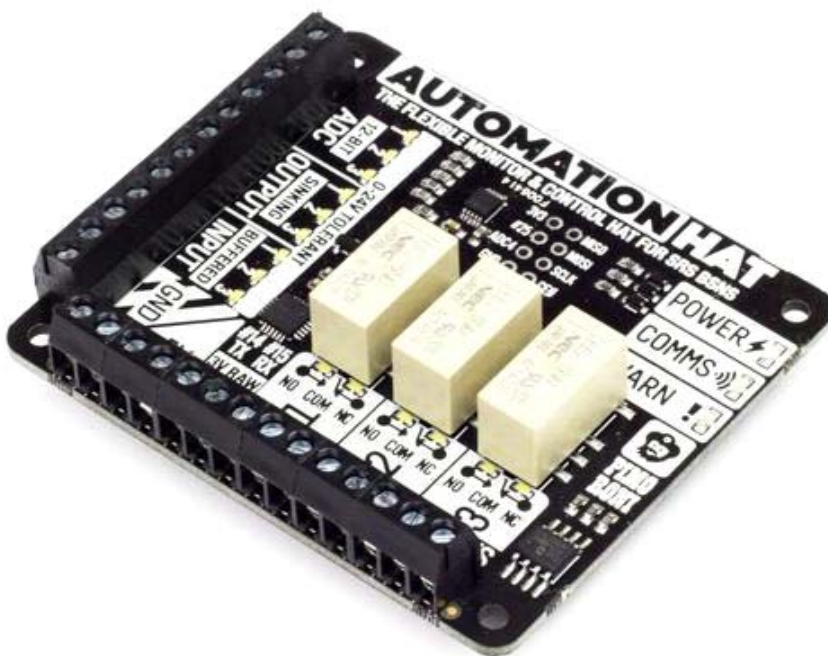
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## Automation HAT

PIM213



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
- 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
- Compatible with Raspberry Pi 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.

## 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