# imall

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!



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## **Unicorn HAT HD**

PIM273



We've stepped up our LED game! Unicorn HAT HD crams 256 RGB LEDs, in a 16x16 matrix, onto a single HAT. High-definition rainbow goodness!

You can still use it for all of the same things as the regular Unicorn HAT, but with 4 times as many pixels it makes much more complex animations possible, including scrolling text, and even low resolution videos.

The bundled ninja diffuser makes the pixels look extra-shiny by providing some subtle diffusion, blurring the lines between each pixel. Simply use four of the nuts to space the diffuser slightly away from the HAT, and the other four to secure it.

#### Features

- 256 RGB LED pixels in a 16x16 matrix
- Pixels driven by ARM STM32F and three STP16CPC26 LED drivers
- Bundled ninja diffuser, plus nuts and bolts
- Unicorn HAT HD pinout https://pinout.xyz/pinout/unicorn\_hat\_hd#
- Compatible with Raspberry Pi 3, 2, B+, A+, Zero, and Zero W
- Python library https://github.com/pimoroni/unicorn-hat-hd
- Comes fully assembled

The ARM chip on Unicorn HAT HD does all of the heavy lifting, meaning that you can just bung data to it and it'll take care of the rest. It acts as the man-in-the-middle between your Pi and the three STP16CPC26 LED drivers that actually drive the LEDs.

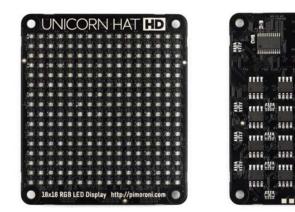
#### Software

Our Python library will have your Unicorn HAT HD pooping out high-definition rainbows in a jiffy. There's a stack of examples too, to show you how to create slick animations, simulate the Game of Life, a forest fire or a flickering candle, and even scroll text!

#### Notes

- **Photo-sensitivity warning:** flashing, strobing, and patterns of lights may cause epileptic seizures. Always take care and immediately stop using if you feel unwell (dizziness, nausea, affected vision, eye twitching, disorientation).
- **Power:** Unicorn HAT HD requires a >2A microUSB power supply for your Pi. We recommend the official Raspberry Pi power supply.

88



https://shop.pimoroni.com/products/unicorn-hat-hd 6/27/2017