

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.



