# Inky wHAT (ePaper/eInk/EPD)  PIM433

Inky wHAT is a 400x300 pixel electronic paper (ePaper / eInk / EPD) display for Raspberry Pi, a larger version of our popular Inky pHAT display, with more than 5x the number of pixels, and available in three colour schemes - red/black/white, yellow/black/white, and black/white.

The larger display opens up many more possibilities, with significantly more space to display information. Like Inky pHAT, the display is crisp and readable in bright sunlight.

Use Inky wHAT as a detailed weather display, as a calendar, for daily news reports, to list household chores, or you could even use it as a tiny DIY e-reader to read your e-books.

## Features

- 4.2" EPD display (400x300 pixels)
- 40-pin female header included to boost height for Pi B+, 2, 3, 3B+
- Standoffs included to securely attach to your Pi
- Additional pins, including I2C and SPI, broken out
- Inky wHAT pinout   https://pinout.xyz/pinout/inky_phat
- Compatible with Raspberry Pi 3B+, 3, 2, B+, A+, Zero, and Zero W
- Python library   https://github.com/pimoroni/inky
- Comes fully assembled
  Multi-colour EPD displays, like the one on Inky wHAT, use ingenious electrophoresis to pull coloured particles up and down on the display. The coloured particles reflect light, unlike most display types, meaning that they're visible under bright lights. It takes approximately 25 seconds to refresh the display.

Everything comes fully-assembled, and there's no soldering required! The display is securely stuck down to the Inky wHAT PCB and connected via a ribbon cable. Just pop Inky wHAT on your Pi and run our installer to get everything set up!

We've also broken out some handy pins including I2C and SPI, on the back of Inky wHAT, letting you connect additional devices like our breakouts and allowing you to show their data right on the display.

Inky wHAT work with any 40-pin version of the Pi, including Pi Zero and Pi Zero W.

## Software

Our Python library takes the stress out of displaying text and images on Inky wHAT, and we've put together a few examples to show off Inky wHAT's capabilities. We've put together a one-line-installer for the Python library too, to make installation a little more straightforward.

**Our software does not support Raspbian Wheezy.**

## Notes

- Pro-tip: you can treat the three-colour displays as black and white
  - `InkyPHAT("black")` - and they'll refresh as quickly as a black and white display, in just a couple of seconds
- **The Inky wHAT display is made from glass so it's pretty fragile. Be careful not to drop it or press too hard on it, or it will crack. When fitting the wHAT, grip at the edges of the board rather than pressing on top.**
- Overall dimensions: 91x77x8.5mm (WxHxD, depth includes header and display)
- Display usable area dimensions: 84.8x63.6mm (WxH), 4.2" diagonal