



The Pimoroni Speaker pHAT crams an I2S DAC and mono amplifier, a tiny 8Ω 2W speaker, and a 10 LED bar graph all onto one teeny little pHAT. It's the neatest way to add audio to your Pi project, and its beautiful artwork evokes an 80s boombox!

Pimoroni isn't claiming audiophile sound quality, but it's perfect for fun little projects where you want to add sound output - speech, notification sounds, or light music, for example.

Why not combine it with a little USB microphone to make a tiny voice-activated assistant in the style of Amazon's Echo? Or set up a simple Flask API and send audio notifications to it from IFTTT with a simple HTTP request.

It comes as a kit, so you'll have to solder on the female 40 pin header, and screw and solder the speaker on.

## Features:

- I2S audio DAC with 3W mono amplifier (MAX98357A)
- Default output of 0.45W/26.5dB
- 8Ω 2W Mylar speaker
- Routed holes to channel sound
- 10 bright white bar graph LEDs
- SN3218 LED driver chip
- Compatible with Raspberry Pi 3, 2, B+, A+, and Zero
- Female header and speaker require soldering (includes a piece of bare wire to solder the speaker)

## Kit includes:

- Speaker pHAT
- 8Ω 2W Mylar speaker
- 2x20 pin female header
- 50 mm 24AWG bare wire
- 4x M2x8 black nylon bolts
- 8x M2 black nylon nuts

Note: Pi Zero not included!

Assembled Dimensions: 65.2mm x 30mm x 11.4mm / 2.6" x 1.2" x 0.45"

Assembled Weight: 15.4g / 0.55oz

## Notes

- The DAC sums the two audio channels to mono, rather than just outputting one channel or the other, meaning that you get both channels of audio out of the single speaker
- The dimensions of the speaker: H 6mm x L 40mm x 20mm.
- Speaker pHAT won't fit on top of a Pibow Coupé or Pibow Zero due to the height of the speaker.
- It's important that you use four of the included eight nuts as spacers to space the speaker slightly away from the PCB. Not doing this, and having the speaker cone touching the PCB, can result in sound degradation and even damage to the speaker.