



ReSpeaker 4-Mic Array for Raspberry Pi

DEV-14645

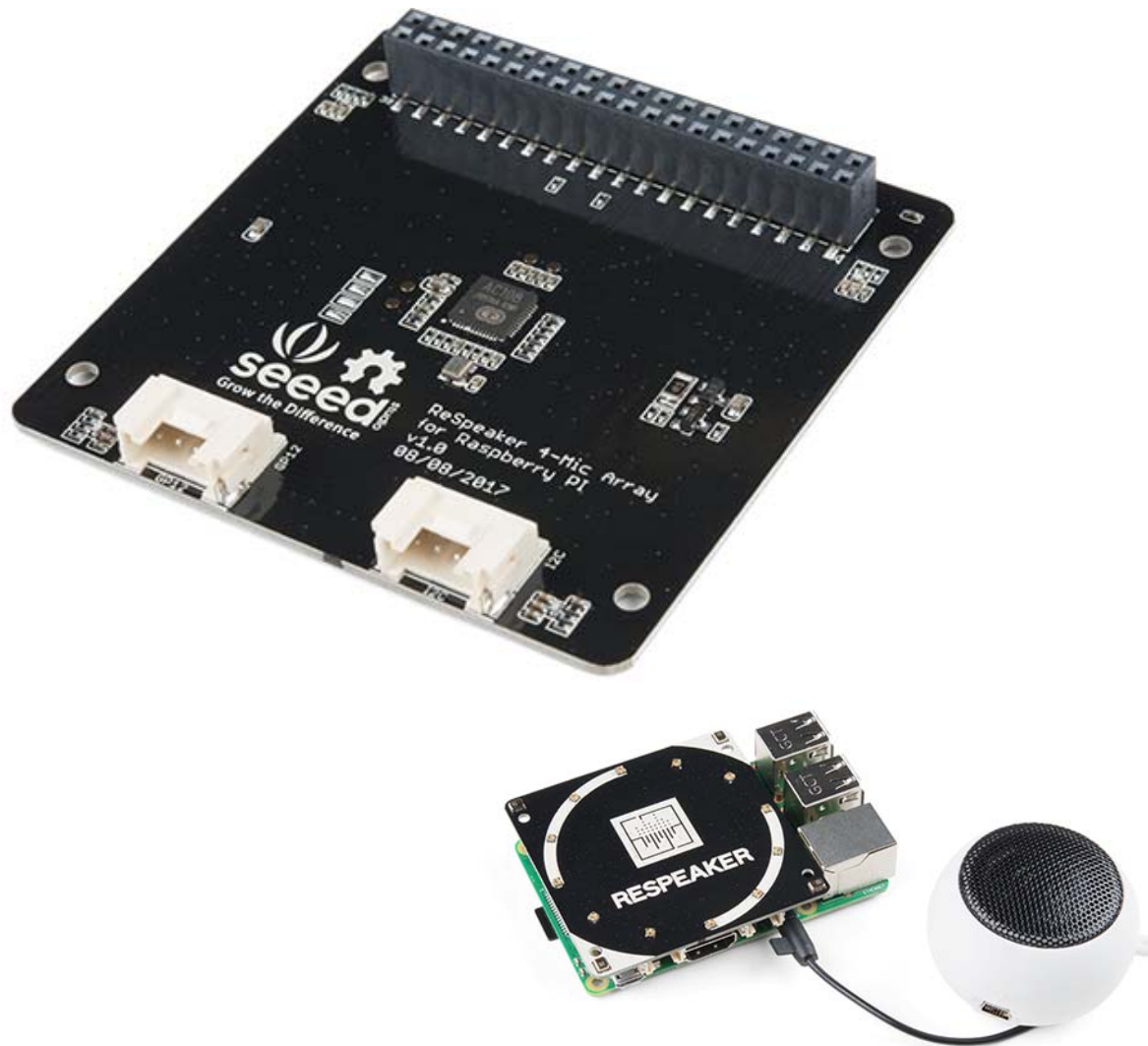
The ReSpeaker 4-Mic Array is a quad-microphone expansion board for Raspberry Pi designed for AI and voice applications. With the ReSpeaker, you will be able to build a more powerful and flexible voice project with your Raspberry Pi that integrates Amazon Alexa Voice Service, Google Assistant, and more!

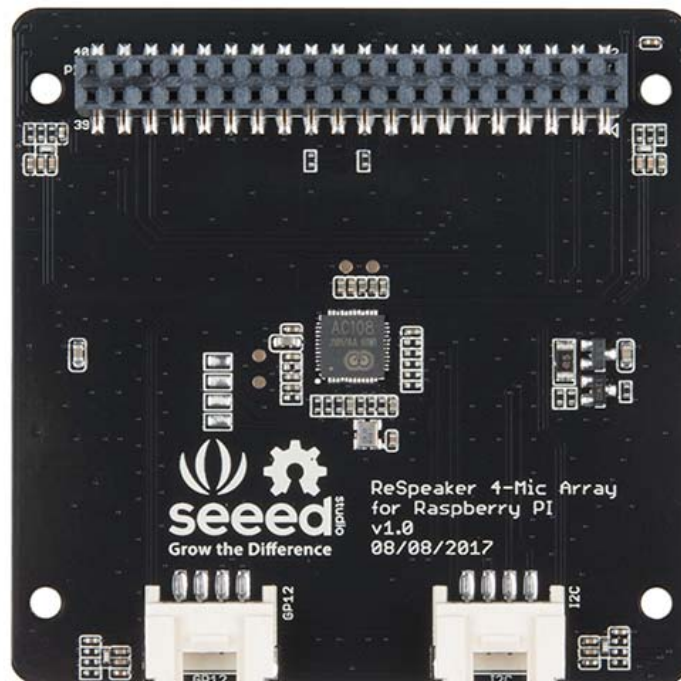
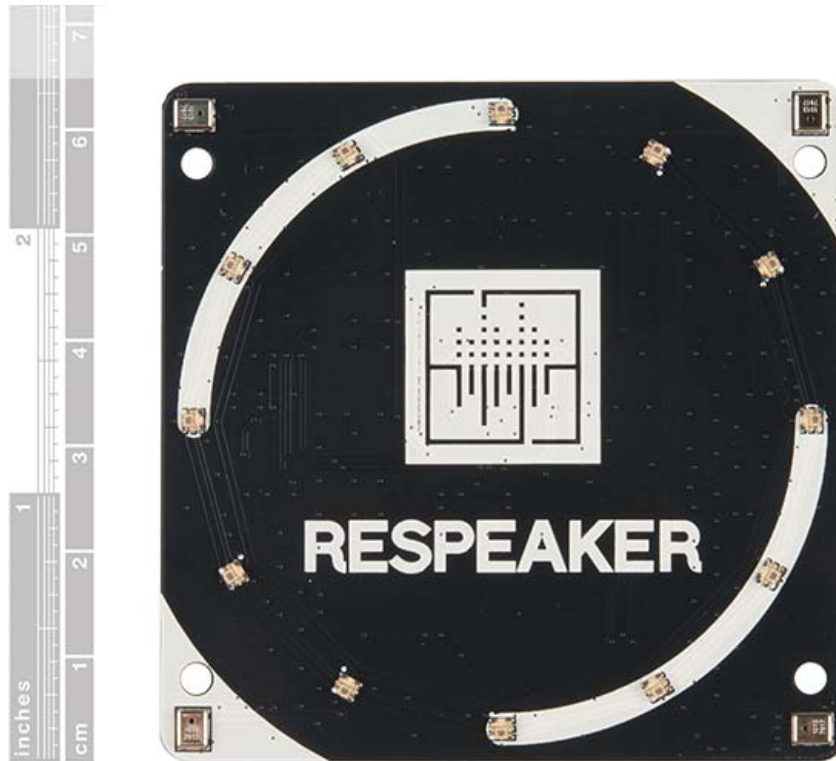
The ReSpeaker is developed based on the AC108 IC, a highly integrated quad-channel ADC with I²S/TDM output transition for high definition voice capture. This HAT is also equipped with LED ring, which contains 12 APA102 programmable LEDs. That, combined with the four microphones mentioned beforehand, your Raspberry Pi will have the ability to do VAD (Voice Activity Detection), and estimate the DOA (Direction of Arrival), just like an Amazon Echo or Google Home.

Note: The ReSpeaker does NOT include a Raspberry Pi or any actual speaker, both will need to be purchased separately. We recommend the Raspberry Pi 3 B+ and the Hamburger Mini Speaker, respectively!

FEATURES

- 4x Analog Microphones
- 3x Meter Radius Voice Capture
- 2x Grove Interfaces
- 12x APA102 Programmable RGB LEDs (connected via SPI interface)
- Software Algorithm: VAD (Voice Activity Detection), DOA (Direction of Arrival), and KWS (Keyword Search)
- Raspberry Pi compatible (Support for Raspberry Pi Zero and Zero W, Raspberry Pi B+, Raspberry Pi 2 B, and Raspberry Pi 3 B)
- Dimensions: 65mm x 65mm x 9mm





<https://www.sparkfun.com/products/14645> 5-15-18