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!

Contact us

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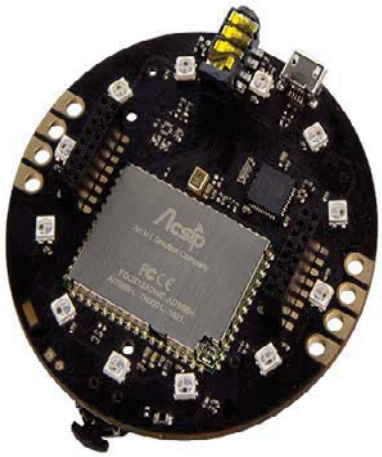
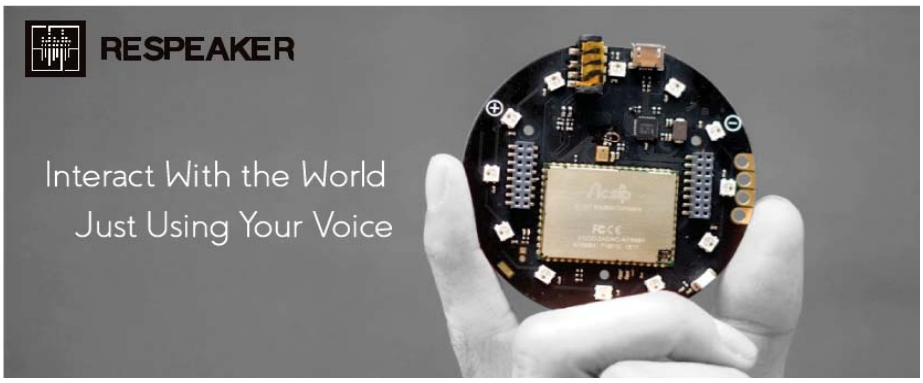
ReSpeaker Core - Based On MT7688 and OpenWRT

SKU 102010088



Speech recognition with or without the internet
Web-based App set-up
Wireless Streaming via Airplay/DLNA
For Python and C/C++ developers
Enormous plug-ins
Extendable with Mic Array. Grove Extendable

Description

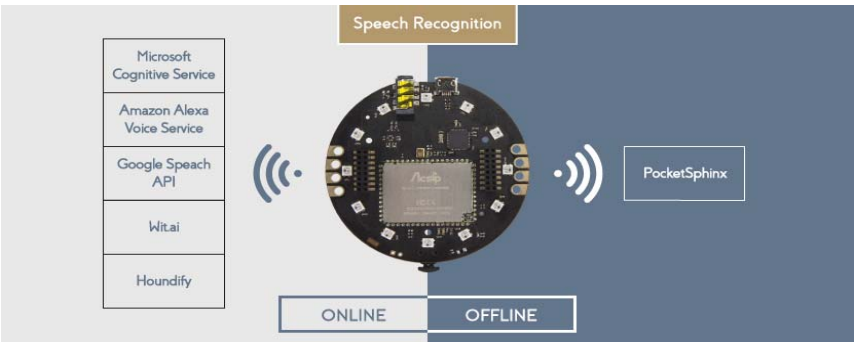


ReSpeaker is an open modular voice interface to hack things around you. Let you interact with your home appliances, your plant, your office, your internet-equipped devices or any other things in your daily life, all by your voice.

WHAT IS RESPEAKER

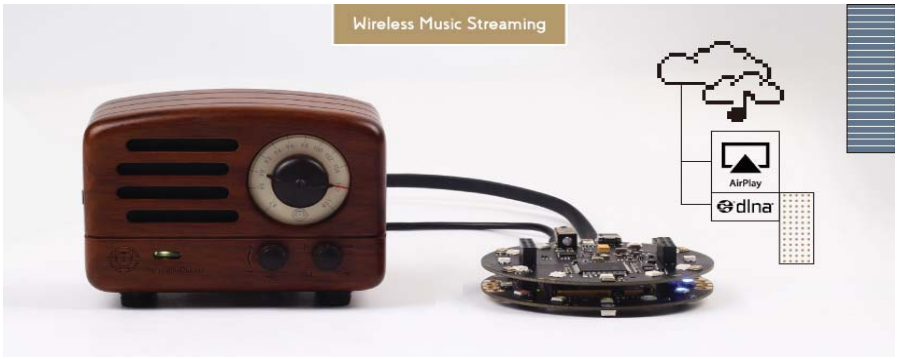
It’s a voice-enabled extension for your surroundings

ReSpeaker supports both online cognitive services and offline lightweight speech recognition engine. You can add ReSpeaker to things around you to make them smart(smarter).



It’s a device for music streaming

Voice interface has never been apart from music entertainment, so does ReSpeaker. ReSpeaker supports Airplay/DLNA for wireless music streaming. Just connect ReSpeaker to any ordinary speaker with an AUX cable, then you can start enjoying the music you love without pressing a single button.



It’s a learning tool for kids

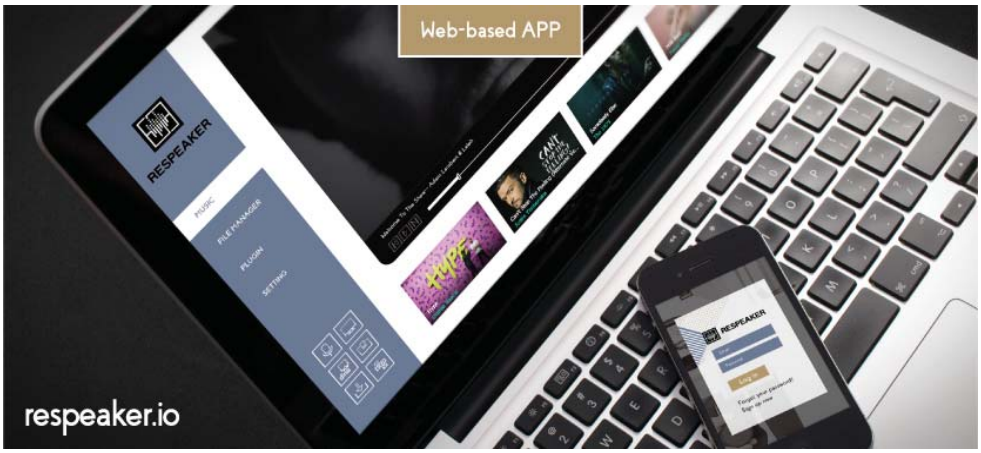
Rather than the on board MT7688 Wi-Fi module which runs the Linux based OpenWrt, ReSpeaker is also powered by the ATmega32u4 chip and absolutely Arduino compatible, which means, we can use ReSpeaker as a powerful Arduino board and do many ‘Arduino’ things. It’s for learning, it’s for practicing, and it’s for fun.

WHO’S RESPEAKER FOR

Installation-free APP For Everyone

The exposed PCB design does not mean ReSpeaker is just for people who knows a lot about

ReSpeaker uses a user-friendly Web-based App that can be set up by anyone in just minutes. In the App you can access a range of rich featured applications that ReSpeaker has provided, includes music streaming, file manager, plug-in, customized settings and more. Click the image below to visit the web app or directly go to: respeaker.io



Always-growing Features

The plug-in system is specially designed for the users to share and download their voice interactive projects as a simple plug-in to the ReSpeaker module. It has significantly simplified the use of ReSpeaker as anyone who has a ReSpeaker can install the plug-ins they want with a single click, and after that they can run voice interaction just like any others.

Developer-friendly

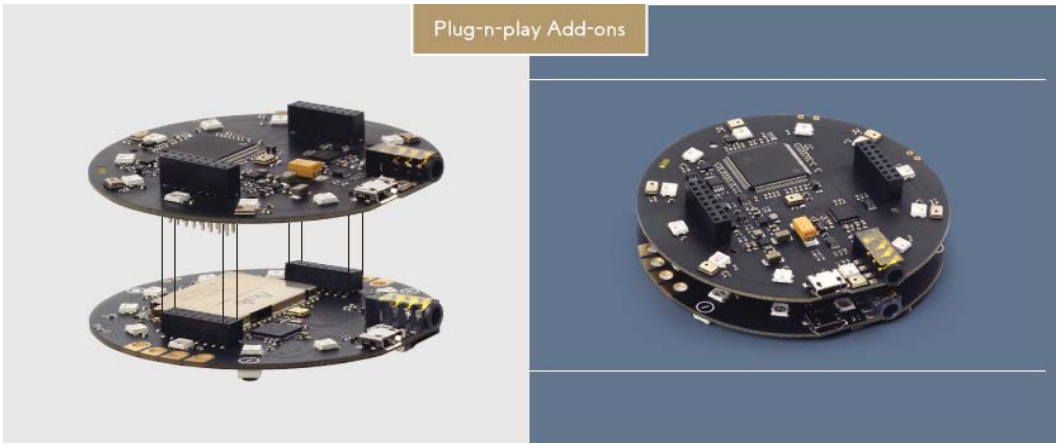
Developers can of course achieve more with the SDK we provide to develop their own voice interaction projects.

AND THERE IS MORE

Modular Design and Extendable Add-ons

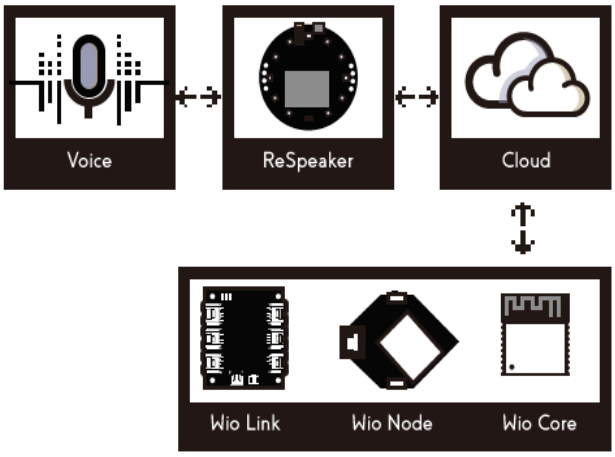
The far-field MIC Array allows your ReSpeaker to be able to recognize your location and hear you from across the room even while the music is playing.

And the Grove extension board brings even more possibilities as you can connect various Grove sensors and actuators to extend its capabilities. The two onboard expansion headers also offer I2S, I2C, AUX, USB 2.0, GPIOs and many other interfaces that you can use for more applications.



RESPEAKER MEETS WIO

We make ReSpeaker compatible with the Wio famil for you to add voice interaction with any of your IoT devices that is built on Wio. Simply pair your ReSpeaker to your Wio product using our Web App, then you can voice control your Pet Feeder built to dispense treats, or ask your Smart Plant if she need some water.



DEMO

We have demos with step-by-step tutorials to help you getting started with your first project using ReSpeaker.

Voice Interaction Between You And...

KEY FEATURES

Set Your Hands Free
Speech recognition with or without the internet.

Installation-free App
Set all things up on web-based App.

Wireless Streaming
Stream music via Airplay/DLNA.

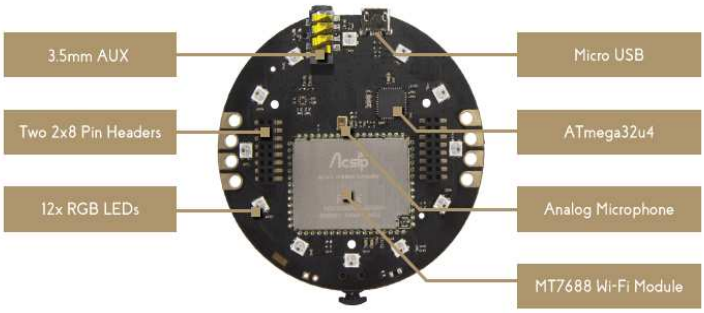
Easy-to-use SDK
For Python and C/C++ developers.

Growing Features
Download the plug-in to enrich its features and functionalities.

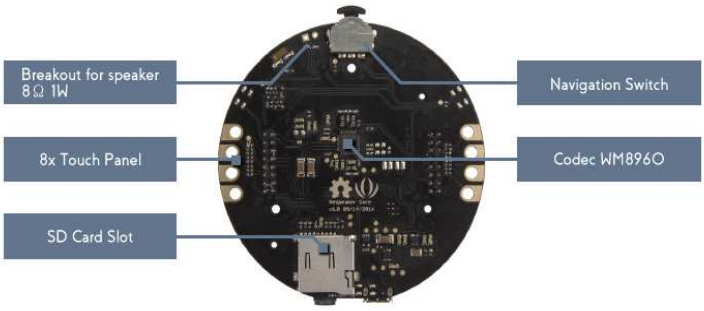
Plug-n-play Add-ons
Extendable with Mic Array, Grove Extension Board, Grove Modules.

TECH SPEC

ReSpeaker Core - Front



ReSpeaker Core - Back



AI7688 Wi-Fi Module

Operation system: GNU/Linux based OpenWrt

Wi-Fi Network: Support Legacy 802.11b/g and HT 802.11n modes

Expansion: Two expansion headers for I2C, GPIO and USB 2.0 host

Interfaces: Built-in 3.5mm AUX port, Micro USB and SD card slot

ATMega32U4 Coprocessor

USB CDC virtual serial port for linux console

12 programmable RGB LED indicators

8 on board touch sensors

Codec WM8960

DAC SNR 98dB (‘A’ weighted), THD -84dB at 48kHz, 3.3V

ADC SNR 94dB (‘A’ weighted), THD -82dB at 48kHz, 3.3V

Stereo Class D Speaker Driver with 87% efficiency (1W output)

On-chip Headphone Driver

40mW output power into 16Ω at 3.3V

THD -75dB at 20mW, SNR 90dB with 16Ω load

On-chip PLL provides flexible clocking scheme

Sample rates: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48 kHz

Power Supply: 5V DC

Dimensions: 70mm diameter

Weight: 17g

PACKING LIST

1x ReSpeaker Core

1x 8G Class 10 Micro SD Card