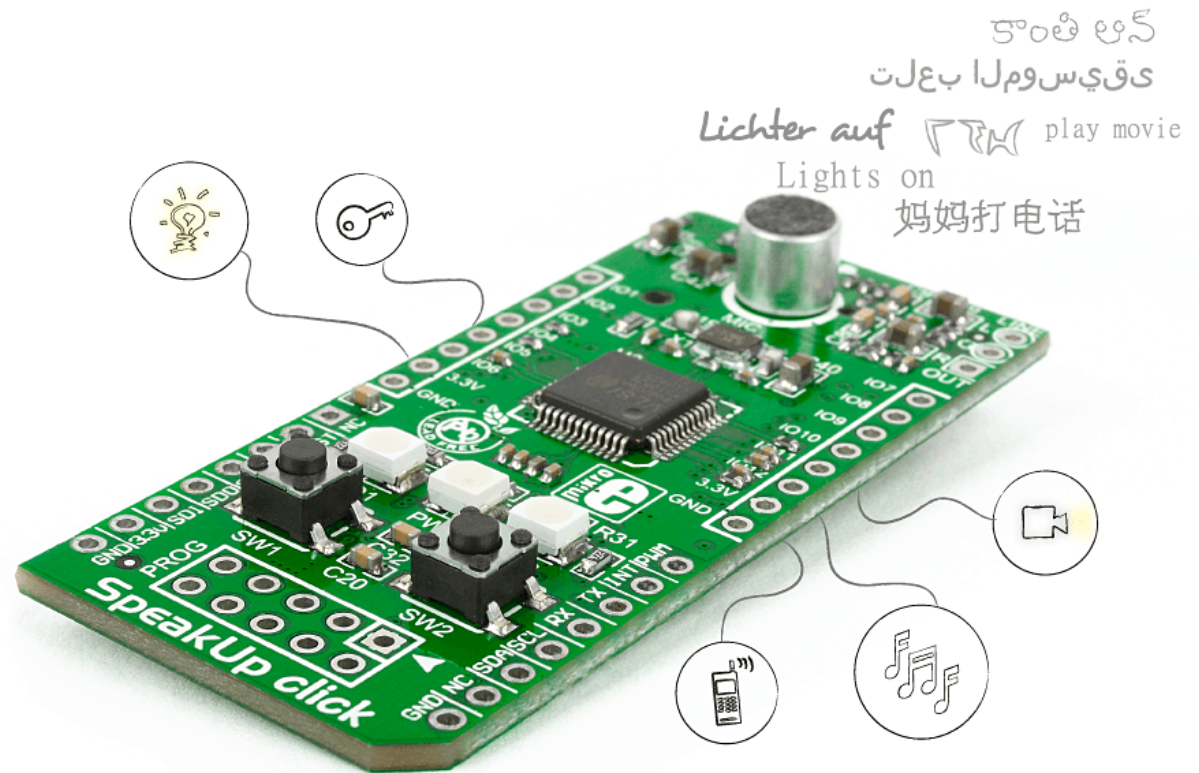


SpeakUp¹ I'm listening.

The SpeakUp is a speech recognition click™ board. You can set it up to recognize over 200 different voice commands and have the on-board MCU carry them out instantly.

PREORDER NOW

shipping starts April 28th



Easy to
configure



Over 200
commands



Ultra fast
operation



Standalone
mode

Simple & Straightforward

SpeakUp learns from scratch, so you can make it understand your commands spoken in any language, dialect or slang.

It listens and learns...

Using a simple interface on your computer, you record a word or phrase (up to 5 seconds) and assign it an instruction. Repeat for as many commands as you need.



...understands and obeys

When you put it to work, it listens to what you're saying, matches the sound to one of the pre-recorded commands, and triggers the specified action which the on-board MCU executes.

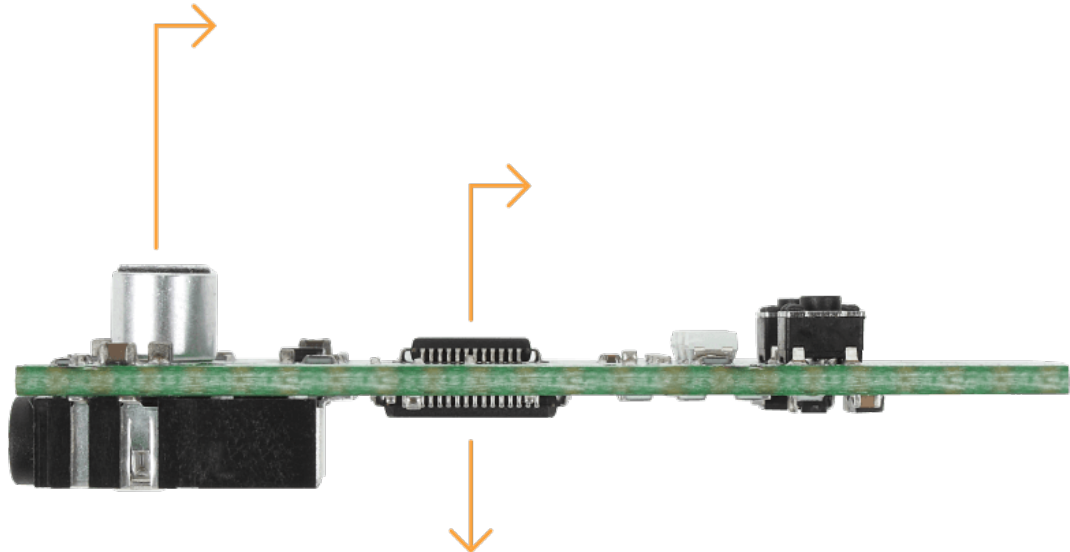
Ins & Outs

What gives the SpeakUp its speech recognition capabilities is the firmware we developed for the on-board MCU. It's based on the DTW algorithm, which makes it decisive, it turns your talk into action almost instantly.

Input:

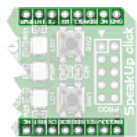
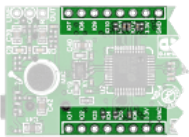
Sound is received through an **on-board microphone**. There's also a **3.5mm jack** for connecting an external microphone.

Between the mic and the MCU sits a **VS1053** IC with a built in stereo-audio codec to process the raw signal.



Output: After the processed sound has been forwarded to the **STM32F415RG** MCU that interprets the voice command, there are two output options which can be utilized at the same time or separately:

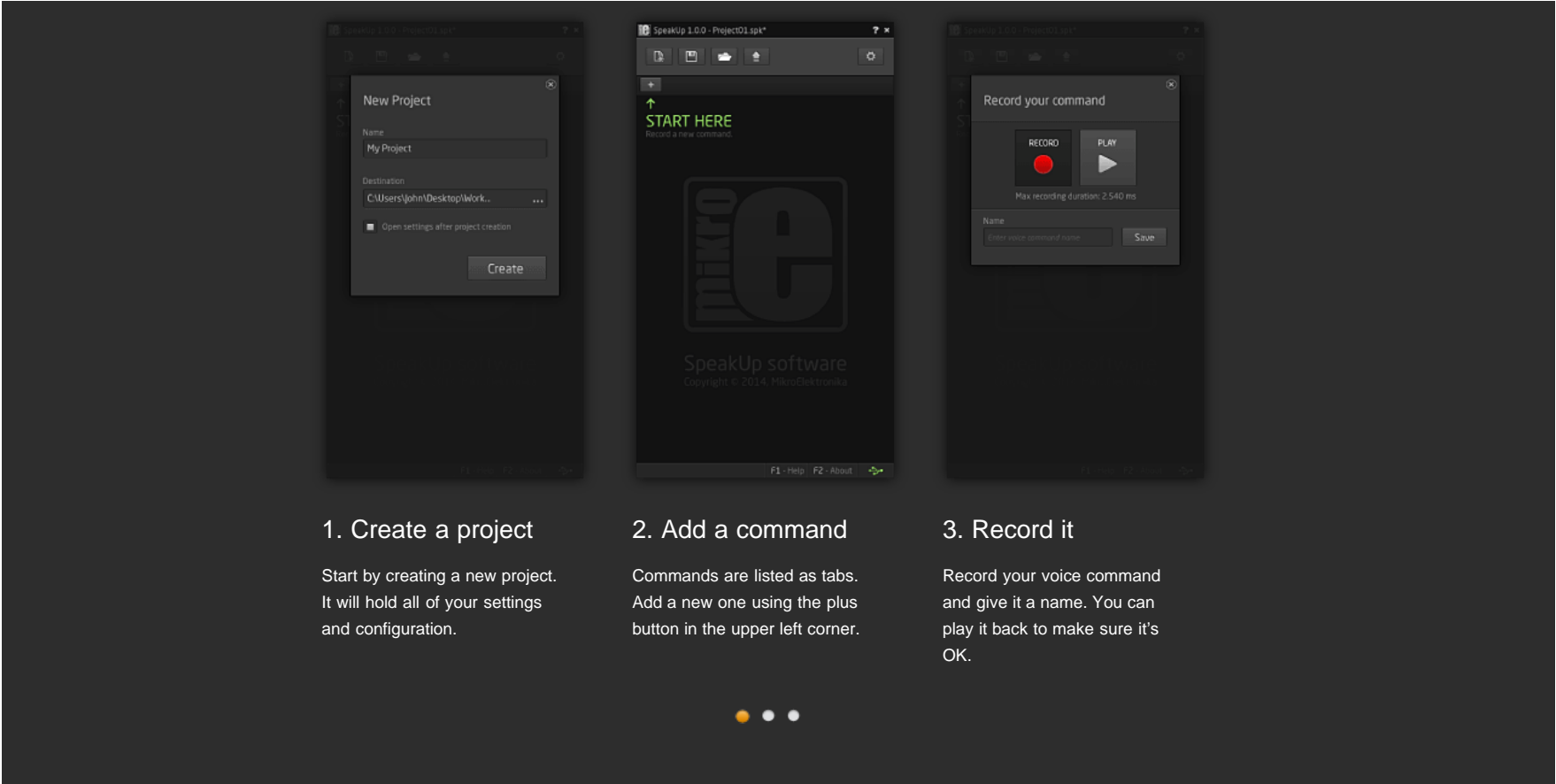
**STANDALONE
MODE:** On-board
MCU directly controls
external devices using
12 user programmable
GPIOs.



CLICK™ MODE:
Sends index of the
matched voice
command to a
selectable interface:
USB or UART.

Software Makes It Easy

Recording commands and assigning actions is dead simple thanks to the free software tool for programming the SpeakUp. First, connect the SpeakUp to your computer using a USB cable. It will show up as a HID device, so no special drivers are required. Just launch the app and start tinkering.



1. Create a project

Start by creating a new project. It will hold all of your settings and configuration.

2. Add a command

Commands are listed as tabs. Add a new one using the plus button in the upper left corner.

3. Record it

Record your voice command and give it a name. You can play it back to make sure it's OK.

Turn Talk To Action

Wouldn't you rather issue verbal commands and have your machines comply, instead of pressing keys, pushing buttons and flipping switches all the time? There's a wide range of applications for the SpeakUp.



Command your lights, doors and home appliances.



Create voice commanded remotes for TVs or media centers.



Reduce complexity and cost of control interfaces.



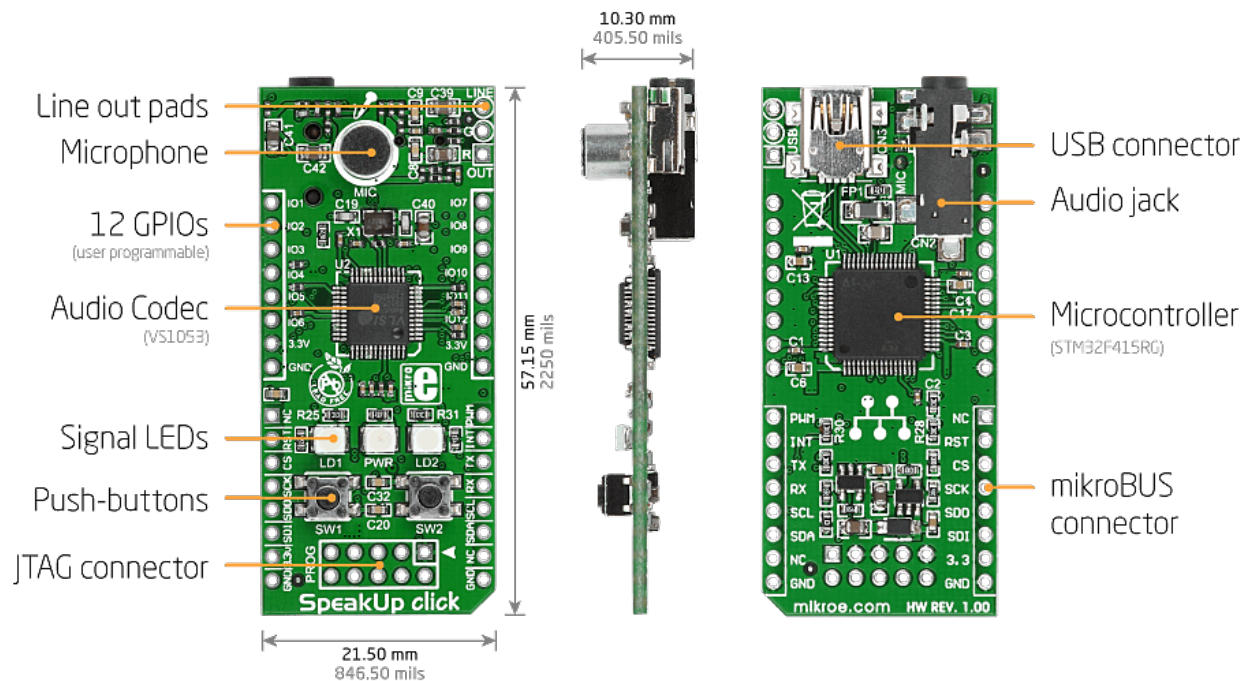
When you do something with both hands and voice command is the only option.



Examples comming soon!

Tech Specs

Along with its key components, the tiny click board packs other useful bits like two buttons for recording or deleting voice commands manually, three signal LEDs give recognition feedback and indicate power.



Microphone

- Sensitivity: $-44 \pm 3\text{dB}$
- Frequency range: 100Hz to 20.000Hz
- Signal to noise ratio: 56dBA



Microcontroller

- STM32F415RG (ARM Cortex-M4)
- 1024kB Flash, 192kB RAM
- 168MHz operation



Audio codec

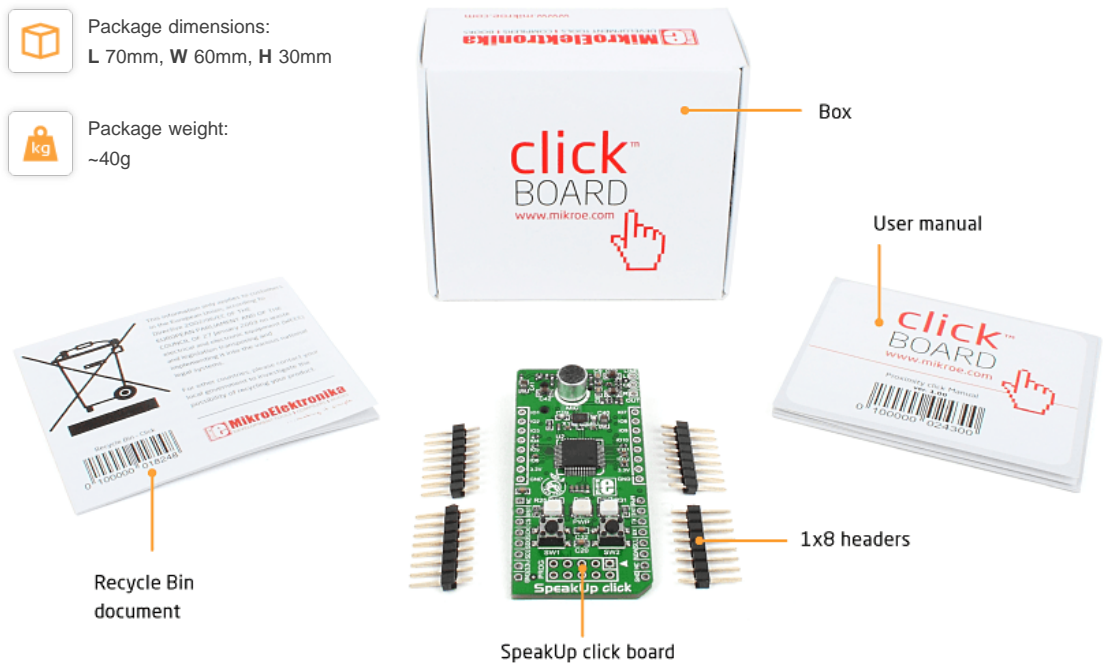
- VS1053 stereo audio codec
- Streaming support
- Line out pads



Connectivity

- 12 programmable GPIOs
- mikroBUS connector
- USB MINI-B connector

What You Get










Preorder Now For Shipping On April 28th

CUSTOMIZATION: We can modify our products to suit your requirements, click [here for details](#).

MIKROE-1534	SpeakUp click
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- Visual TFT
- Visual GLCD
- Package Manager
- GLCD Font Creator
- Timer Calculator


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- mikromedia shields
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- Storage
- Real Time Clock
- Display
- Measurement
- Audio & Voice
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