CH13-A - Piezo CC

Connect a piezo speaker to a Bit Board and control it with code.

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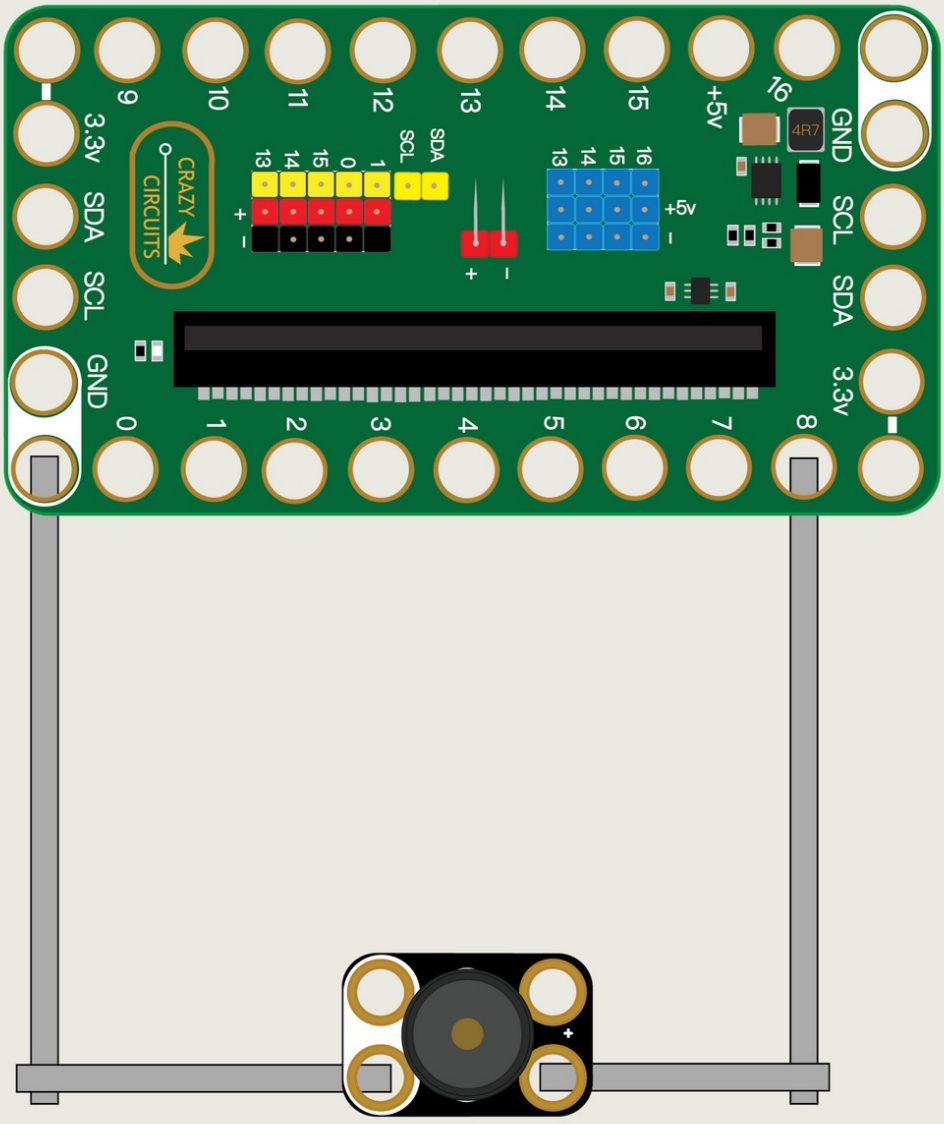

INTRODUCTION

Connect a piezo speaker to a Bit Board and control it with code.

We'll explore how we can make sounds using a piezo speaker.

TOOLS:

- Computer (1)

PARTS:

- Crazy Circuits Bit Board (1)
- micro:bit (1)
- Maker Tape (1)
  1/8" Wide
- Crazy Circuits Piezo Speaker Chip (1)

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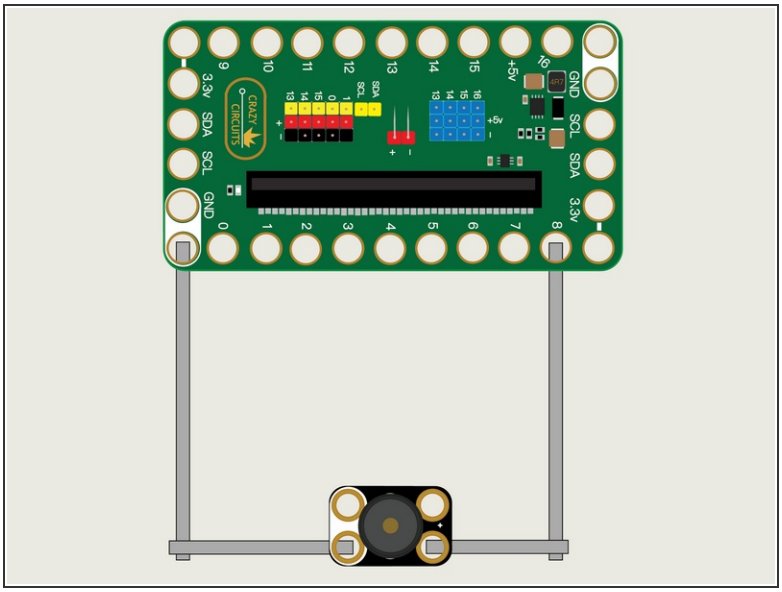
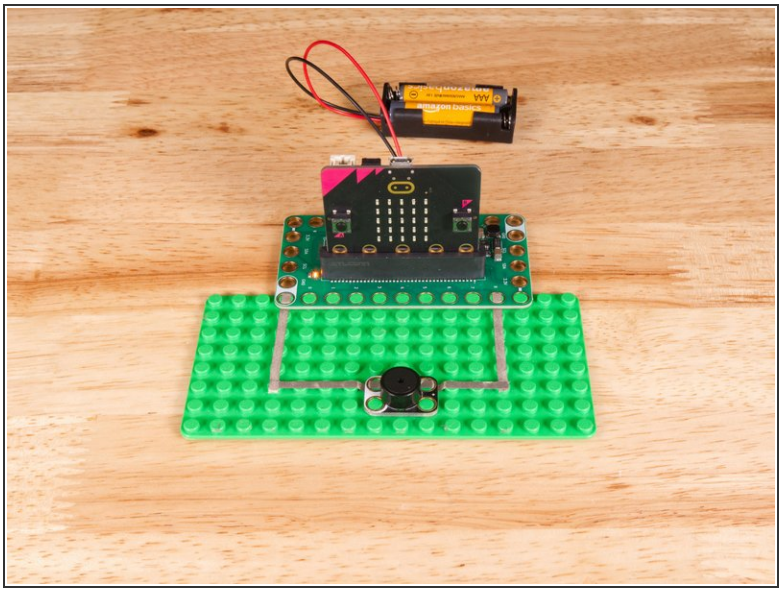
Step 1 — Connect the Piezo

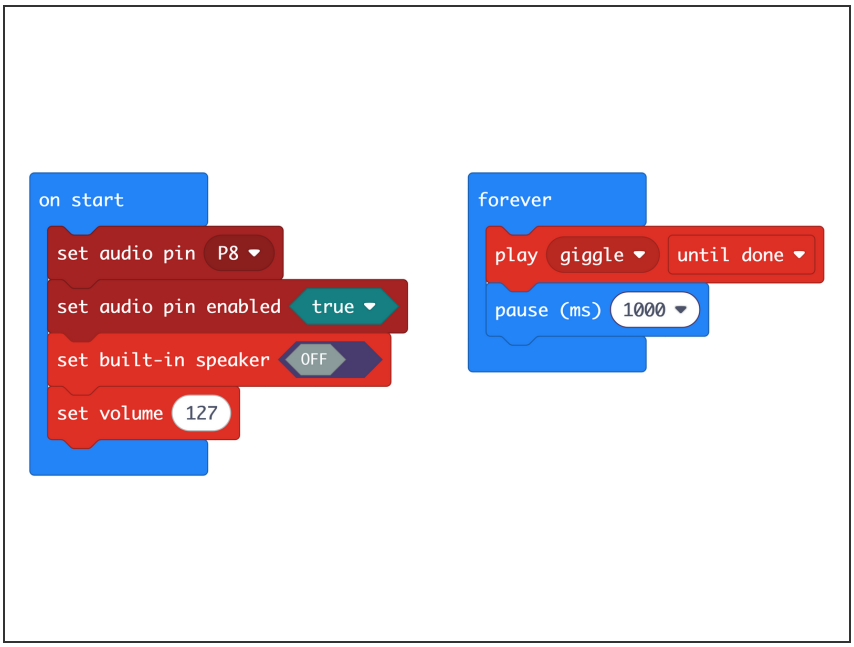




- We'll use **Maker Tape** to connect the Piezo to the Bit Board on a LEGO baseplate.
- The Piezo will connect to **Pin 8** and to **Ground** (GND).

You'll notice the **Ground** on the Bit Board (as well as the Piezo and other Crazy Circuits components we'll use) is color coded **White**.

Step 2 — Load the Code



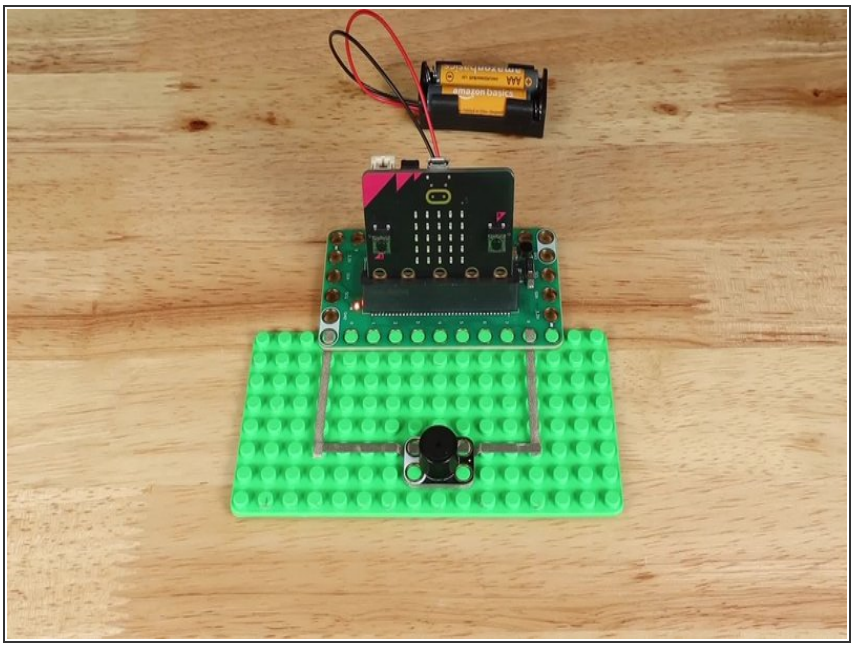
- If you've never used a micro:bit before you'll want to check out this guide: Bit Board V2 Setup and Use
- We're going to load the following code for our **Piezo CC** program: https://makecode.microbit.org/_0saiRVWVD...

⚠ The micro:bit (since the release of version V2) has included a built-in piezo speaker on the back. *This guide will show you how to use the Crazy Circuits Piezo specifically.* We'll cover choosing between the two piezos in the next guide.

It may be worth taking a quick look at the set Audio Pin page for more in-depth information.

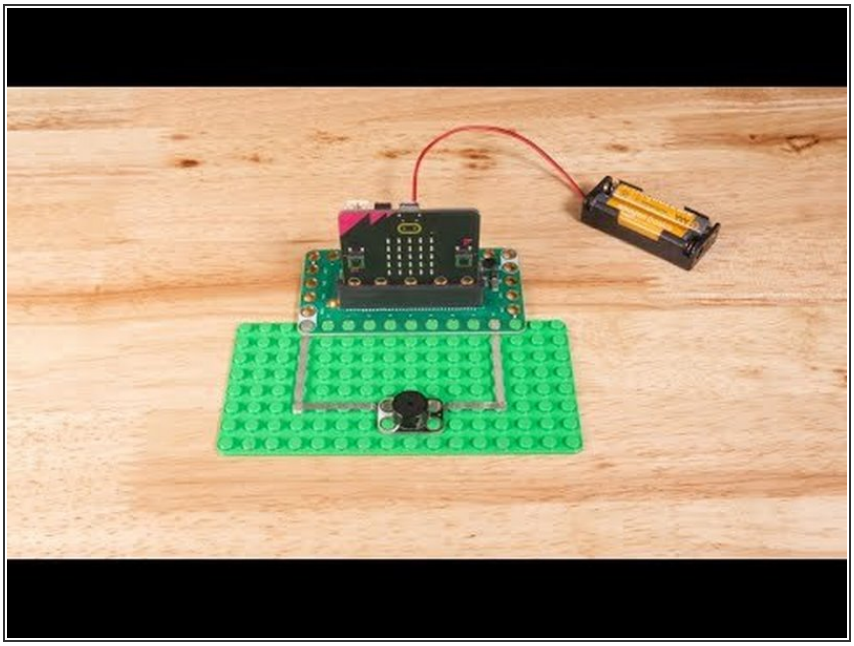
- If you want to edit the code and explore a bit, check out the options for the play block: **until done**, **in background**, and **looping in background**.

Step 3 — Test it Out!



- Once the code is loaded it should start running immediately.
- ⓘ You can power the micro:bit via the USB cable you used to load the code or you can use a battery pack plugged into the Bit Board.
- The micro:bit will play a sound, wait one second, then play it again, and repeat.

Step 4 — Follow Along



- Follow along with our recorded Live Stream!
- ⓘ You can watch the full video of us walking through this project, along with explaining and exploring the code: https://www.youtube.com/live/3olw8CrFukM...