



## micro:bit | Sounds

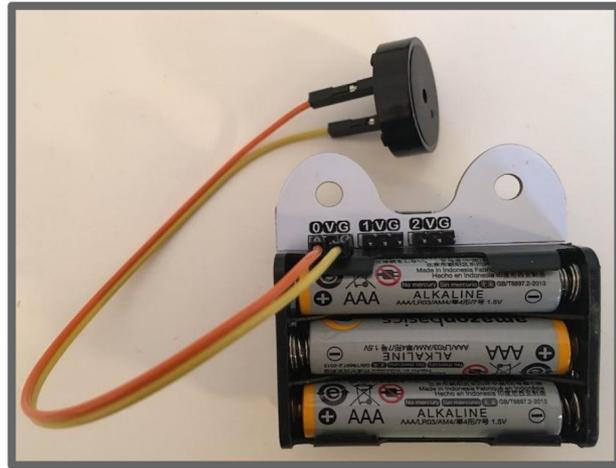
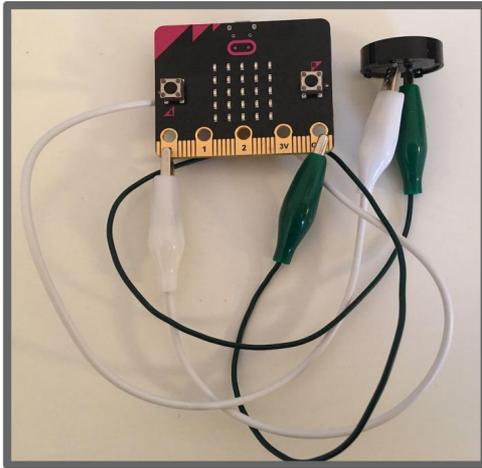
Libraries: **Tone**

Blocks from: **Control**

**Operators**

**Variables**

On a micro:bit v1, connect a piezo speaker to pin 0 using alligator clips or an extension board. The micro:bit v2 has a built-in speaker.



Click a *play note* block to play one note. Experiment with the note, octave, and duration to make different notes.

play note **c** octave **0** for **500** ms

Put *play note* blocks together to make tunes.

play note **c** octave **0** for **500** ms

play note **d** octave **0** for **500** ms

play note **e** octave **0** for **500** ms

play note **c** octave **0** for **500** ms

Select **Open** and choose the **Music** folder to see more examples of songs!

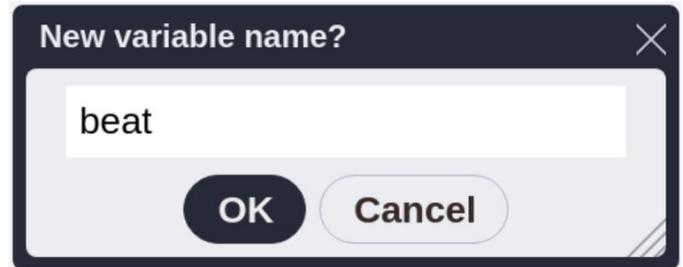


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Using a variable for note durations lets you change the speed. Click on the **variables** category to create a new variable.

**Variables**

Add a variable



Now you can customize the length of the note easily in the *play note* block. Use the *repeat* block for parts of the song that repeat.

```
when started
  set beat to 200
  repeat 2
    play note c octave 1 for beat ms
    play note d octave 1 for beat ms
    play note e octave 1 for beat ms
    play note c octave 1 for beat ms
  repeat 2
    play note e octave 1 for beat ms
    play note f octave 1 for beat ms
    play note g octave 1 for 2 x beat ms
```

What happens when you change the beat from 200 to 50?

```
set beat to 50
```

Want to make a sound effect?  
Try out this script!

```
for i in 50
  play midi key i + 50 for 3 ms
```