micro:bit | Sounds, Part 1
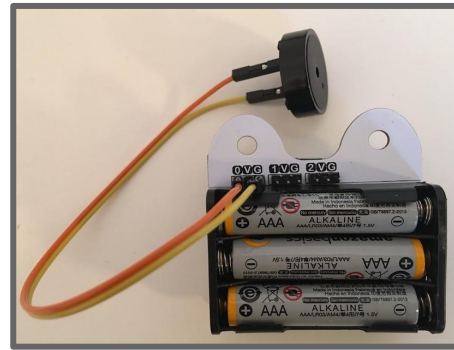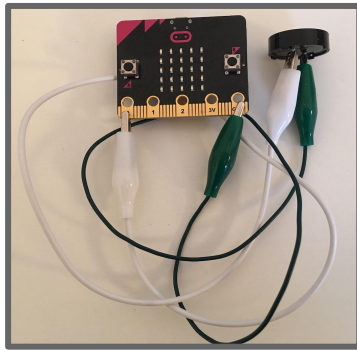
Connect the micro:bit to MicroBlocks.

Add the Tone library: Libraries + ■ **Tone**

Connect a piezo speaker to pin 0 using alligator clips or an extension board.

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 during 500 ms

Put *play note* blocks together to make tunes.

play note C octave 1 during 400 ms
play note D octave 1 during 400 ms
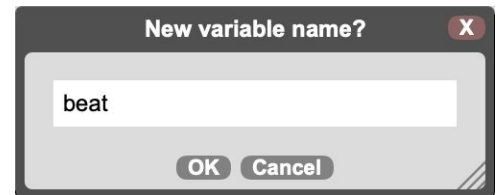play note E octave 1 during 400 ms
play note C octave 1 during 400 ms

Select open and choose the music folder to see more examples of songs!

File
New
Open
Save

http://microblocks.fun

micro:bit | Sounds, Part 2

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

New variable name?   X

beat

OK   Cancel

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 during beat ms
    play note D octave 1 during beat ms
    play note E octave 1 during beat ms
    play note C octave 1 during beat ms
repeat 2
    play note E octave 1 during beat ms
    play note F octave 1 during beat ms
    play note G octave 1 during 2 × 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 milliseconds
```

http://microblocks.fun