



CPX | Sounds, Part 1

Connect the Circuit Playground Express to MicroBlocks.



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

when started

repeat **2**

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

repeat **2**

play note **E** octave **1** during **400** ms

play note **F** octave **1** during **400** ms

play note **G** octave **1** during **800** ms



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

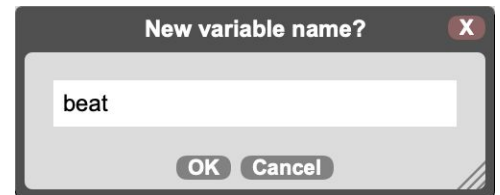


CPX | Sounds, Part 2

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To make longer tunes, you can use a variable for note durations so you can change the speed. Click on the variables category to create a new 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 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 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 milliseconds
```