



# 1 - Creating Sounds

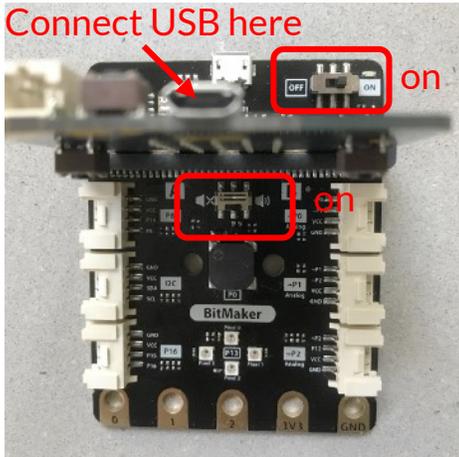
Added libraries:



Tone



Scrolling



Plug the micro:bit into the BitMaker, setting both switches to "on".

Experiment with "play note" blocks to hear different sounds.

```
play note C octave 0 for 500 ms
```

Add the variable "beat" before creating this script. Adjust "beat" to play the song faster or slower. Do you recognize the tune?

Challenge: Try making a "sound effect" like below. Also, use the File menu to open more examples in the Music folder.

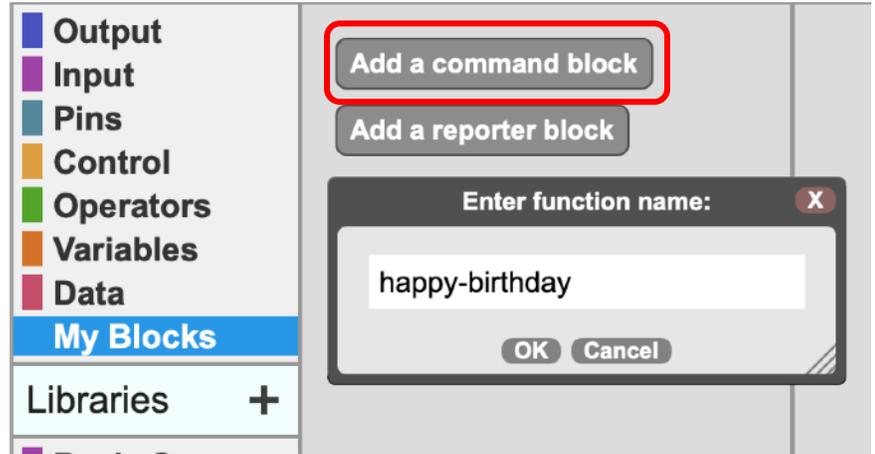
```
when button B pressed
  for i in 50
    play midi key i + 50 for 3 ms
```

```
when button A pressed
  set beat to 250
  repeat 3
    play note D octave 0 for beat ms
  play note G octave 0 for beat x 6 ms
  play note D octave 1 for beat x 6 ms
  repeat 2
    play note C octave 1 for beat ms
    play note B octave 0 for beat ms
    play note A octave 0 for beat ms
    play note G octave 1 for beat x 6 ms
    play note D octave 1 for beat x 3 ms
  play note C octave 1 for beat ms
  play note B octave 0 for beat ms
  play note C octave 1 for beat ms
  play note A octave 0 for beat x 6 ms
```

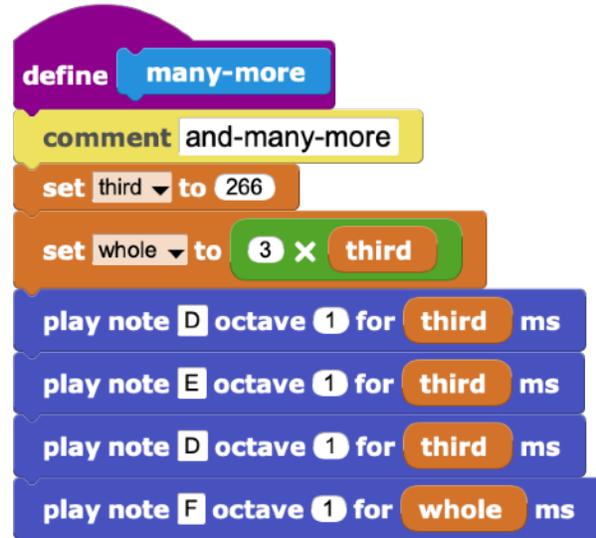
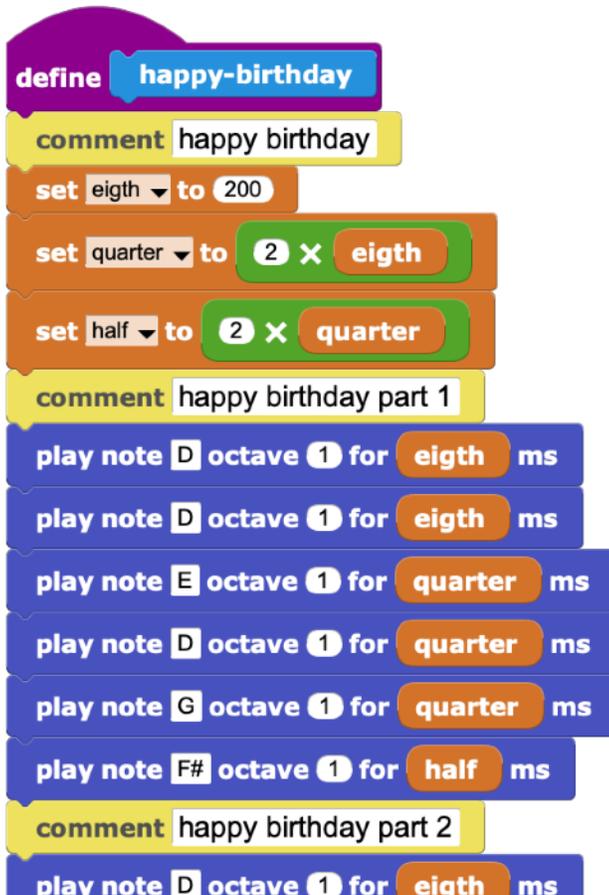


## 2 - Play and Display Happy Birthday

Make a “Happy Birthday” cake topper that uses command functions. From “My Blocks” click “Add a command block”, name it, and a purple “hat block” will appear.



Run your new command functions when button A is pressed.



These functions define variables for note duration (eighth, quarter, half...)

Challenge: Can you add the remaining notes of the Happy Birthday tune?