Extra Material: Sound Effects

How to Play Sound Effects on Your Raspberry Pi!

Getting Started: Playing Sound Effects in the Terminal

To begin, we'll start by making sure that audio is enabled on your Raspberry Pi. In the Raspberry Pi's Terminal (the icon is pictured below), you can begin by writing out the following code, hitting the ENTER key after each line:
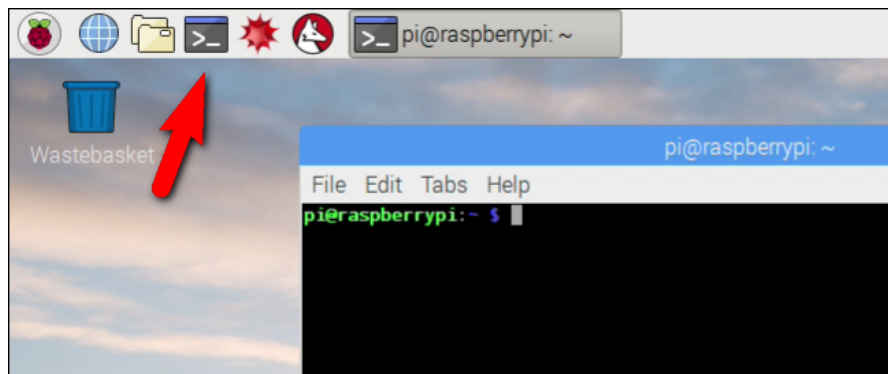
```
amixer set PCM unmute

amixer set PCM 100%
```

Once you're ready, call me over and we'll search for a sound effect file on your computer.

Once that's set up, you can play your sound effect by typing `aplay` followed by the name of your audio file into the Terminal (you may need earphones to hear this properly)! My audio file was named "`match0.wav`"

```
aplay match0.wav
```

Playing Sound Effects in Your Python 3 Program

Once we have the audio playing properly through the terminal, we can next look at how to include audio files in one of the programs that you write! Go ahead and type these first 5 lines into your Python 3 text editor. These lines will import, define, and prepare the audio file you want to put in your program, *so they should be placed at the very top of your code*! Again, the audio file that I am using is called "`match0.wav`", so yours will probably be different.

```python
import pygame

pygame.init()

pygame.mixer.pre_init(44100, 16, 2, 4096)

from pygame import mixer

sound = mixer.Sound('match0.wav')
```

Then, to have the program actually make the sound, all you have to do is write

```python
sound.play()
```

And when you run it, you'll hear the noise! You can use the `sound.play()` function as many times as you want, and wherever you want throughout your program. Here's an example I put together: in this program, the computer asks for your name, waits for you to type it in, then plays a sound effect for you! Try it now:

```python
print("Hi there! What's your name?")

name_of_player = input()

print(name_of_player + ", check out this cool sound!")

sound.play()
```