JukeBox

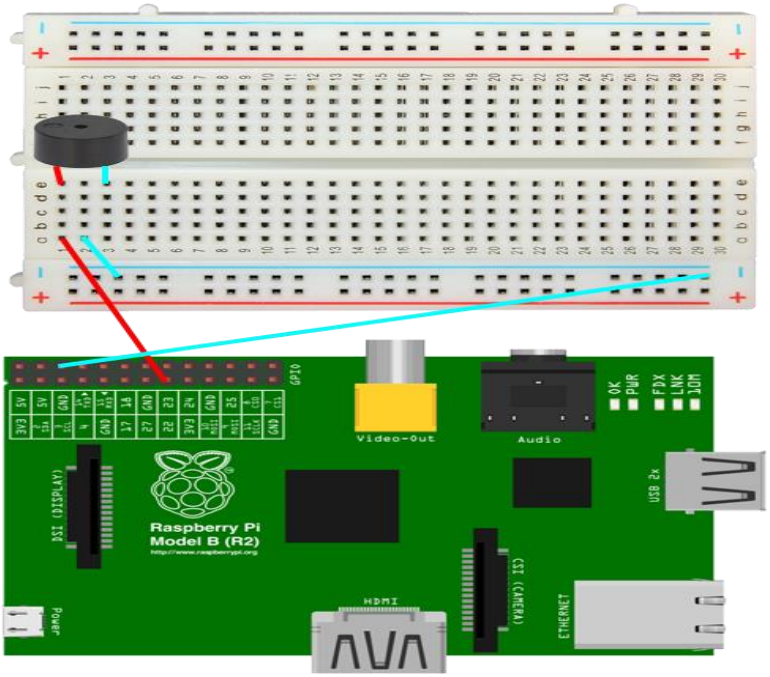
Introduction

This class is a simple extension of Speaker. It holds Array Lists full of Song objects, and then the notes contained in the Song. The assembly is exactly the same as Speaker.

Assembly

Parts:

- Piezo Buzzer
- Jumper Cables
- Raspberry Pi



Build Instructions:

1. Power off the Pi completely.
2. Attach cable from Positive end of Speaker (typically the longer pin), to your chosen GPIO pin.
   In this example we are using Pin 3 (Wiring Pi) which translates to Pin 22 on the Pi. If you chose a different pin you must remember to initialise the class with the alternate constructor and specify the pin.
3. Connect the other Speaker pin to GND on the Pi.

Exercises

Exercise 1: Add a few more songs to the Array List and check that they play correctly.

Exercise 2: Write an additional method that implements a play queue. It is recommended to pass an array of numbers as the parameter for the songs (and order) that you want to play.

Exercise 3: Add methods to add and delete songs from the Song List. For an even better solution, it would be cool to read in notes from an XML or JSON file.

Notes

- Remember, Pi4J using something called WiringPi to manage GPIO pins. This means that the pin numbers do not actually correlate with what is written on the board. Use this website to convert: http://pi4j.com/pins/model-b-plus.html