AlarmClock

Introduction

The Alarm Clock class is an extension of the Juke Box which is an extension of Speaker. This class allows you to set a time for the alarm to go off. When that happens the program will play a song from the JukeBox.
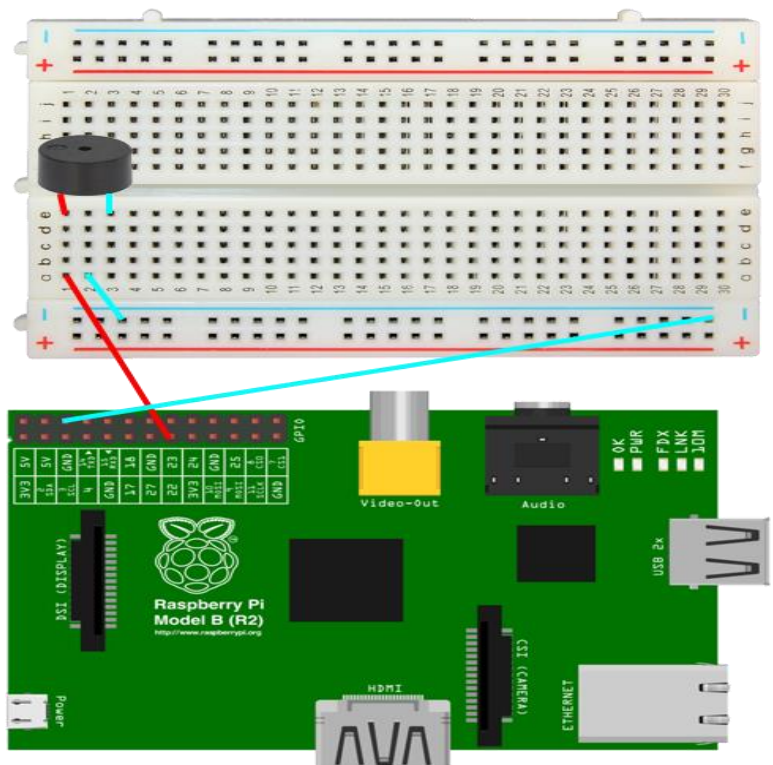
Assembly

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: Modify the class to play a random song when the alarm goes off.

Exercise 2: Notice the very reset() method. This turns the alarm off once it starts. Try and tie the Button class into the method, so that it can be used to silence the alarm.

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