Passive Buzzer

Overview

In this lesson, you will learn how to use a passive buzzer. The purpose of the experiment is to generate eight different sounds, each sound lasting 0.5 seconds: from Alto Do (523Hz), Re (587Hz), Mi (659Hz), Fa (698Hz), So (784Hz), La (880Hz), Si (988Hz) to Treble Do (1047Hz).

Component Required:

1x Aduino UNO R3

1x Passive buzzer

2 x F-M wires (Female to Male DuPont wires)

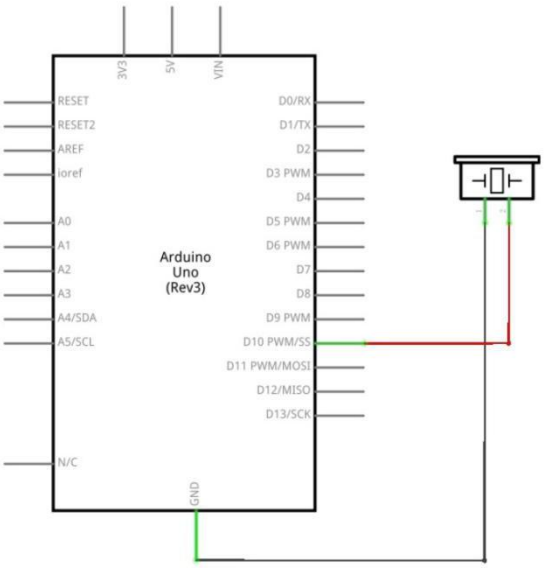
Component Introduction

Passive Buzzer: The working principle of passive buzzer is using PWM generating audio to make the air to vibrate. Appropriately changed as long as the vibration frequency, it can generate different sounds.For example, sending a pulse of 523Hz, it can generate Alto Do, pulse of 587Hz, it can generate midrange Re, pulse of 659Hz, it can produce

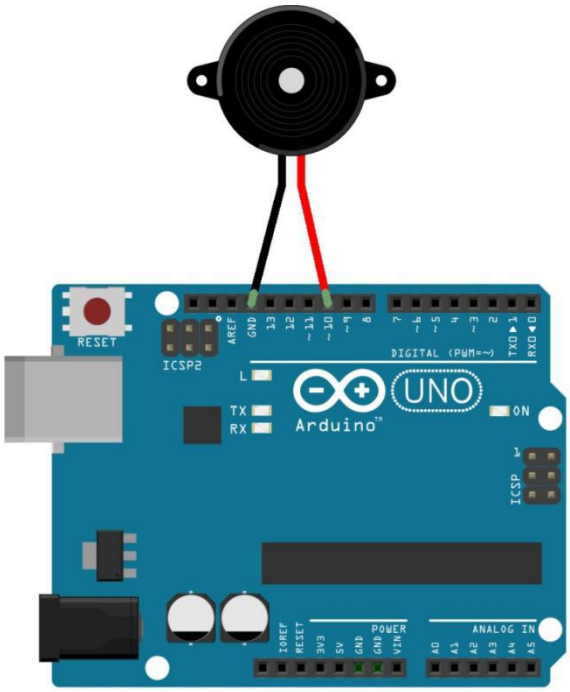
midrange Mi. By the buzzer, you can play a song. We should be careful not to use the UNO R3 board analog Write () function to generate a pulse to the buzzer, because the pulse output of analog Write () is fixed (500Hz).

Connection

Schematic



Wiring diagram



Wiring the buzzer connected to the UNO R3 board, the red (positive) to the

Pin10, black wire (negative) to the GND.

Code

After wiring, please open the program in the code folder- "Passive Buzzer" and click UPLOAD to upload the program. See "Blink" for details about program uploading if there are any errors.

Before you can run this, make sure that you have installed the library or re-install it, if necessary. Otherwise, your code won't work. For details about loading the library file, see "Arduino IDE useful manual.pdf"