

Active buzzer

★ Overview



This is an active buzzer experiment.
 In this experiment, we will learn how to use buzzer module.
 Active means that the direct power supply can make a sound.




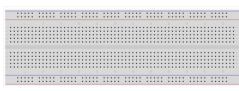

★ Specification

Voltage: DC 5V
 Min Sound Output at 10cm: 85dB;
 Total Size (Pin Not Included): 12 x 9mm/0.47" x 0.35"(D*H)

★ Pin definition

Active Buzzer	Arduino
Long pin	-> D5
Short pin	-> GND

★ Hardware required

Material diagram	Material name	Number
	Active buzzer	1
	USB Cable	1
	UNO R3	1
	Breadboard	1
	Jumper wires	Several

Component Introduction

★ Active Buzzer:

As a type of electronic buzzer with integrated structure, buzzers, which are supplied by DC power, are widely used in computers, printers, photocopiers, alarms, electronic toys, automotive electronic devices, telephones, timers and other electronic products for voice devices. Buzzers can be categorized as active and passive ones. Turn the pins of two buzzers face up, and the one with a green circuit board is a passive buzzer, while the other enclosed with a black tape is an active one.

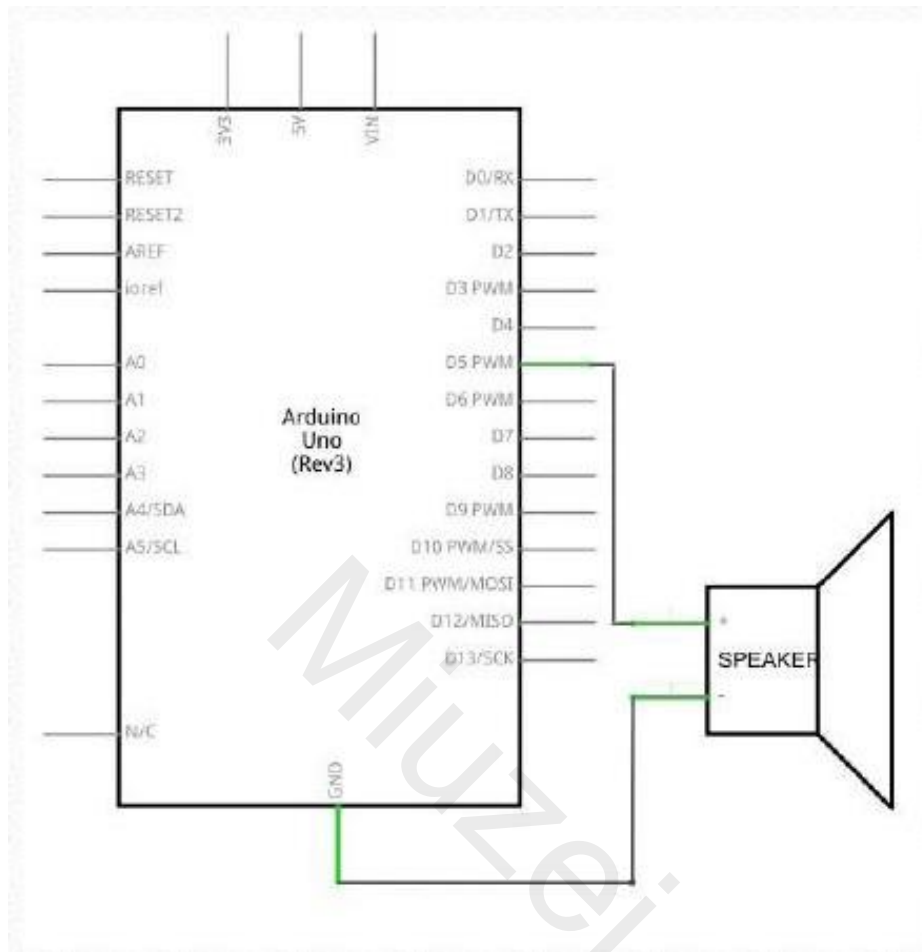
The difference between an active buzzer and a passive buzzer is:

An active buzzer has a built-in oscillating source, so it will make sounds when electrified. But a passive buzzer does not have such source, so it will not tweet if DC signals are used; instead, you need to use square waves whose frequency is between 2K and 5K to drive it. The active buzzer is often more expensive than the passive one because of multiple built-in oscillating circuits.

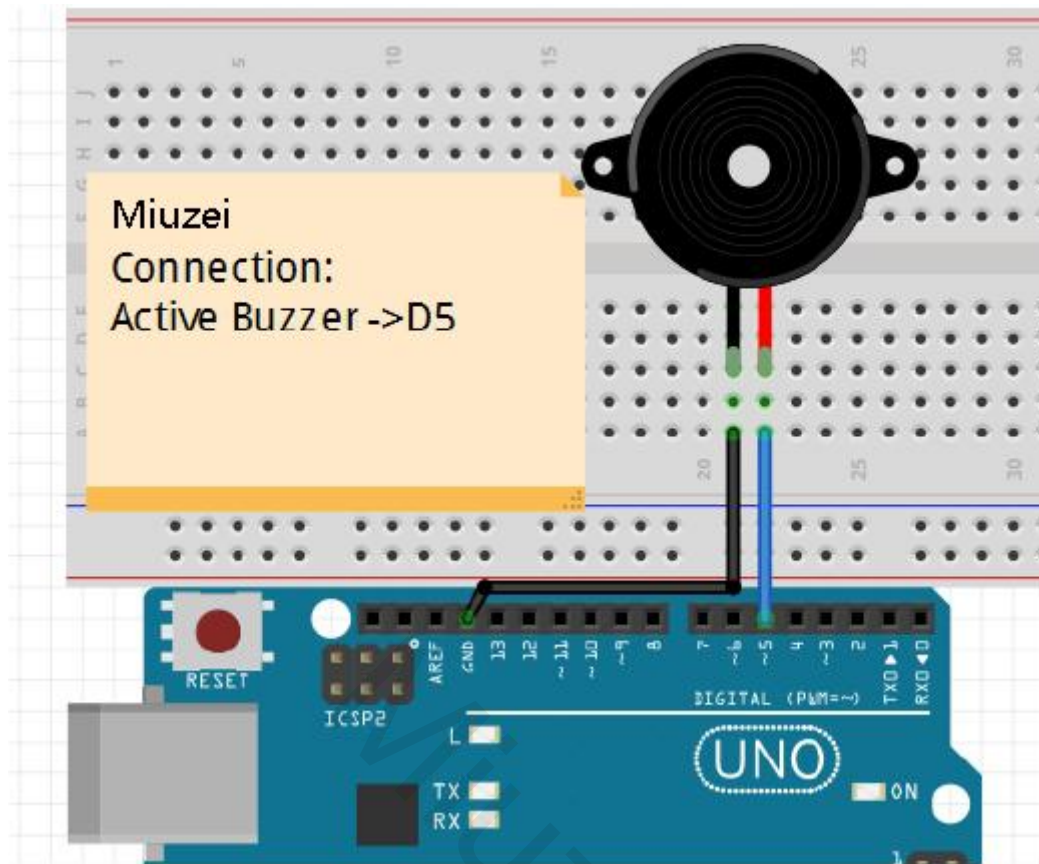
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Connection

★ Schematic



★ Connection diagram



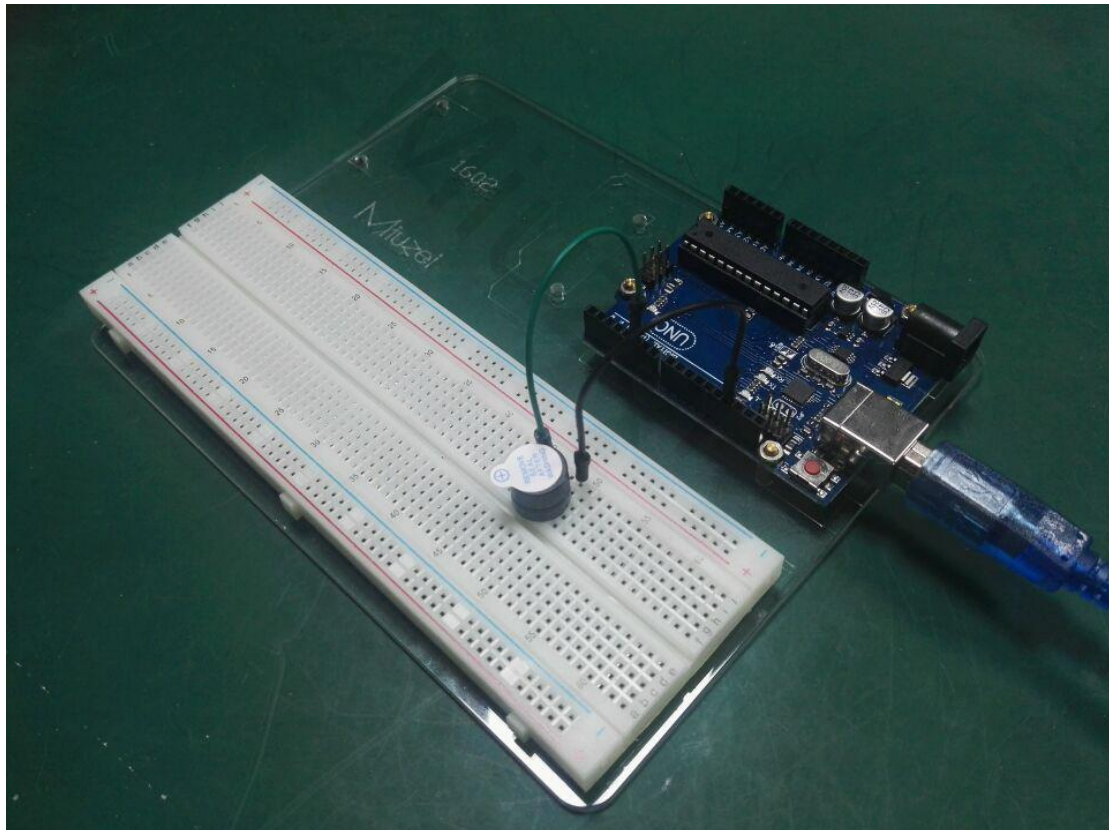
Note : The longest active buzzer of the pin is connected to the digital signal port 5 (D5).

★ Sample code

Note: sample code under the **Sample code** folder.

```
int buzzer=5;
void setup()
{
  pinMode(buzzer,OUTPUT);
}
void loop()
{
  digitalWrite(buzzer, HIGH); // produce sound
}
```

★ Example picture



★ Language reference

Tips : click on the following name to jump to the web page.
If you fail to open, use the Adobe reader to open this document.

[digitalWrite\(\)](#)

[pinMode\(\)](#)

★ Application effect

When the upload process is complete, the buzzer rings.

About Miuzei:

Miuzei found in 2011 , which is a professional manufacturer and exporter that concerned with open-source hardware research & product development, We have more than hundred engineers devote to developing open source hardware like Arduino, Raspberry pi ,3d printers , robots.

Miuzei committed to make more creative open source products and provide richer knowledge for enthusiasts worldwide. No matter what your ideas are, we provide various mechanical parts and electronic modules to turn your ideas into success.

So any of your suggestions will be a great motivation for us! We would like to receive your valuable suggestions for our products and we also offer customerized kits service.

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