

# **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
12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Active buzzer	1
	USB Cable	1
	UNO R3	1
	Breadboard	1
	Jumper wires	Several

1



### **Component Introduction**

#### **Active Buzzer:**

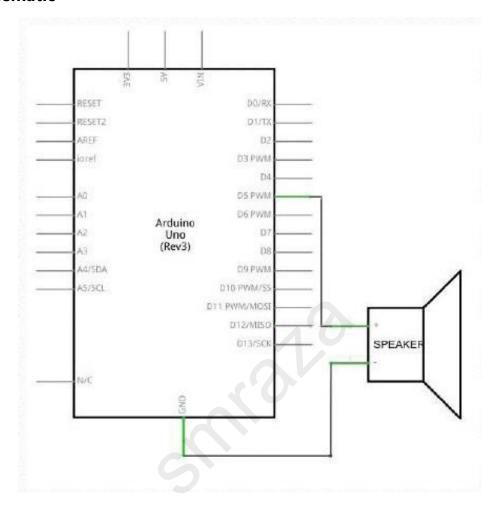
As a type of electronic buzzer with integrated structure, buzzers, which are supplied by DC power, are widely used in computers, printers, photocopiers, alarms, electronic toys, automotive electronic devices, telephones, timers and other electronic products for voice devices. Buzzers can be categorized 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.



## **Connection**

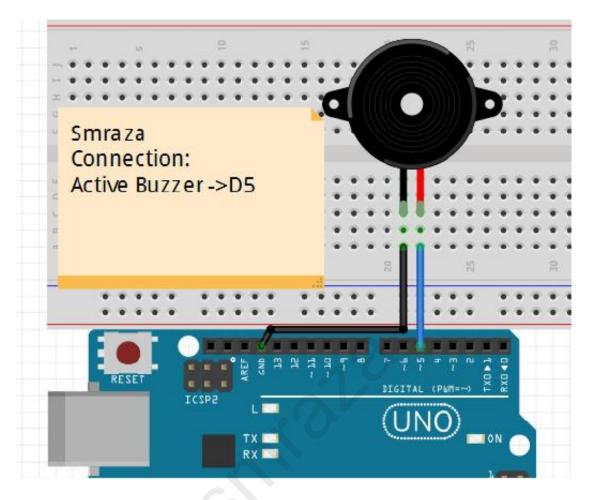
## **Schematic**



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# **Connection diagram**



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

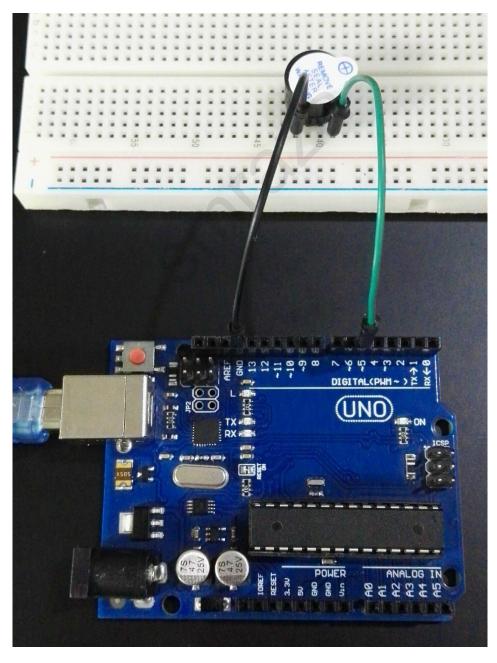
4



## 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. <a href="digitalWrite()">digitalWrite()</a>
<a href="pinMode()">pinMode()</a>

### **Application effect**

When the upload process is complete, the buzzer rings.

- \* About Smraza:
- \* We are a leading manufacturer of electronic components for Arduino and Raspberry Pi.
- \* Official website: <a href="http://www.smraza.com/">http://www.smraza.com/</a>
- \* We have a professional engineering team dedicated to providing tutorials and support to help you get started.
- \* If you have any technical questions, please feel free to contact our support staff via email at <a href="mailto:support@smraza.com">support@smraza.com</a>
- \* We truly hope you enjoy the product, for more great products please visit our

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