

# Interfacing Active Buzzer with Arduino



## Active Buzzer Features

A buzzer is a device used to produce sound. There are two types of buzzer: active and passive. In the active model, buzzer starts playing sound only if connected to a power supply, but in the passive model, we need to send a pulse from the microcontroller to play sounds.

The supply voltage of the buzzer is 3 volts, 5 volts and 12 volts.

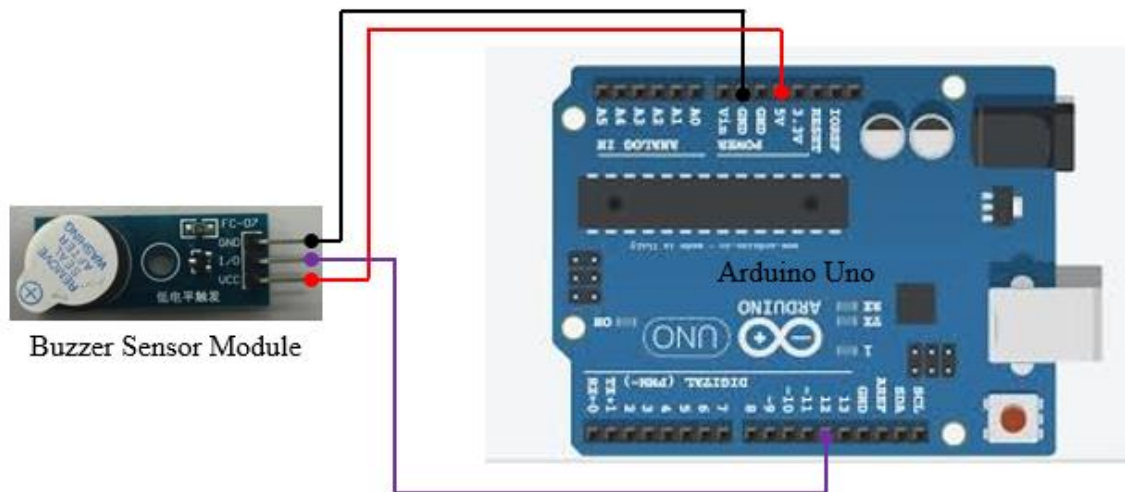


## Active Buzzer Module Pinout

This Module has 3 pins:

- **VCC:** Module power supply – 5 V
- **GND:** Ground
- **IN:** Digital information input from the microcontroller

You can see the **pinout** of this module in the image below.



- GND ----- Arduino GND
- I/O ----- Arduino Pin 12
- VCC ----- Arduino 5V

## SOURCE CODE

```
int buzzPin= 12; // I/O-pin from buzzer connects here
const int wpm = 20; // Morse speed in WPM
const int dotL = 1200/wpm; // Calculated dot-length
const int dashL = 3*dotL; // Dash = 3 x dot
const int sPause = dotL; // Symbol pause = 1 dot
const int lPause = dashL; // Letter pause = 3 dots
const int wPause = 7*dotL; // Word pause = 7 dots

void setup()
{
  pinMode(buzzPin,OUTPUT); // Set buzzer-pin as output
}
void loop()
{
  dash();
  dot();
  dash();
  dot();
  delay(lPause-sPause); // Subtracts pause already taken

  dash();
  dash();
  dot();
  dash();
  delay(wPause-sPause); // Subtracts pause already taken

}

void dot(){
  digitalWrite(buzzPin, LOW); // Tone ON
  delay(dotL); // Tone length
  digitalWrite(buzzPin, HIGH); // Tone OFF
  delay(sPause); // Symbol pause
  return;
}

void dash(){
  digitalWrite(buzzPin, LOW); // Tone ON
  delay(dashL); // Tone length
  digitalWrite(buzzPin, HIGH); // Tone OFF
  delay(sPause); // Symbol pause
  return;
}
```