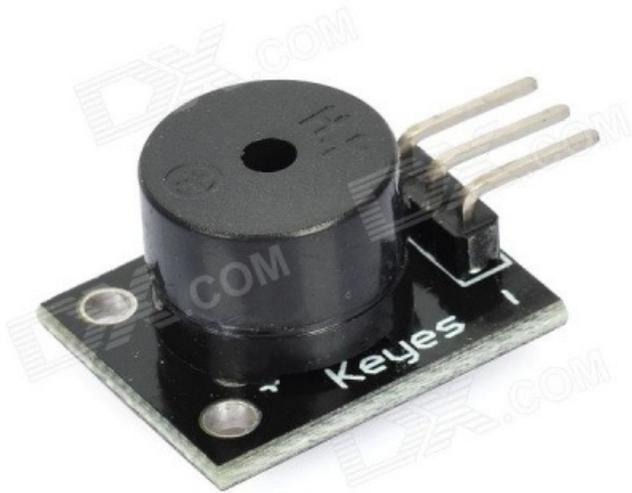


Arduino KY-006 Small passive buzzer module

From



<http://www.dx.com/p/arduino-diy-part-buzzer-module-black-138322>

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Passive buzzer

Arduino can be done with a lot of interactive work, the most common and most commonly used is the sound and light show in front has been LED lights are used in the experiments, we let the experiment circuit sound, a voice of the most common. Component is the buzzer and speaker, and comparison of the two buzzer easier and ease the present study, we buzzer.

Buzzer and the principle

the introduction of the buzzer

1. Buzzer Buzzer is an integrated role in the structure of electronic transducers, DC voltage power supply, wide used in computers, printers, copiers, alarms, electronic toys, automotive electronic equipment, telephones, timers, etc. Electronic products for sound devices.
2. The classification is divided into buzzer piezo buzzer buzzer and two types of electromagnetic buzzer.

3. Graphic symbols buzzer buzzer circuit in the circuit by the letter "H" or "HA" (old standard with "FM", "LB", "JD", etc.) indicates.

structural principle buzzer

1. Piezo Buzzer Piezo Buzzer mainly by the multivibrator, piezo buzzer, impedance matching and resonance Boxes, housing and other components. Some piezo buzzer case is also equipped with lightemitting diodes. ultivibrator constituted by the transistors or integrated circuits. When switched on (1.5 ~ 15V DC working voltage), multiHarmonic oscillator start-up, the output 1.5 ~ 2.5kHz audio signals, impedance matching push piezo buzzer sound. Piezo buzzer by a lead zirconate titanate or lead magnesium niobate piezoelectric ceramic material. Both sides of the ceramic piece plated silver electrode The polarization and the aging process, and then with brass or stainless steel sheet stick together.
2. Magnetic Buzzer Magnetic Buzzer by the oscillator, the electromagnetic coil, magnet, diaphragm and housing and other components. After power on, the audio signal generated by the oscillator current hrough the electromagnetic coil, the electromagnetic coil generates a magnetic field. Shake Moving the iaphragm in the electromagnetic coil and magnet interaction, periodically sound vibration.

Active and passive buzzer buzzer What is the difference

Here the "source" does not mean power. But rather refers to the shock source. In other words, the active internal buzzer with shock source, so only Will be called to an energized. The passive internal sources without shocks, so if a DC signal can not make it tweet. Must 2K ~ 5K square ave to Drive it. Buzzer often than passive expensive, because there multiple oscillator circuit. Passive buzzer advantages are:

1. Cheap,
2. Sound frequency control, you can make a "more than a meter hair Suola Xi 'efficiency Fruit.
3. In some special cases, you can reuse a control and LED port active buzzer

advantages are: process control, Convenient.

Connecting

Arduino digital pin 8 --> pin 'S' of module Arduino GND --> Pin '-' of module

Example code

```
//Example Code for KY-006

int buzzer = 8 ;// setting controls the digital IO foot buzzer
void setup ()
{
  pinMode (buzzer, OUTPUT) ;// set the digital IO pin mode, OUTPUT out of Wen
}
void loop ()
{
  unsigned char i, j ;// define variables
  while (1)
  {
    for (i = 0; i <80; i++) // Wen a frequency sound
    {
      digitalWrite (buzzer, HIGH) ;// send voice
      delay (1) ;// Delay 1ms
      digitalWrite (buzzer, LOW) ;// do not send voice
      delay (1) ;// delay ms
    }
    for (i = 0; i <100; i++) // Wen Qie out another frequency sound
    {
      digitalWrite (buzzer, HIGH) ;// send voice
      delay (2) ;// delay 2ms
      digitalWrite (buzzer, LOW) ;// do not send voice
      delay (2) ;// delay 2ms
    }
  }
}
```

After downloading the program, the buzzer experiments are done.

- This page was last modified on 17 August 2014, at 20:55.