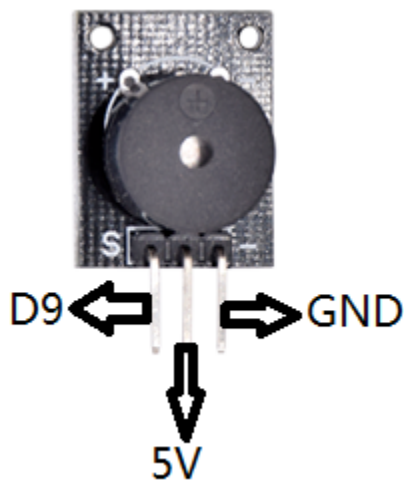# Passive buzzer

Introduction:

We can use Arduino to make many interactive works of which the most commonly used is acoustic-optic display. All the previous experiment has something to do with LED. However, the circuit in this experiment can produce sound. Normally, the experiment is done with a buzzer or a speaker while buzzer is simpler and easier to use. The buzzer we introduced here is a passive buzzer. It cannot be actuated by itself, but by external pulse frequencies. Different frequencies produce different sounds. We can use Arduino to code the melody of a song, which is actually quite fun and simple.

Wiring schematic:

Advantage of passive buzzer:

- Inexpensive
- Different sound by different frequency, it can produce sound dol re mi fa sol la si.
- In some cases, it can be controlled by multiplex LED port.
- Easy programming.

Code:

```
/*This is our website www.weikedz.com
For bulk orders, please feel free to contact
sophie@weikedz.com. If any question, for orders,
for technical problems, pls contact us.
We will response you fastest time. */
int buzzer=9;// select digital IO pin for the buzzer
void setup()
{
pinMode(buzzer,OUTPUT);// set digital IO pin pattern, OUTPUT to be output
}
void loop()
{ unsigned char i,j;//define variable
while(1)
```

```
{ for(i=0;i<80;i++)// output a frequency sound
{ digitalWrite(buzzer,HIGH);// sound
delay(1);//delay1ms
digitalWrite(buzzer,LOW);//not sound
delay(1);//ms delay
}
for(i=0;i<100;i++)// output a frequency sound
{
digitalWrite(buzzer,HIGH);// sound
digitalWrite(buzzer,LOW);//not sound
delay(2);//2ms delay
}
}
}
```

After downloading the program, buzzer experiment is finished.