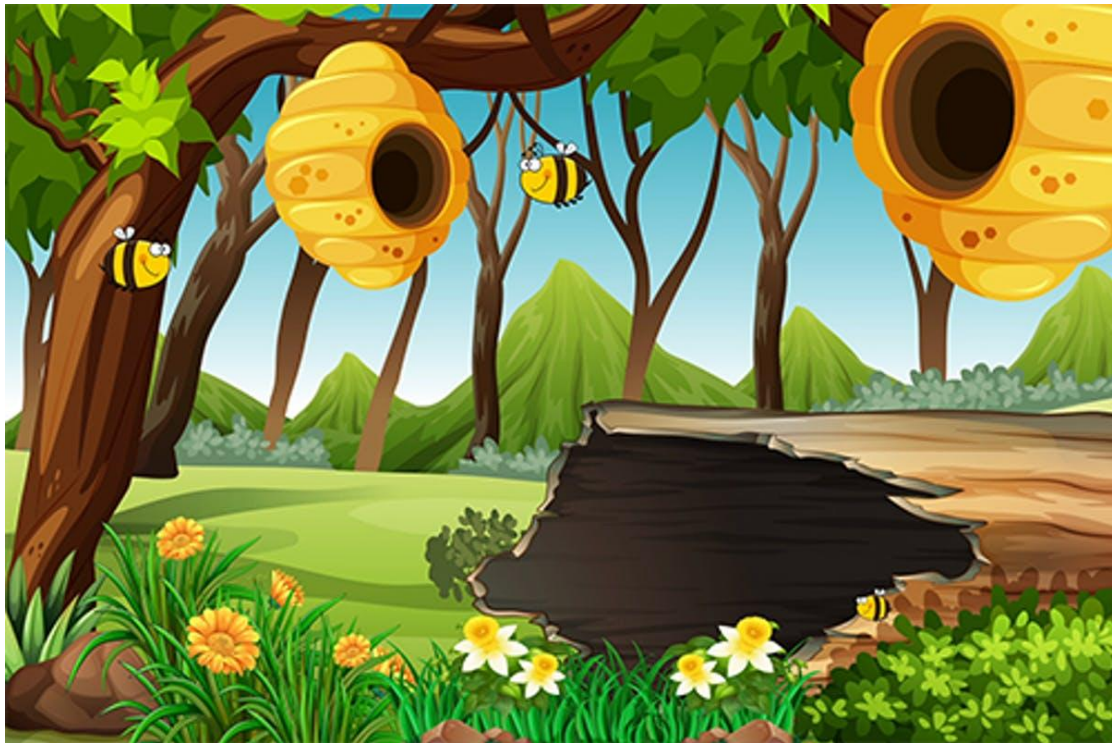


Project 7: Little Bee

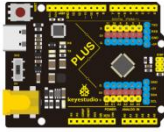


1. Project Introduction

Active buzzer, a sound-making element, is widely used in computers, printers, alarms, electronic toys, telephones as well as timers. It has an inner vibration source. Simply connect it with 5V power supply, it can buzz continuously.

In this project, we will use an active buzzer and a cartoon bee card to make a cute bee that can tweet.

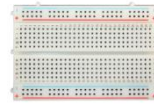
2.Project Hardware



Plus
Development
Board*1



Plus Board
Holder



400-Hole
Breadboard



USB Cable*1



Active
buzzer*1



Jumper Wire*2



Cartoon Small
Bee Card*1

3. Little Knowledge



The active buzzer inside has a simple oscillator circuit which can convert constant direct current into a certain frequency pulse signal. Once active buzzer receives a high level, it will produce an audible beep.

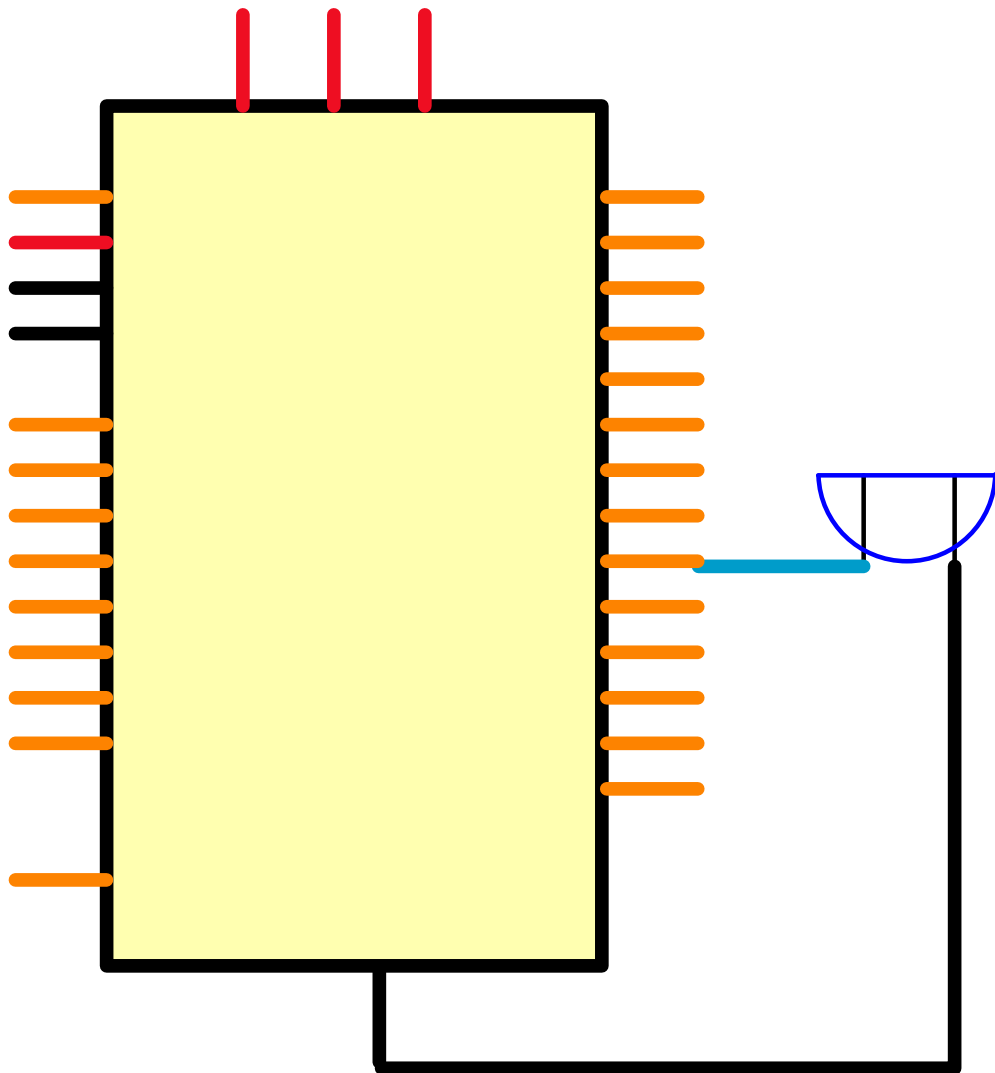
Passive buzzer is an integrated electronic buzzer without vibration source inside. It must be driven by 2K-5K square wave instead of direct current signals.

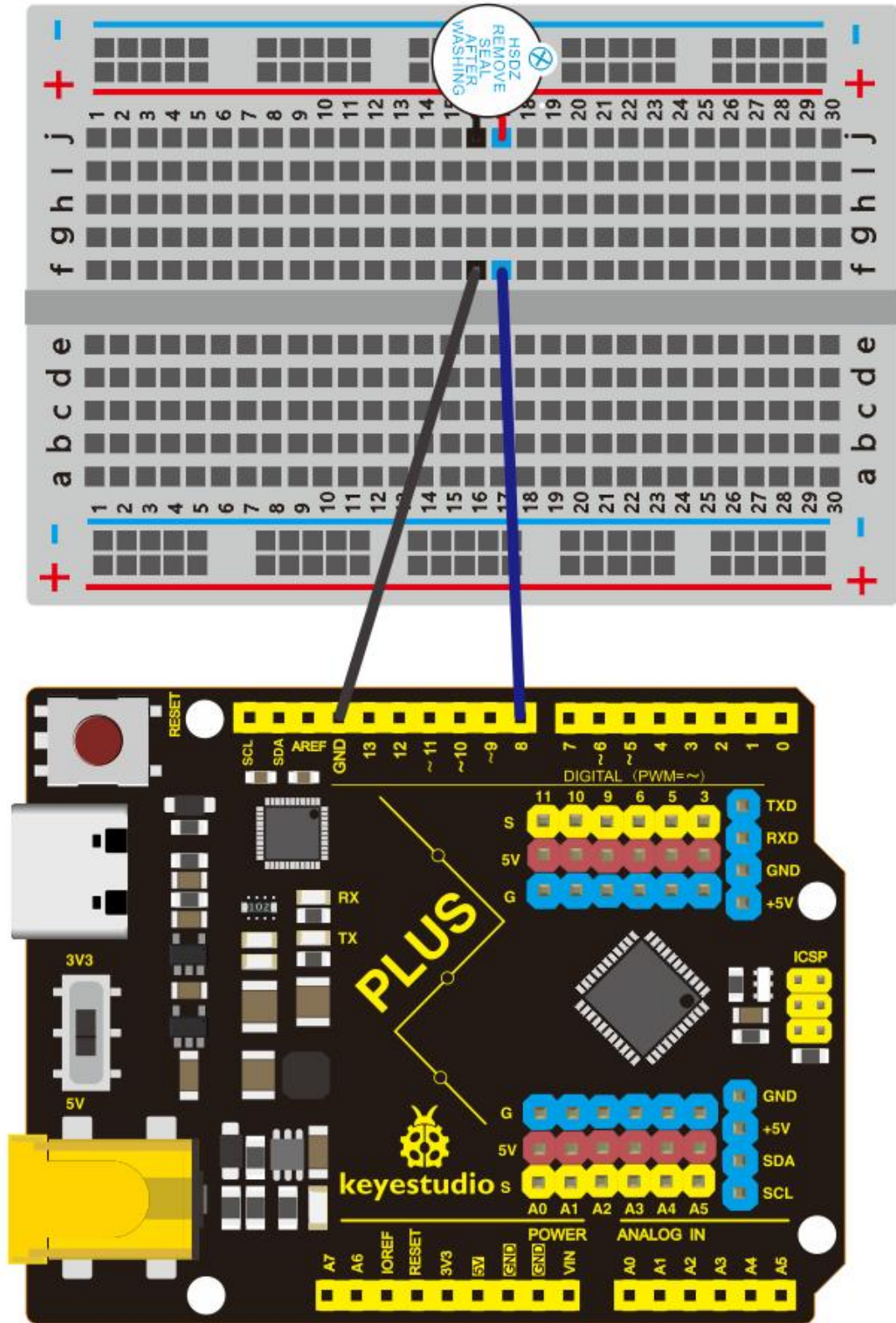
The appearance of the two buzzers is very similar, but the one with a green circuit board is a passive buzzer, while the other enclosed with a black tape is an active one. Passive buzzers don't differentiate positive while active polarity active buzzers do.

As shown below:



4.Circuit Connection





NOTE: Note: The positive pole of the active buzzer is connected to pin 8 ("+"/long pin), and the negative pole is connected to GND

5.Project Code

```
/*  
keyestudio STEM Starter Kit  
Project 7  
Little bee  
http://www.keyestudio.com  
*/  
  
int buzzerPin = 8;  
  
void setup ()  
{  
    pinMode (buzzerPin, OUTPUT);  
}  
  
void loop ()  
{  
    digitalWrite (buzzerPin, HIGH);  
    delay (500);  
    digitalWrite (buzzerPin, LOW);  
    delay (500);  
}
```


}

//

- 1.Open up the Arduino IDE and copy the above code into a new sketch.
- 2.Select the correct Board type and COM port for the Arduino IDE.
- 3.Click Upload button to upload the code.

6.Project Result

Done uploading ! Put the cartoon paper of the little bee on it, You will get a little bee that can tweet.

