7-color automatic flashing LED module

Overview

This course uses the Raspberry Pi to light the 7-color auto-flash LED.

Experimental Materials

RaspberryPi \*1

Breadboard \*1

7color led \*1

Dupont Line

Ready to work

1. Install python interpreter in your Raspberry Pi system

2. Install the RPi.GPIO library in your Raspberry Pi system

3. Install the wiringPi library in your Raspberry Pi system

Refer to the attached "Installing a Python Interpreter and Corresponding Libraries in a Raspberry Pi System" for details.

product description

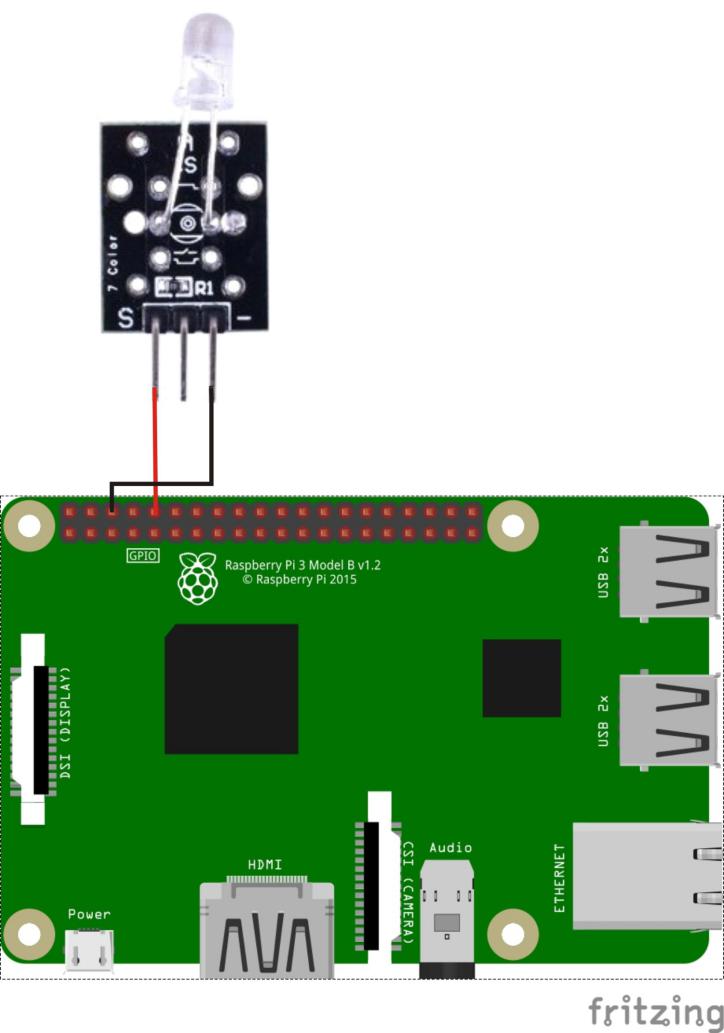
The automatic flashing and gradual change LED integrates a control integrated circuit and light-emitting chips such as red, green, and blue. The frequency of color changing firstly flashes slowly, then flashes quickly, and repeat. It has a very good decorative effect and can meet the needs of different users on different occasions. It is easy to be used like an ordinary LED, it can directly replace the ordinary LED on the original device, and has a decorative effect of dynamic color change. It can be widely used in automotive accessories, telephones, instrument lights, fiber optic accessories, exhibition lighting, advertising lights decorative supplies. In this experiment, we used the Raspberry Pi to control the the seven-color auto-flash LED module.



characteristic parameters

◆ Forward voltage: 3.0~4.5V

Wiring diagram



Sample code

1. python code

#!/usr/bin/env python

import RPi.GPIO as GPIO

import time

pin\_R = 10

def setup():

GPIO.setmode(GPIO.BOARD) # Numbers GPIOs by physical location

GPIO.setup(pin\_R, GPIO.OUT)

try:

setup()

while True:

GPIO.output(pin\_R, GPIO.HIGH)

except KeyboardInterrupt:

GPIO.cleanup()

1. C code

#include <wiringPi.h>

#include <softPwm.h>

#include <stdio.h>

typedef unsigned char uchar;

#define LedPin 16

int main(void)

{

int i;

if(wiringPiSetup() == -1)

{

printf("setup wiringPi failed !");

return -1;

}

pinMode(LedPin, OUTPUT);

while(1)

{

digitalWrite(LedPin, HIGH);

}

return 0;

}

Experimental phenomena

The frequency of color changing firstly flashes slowly, then flashes quickly, and repeat.