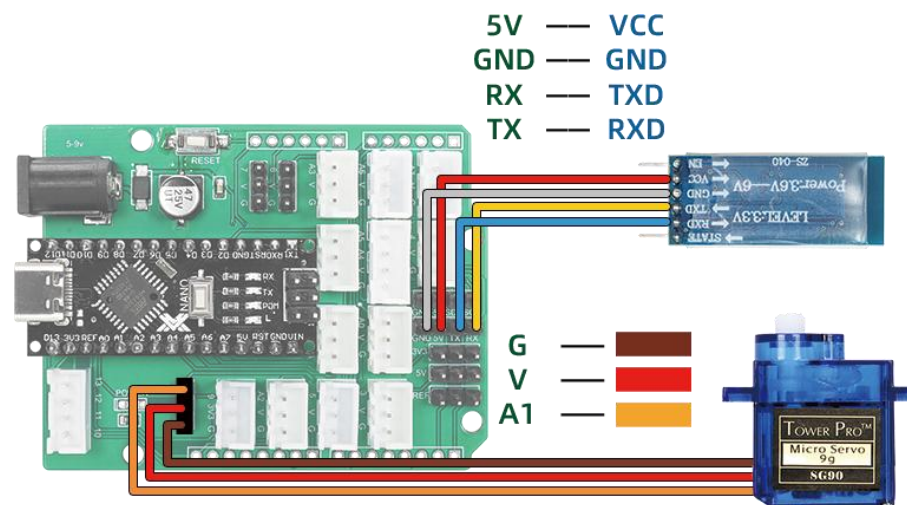


Project 29-Bluetooth Control Door Servo

1. project description

Through this project, you can learn how to use ZY -type-c Nano combined with Bluetooth APP to control the door switch . The function of this program is to control the opening and closing of the door by sending specific commands via a Bluetooth device connection .




2. Project wiring diagram



3. Download Arduino code

Please confirm that the servo.zip library has been installed. If not, please return to "Project 19" to see how to install the library.

Open the project Arduino code file (path: Project 29 Bluetooth Control Servo\project29\project29.ino)

 project29	2023/10/18 18:26	文件夹	
 Bluetooth control Door servo.mp	2023/10/17 11:29	MP 文件	167 KB
 项目 29 蓝牙控制舵机.docx	2023/10/18 18:54	DOCX 文档	1,234 KB

Connect the main control board to the computer using USB, select the board type as Nano, select the newly displayed COM number, click "Download" to start compiling and downloading the program to the main control board.

(At the same time, you should unplug the Bluetooth before downloading, and then plug the Bluetooth back in after the download is successful.)

Code analysis:

```

1  #include <Servo.h>
2  bool doorStatus = false;      //门状态初始设置    Initial setting of the gate state
3  Servo doorServo;              //用于门锁机构的伺服    Used for servo of door lock mechanism
4
5  void setup() {
6      Serial.begin(9600);        //设置波特率 Set the baud rate
7      doorServo.attach(A1);      //设置舵机引脚A1    Set servo pin A1
8      doorServo.write(0);        //将舵机移动到锁定位置 Move servo into locked position
9  }
```

```
11 void loop() {  
12     if(Serial.available() > 0)  
13     {  
14         char ser_val = Serial.read(); //读取蓝牙数据 Read Bluetooth data  
15         if(ser_val == 'H'){           //如果接收到的数据是H If the received data is H  
16             doorStatus = !doorStatus; //状态反转 Inversion of status  
17             if(doorStatus){           //如果door状态为"真" If the door status is "true"  
18                 for(int i = 10 ; i < 90 ; i++ ){//循环执行90次增加度数来开门 The loop is performed 90  
19                     delay(10);  
20                     doorServo.write(i);  
21                 }  
22             }else{                     //如果door状态为"假" If the door status is "false"  
23                 for(int i = 90 ; i > 10 ; i--){ //循环执行90次减少度数来关门 The loop is performed 90  
24                     delay(10);  
25                     doorServo.write(i);  
26                 }  
27             }  
28         }  
29     }  
30 }
```

4. Download Mind+ graphical code

Open the project Mind+code file (path: Project 29 Bluetooth control servo\Bluetooth control Door servo.mp)

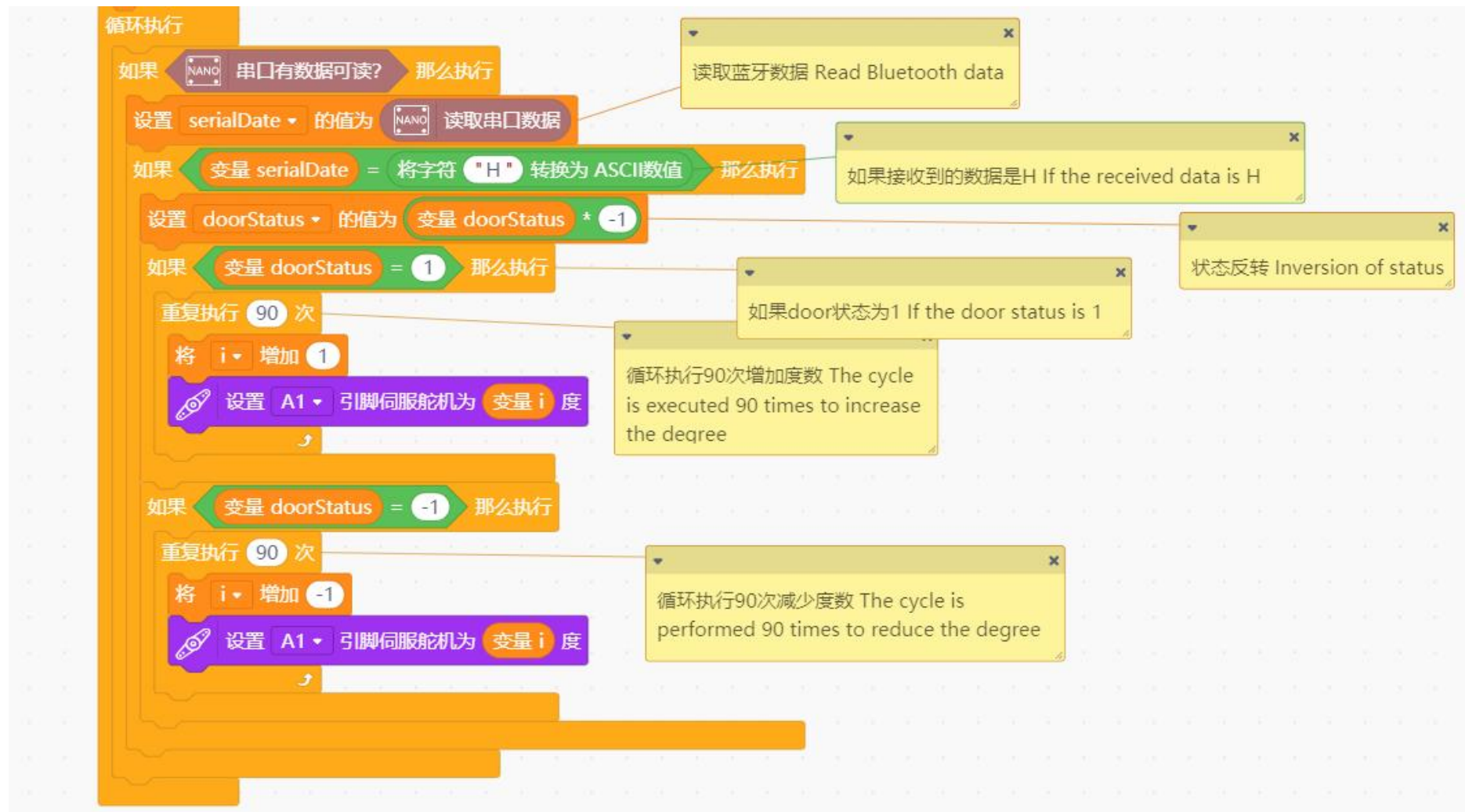
project29	2023/10/18 18:26	文件夹	
Bluetooth control Door servo.mp	2023/10/17 11:29	MP 文件	167 KB
项目 29 蓝牙控制舵机.docx	2023/10/18 18:54	DOCX 文档	1,234 KB

Connect the main control board to the computer with a USB cable and select the newly appeared CH340 serial port COM number. Click "Upload to Device" to complete the code upload.

(At the same time, you should unplug the Bluetooth before downloading, and then plug the Bluetooth back in after the download is successful.)

Complete code:





5. Operation on APP

5.1 Please confirm that TSCIBUNY.apk APP has been installed. If not, please go back to item 23 to see how to install the APP. Android users send "TSCINBUNY.apk" to their mobile phones and install it. There may be a newer version of the software when you see this tutorial. When prompted to upgrade, please allow the upgrade and keep your phone connected to the network.

ZYA0209-CN\项目 23 蓝牙控制LED

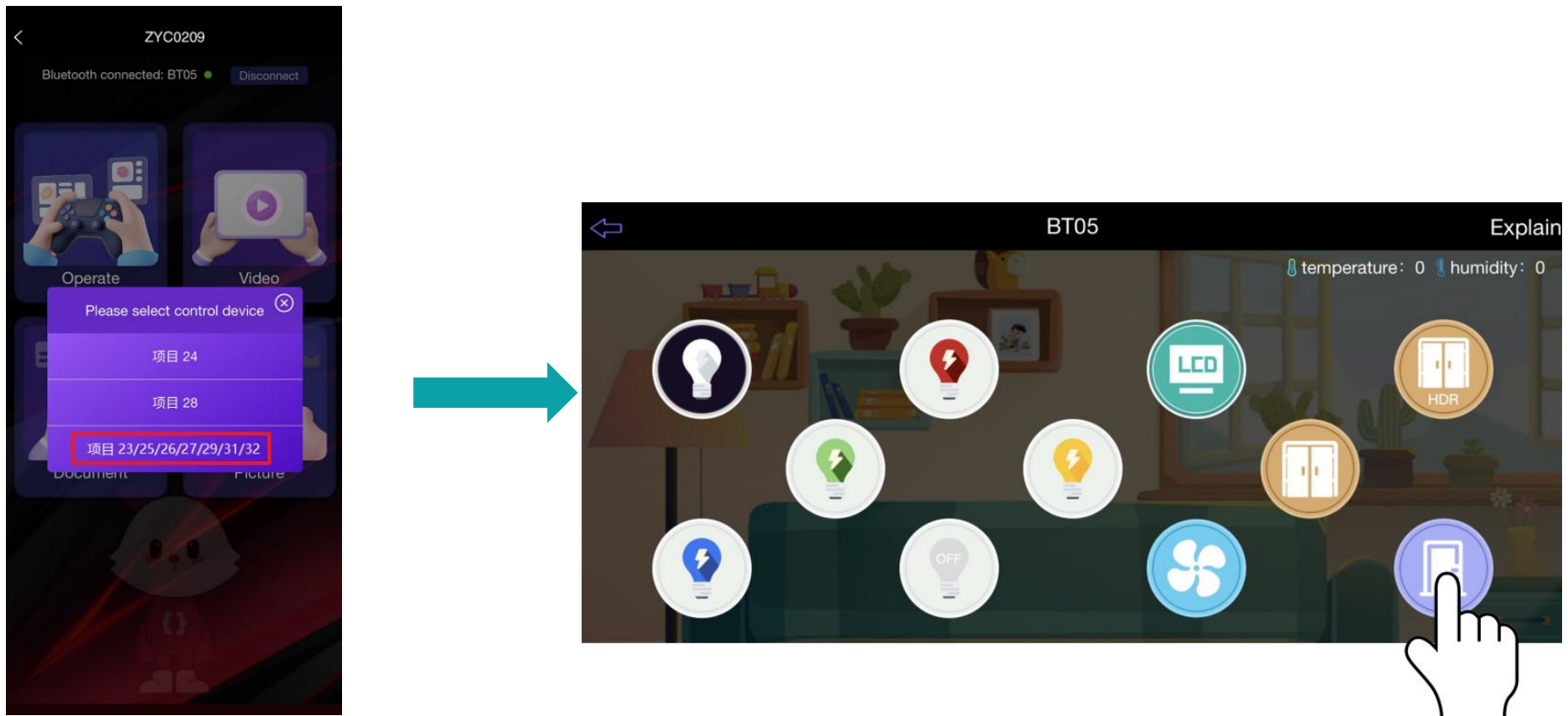
名称	修改日期	类型	大小
project23	2023/10/16 16:43	文件夹	
Bluetooth control LED.mp	2023/10/10 9:21	MP 文件	167 KB
TSCINBUNY.apk	2023/6/28 10:11	APK 文件	34,258 KB
项目 23 蓝牙控制LED.docx	2023/10/17 9:56	DOCX 文档	756 KB

For ios device users, please open the App Store, search and install TSCIBUNY



5.2 TSCINBUNY remote control APP enters the project interface

After successfully connecting to Bluetooth, enter the project. This project is 29, so please select the third column. ([How to search and connect Bluetooth? Please see item 23](#))



Project effect: Click the door control button, the door servo opens, click again, the door servo is locked.