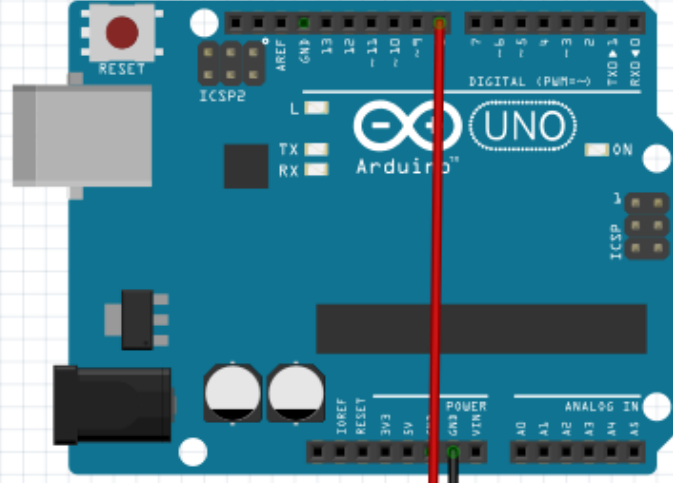
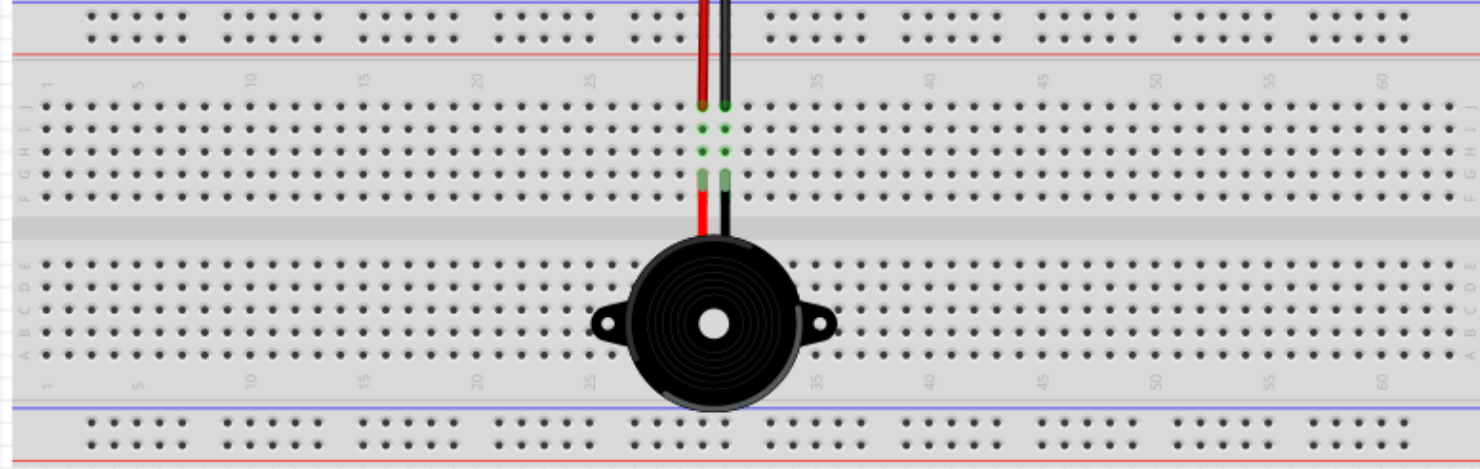
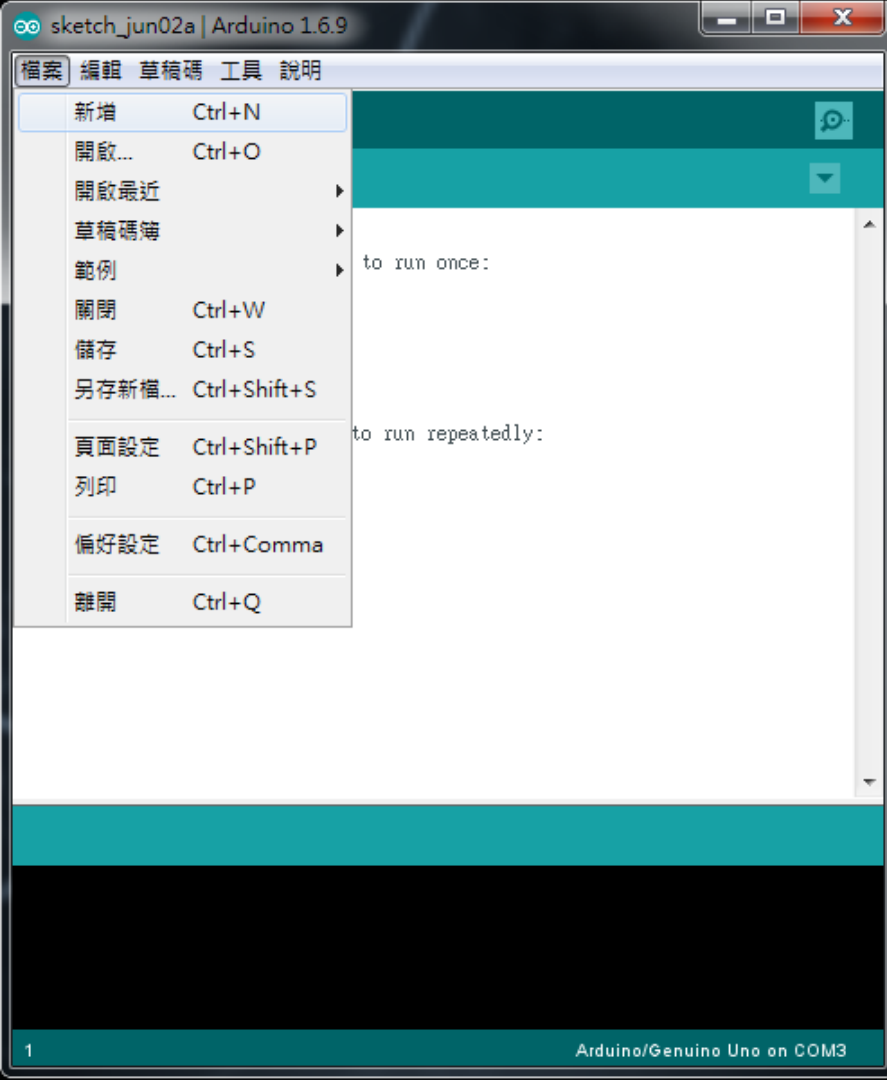


# 蜂鳴器簡易應用





檔案->另存新檔

或是 Ctrl + Shfit + S



#define buzzer 8 // 定義buzzer的值會是8

pinMode(buzzer,OUTPUT); //第八隻腳輸出

```
for(int i =0;i<10;i++){
  tone(buzzer,1000);
  delay(50);
  tone(buzzer,500);
  delay(50);
}
```

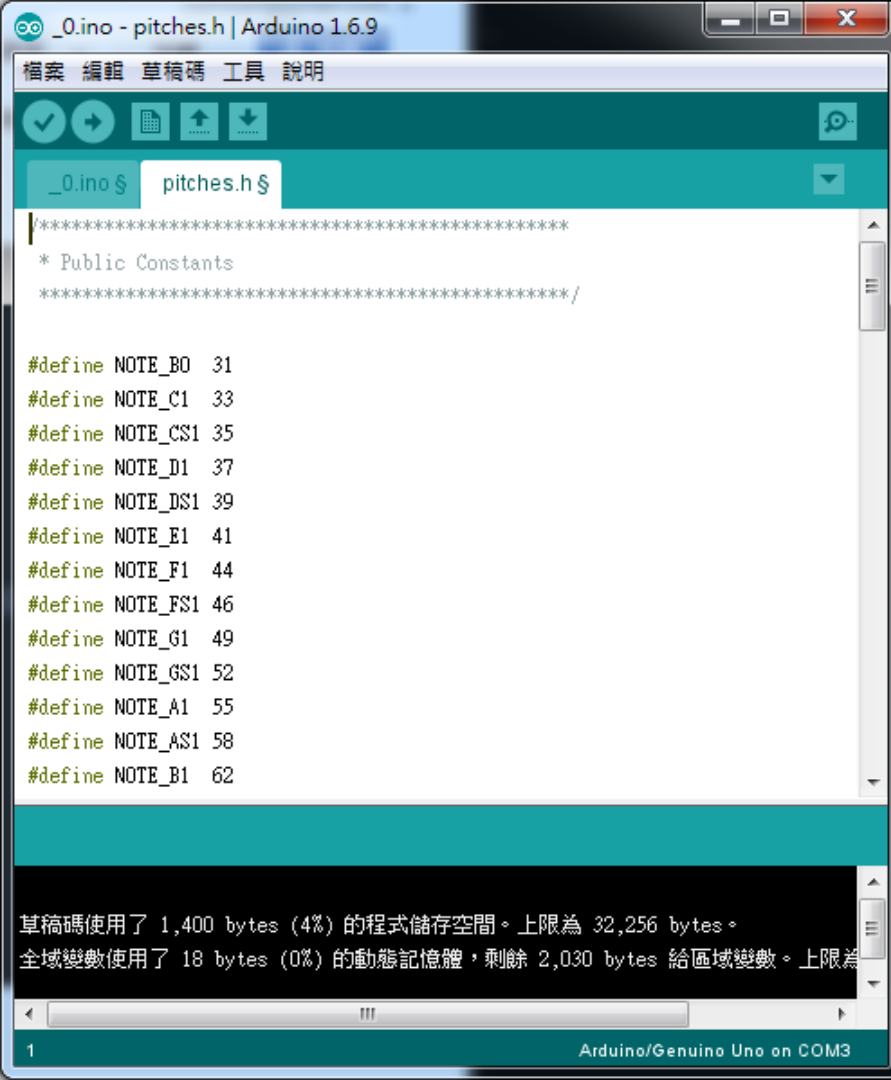
noTone(buzzer);

delay(1000);



按 Ctrl + Shift + N 來新增頁面

檔案名稱 pitches.h



把pitches.txt檔案內容複製進來



#include “pitches.h”



在最外圍加入

const int toneTable[7][6] 音階表

char toneName[]="CDEFGAB";





```
int getTone(char symbol) {
    for ( int i=0; i<7; i++ ) {
        if ( toneName[i]==symbol ) {
            return i;
        }
    }
    return -1;
}
```



```
char beeTone[] =  
"GEEFDDCDEFGGGGEEFDDCEGGEDDDDDDEFEEEEEFGG  
EEFDDCEGGC";
```

```
int beeBeat[] = {  
  1,1,2,1,1,2,1,1,1,1,1,1,2,1,1,2,  
  1,1,2,1,1,1,1,4,1,1,1,1,1,1,2,1,  
  1,1,1,1,1,2,1,1,2,1,1,2,1,1,1,1,4  
};
```



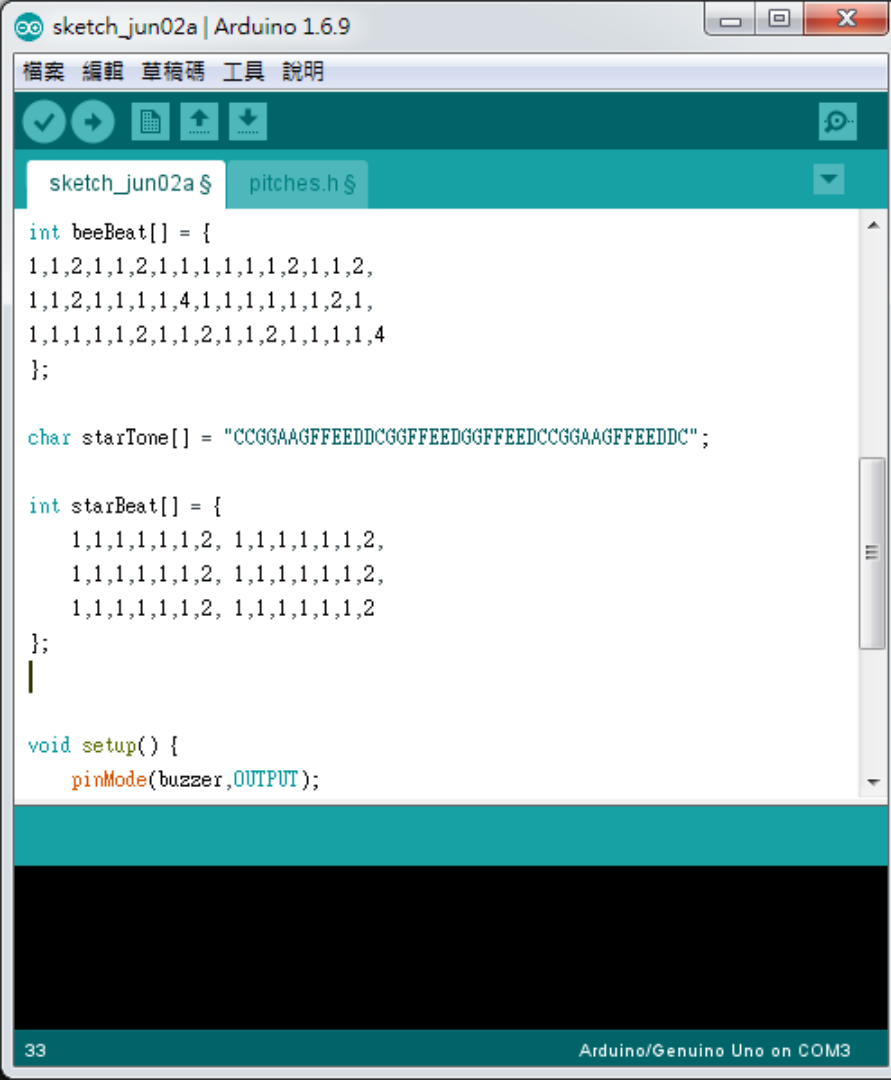
將loop改成

//小蜜蜂版本

```
int length, toneNo, duration;  
length = sizeof(beeTone) - 1;
```

```
for (int i=0; i<length; i++) {  
    toneNo = getTone(beeTone[i]);  
    duration = beeBeat[i]*333;  
    tone(buzzer, toneTable[toneNo][3]);  
    delay(duration);  
    noTone(buzzer);  
}
```

```
delay(500);
```



```
char starTone[] =
"CCGGAAGFFEEDDCGGFFEEDGGFFEEDCCGGAAGFFEE
DDC";
```

```
int starBeat[] = {
1,1,1,1,1,1,2, 1,1,1,1,1,1,2,
1,1,1,1,1,1,2, 1,1,1,1,1,1,2,
1,1,1,1,1,1,2, 1,1,1,1,1,1,2
};
```



或是

//star

```
int length, toneNo, duration;  
length = sizeof(starTone)-1;
```

```
for (int i=0; i<length; i++) {  
    toneNo = getTone(starTone[i]);  
    duration = starBeat[i]*333;  
    tone(buzzer, toneTable[toneNo][3]);  
    delay(duration);  
    noTone(buzzer);  
}
```

```
delay(500);
```

# 鍵盤輸入部分

儲存(Ctrl + S)後關閉專案

到 文件/arduino/NCC/ 可以找到剛剛做的

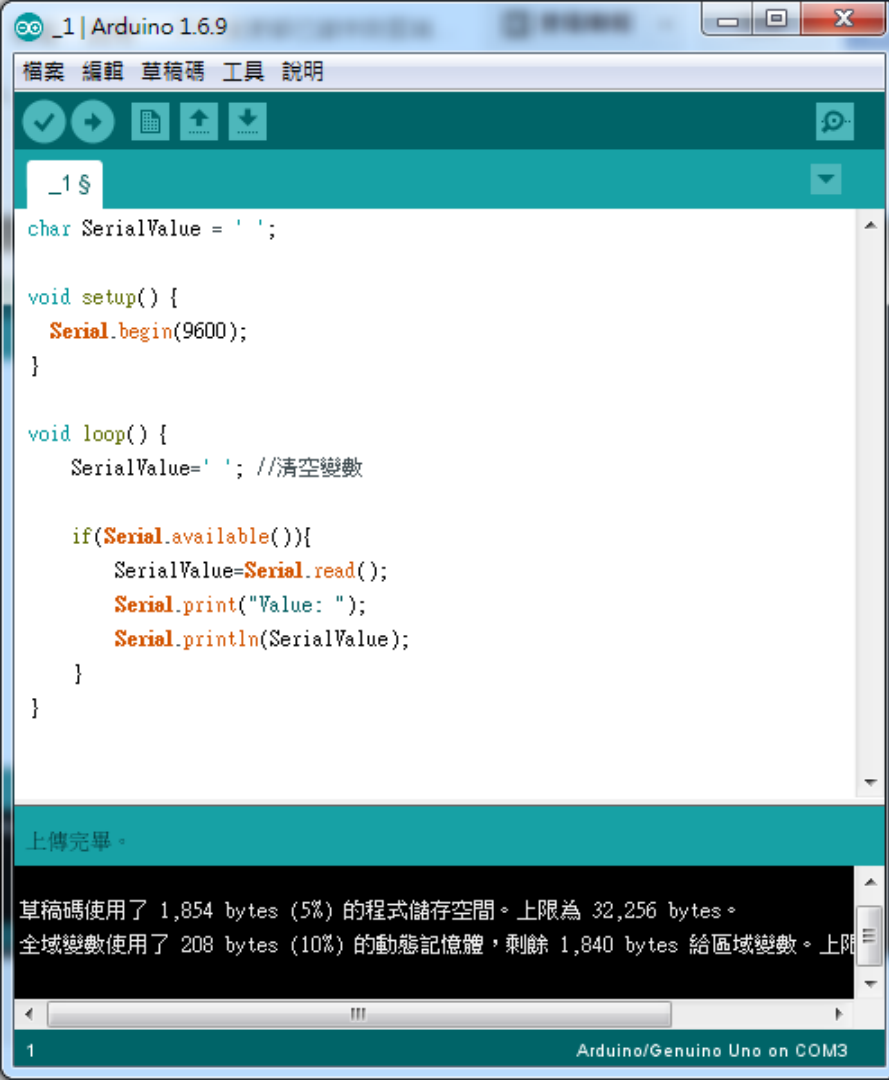
再開一份新的專案



在外圍加入一個 char 型別的變數

SerialValue = ' ';

在setup 中加入 Serial.begin(9600);

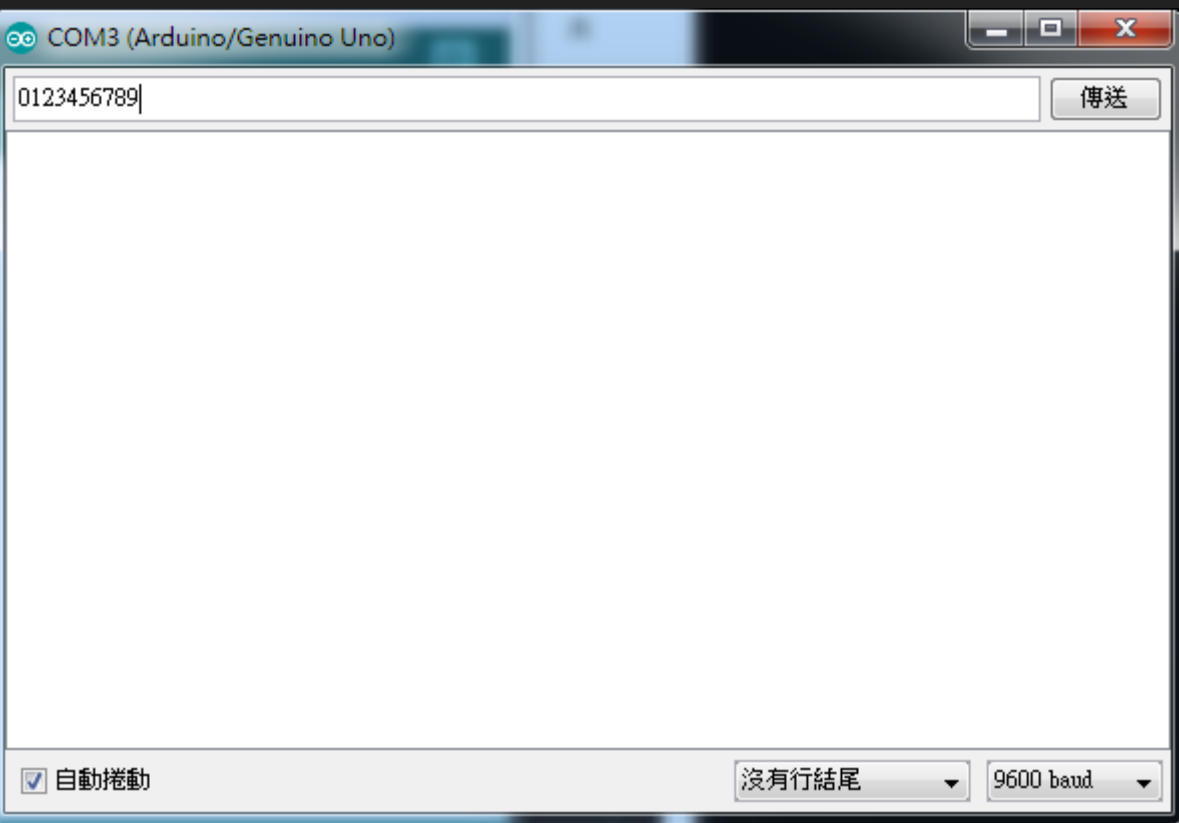


改變 loop

SerialValue=' '; //清空變數

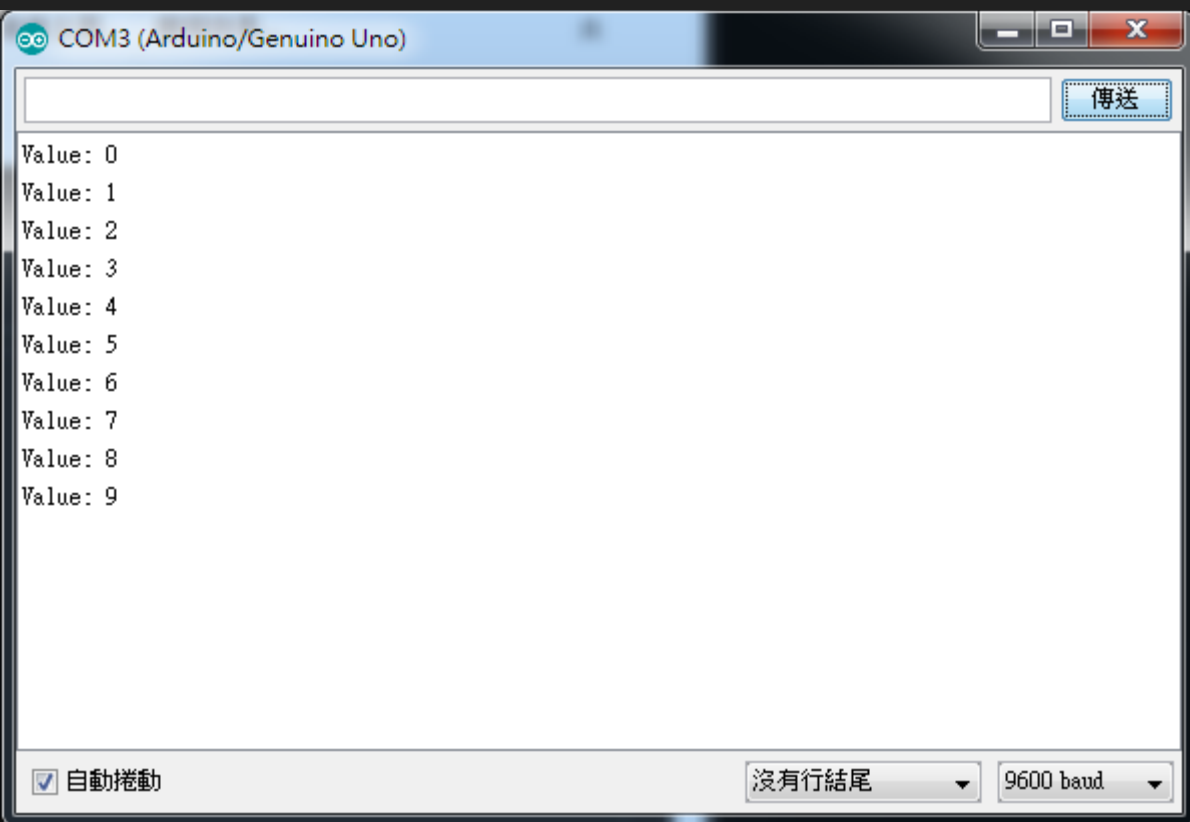
```
if(Serial.available()){
  SerialValue=Serial.read();
  Serial.print("Value: ");
  Serial.println(SerialValue);
}
```





在右上角打開監控視窗

隨意輸入



Arduino會個別讀取



```
switch(SerialValue){
  case '0':
    Serial.println("Input : 0");
    break;
  case '1':
    Serial.println("Input : 1");
    break;
  case '2':
    Serial.println("Input : 2");
    break;
}
```