

sketch\_mar24a.ino

```
1 #include "BluetoothSerial.h" //Header File for Serial Bluetooth
2 BluetoothSerial ESP_BT; //Object for Bluetooth
3 int incoming; //Valori primite prin bluetooth de la telefon
4 int LED_PIN = 15; //Pinul LED-ului
5 void setup() {
6   Serial.begin(9600); //Start Serial monitor in 9600
7   ESP_BT.begin("ESP32_LED+BUZZER_Control"); //Name of your Bluetooth Signal
8   Serial.println("Bluetooth Device is Ready to Pair");
9   pinMode(LED_PIN, OUTPUT); //Specify that LED pin is output
10  ledcSetup(0,0,8); //Canal 0, frecventa 0, rezolutie pe 8 biti
11  ledcAttachPin(18,0); //Pinul 18, canalul 0 PWM
12 }
13 void loop() {
14   if (ESP_BT.available()) //Check if we receive anything from Bluetooth
15   {
16     incoming = ESP_BT.read(); //Read what we receive
17     Serial.print("Received:"); Serial.println(incoming);
18   }
19   if (incoming == '1')
20   {
21     digitalWrite(LED_PIN, HIGH); // 5/3,3V output for LED (ON)
22     ESP_BT.println("LED turned ON");
23   }
24   if (incoming == '0')
25   {
26     digitalWrite(LED_PIN, LOW); // 0V output for LED (OFF)
27     ESP_BT.println("LED turned OFF");
28   }
29   if (incoming == '3')
30   {
```

Output Serial Monitor X

Message (Ctrl + Enter to send message to 'ESP32 Dev Module' on 'COM3')

New Line 9600 baud

```
20:51:21.218 -> Bluetooth Device is Ready to Pair
20:51:51.267 -> Received:49
20:51:51.386 -> Received:13
20:51:51.386 -> Received:10
20:51:58.263 -> Received:51
20:51:58.447 -> Received:13
20:51:58.447 -> Received:10
20:52:04.263 -> Received:52
20:52:04.383 -> Received:13
20:52:04.383 -> Received:10
20:52:09.074 -> Received:53
20:52:09.074 -> Received:13
20:52:09.208 -> Received:10
```

Activate Windows  
Go to Settings to activate Windows.

```
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16   incoming = ESP_BT.read(); //Read what we receive
17   Serial.print("Received:"); Serial.println(incoming);
18 }
19 if (incoming == '1')
20 {
21   digitalWrite(LED_PIN, HIGH); // 5/3,3V output for LED (ON)
22   ESP_BT.println("LED turned ON");
23 }
24 if (incoming == '0')
25 {
26   digitalWrite(LED_PIN, LOW); // 0V output for LED (OFF)
27   ESP_BT.println("LED turned OFF");
28 }
29 if (incoming == '3')
30 {
31   ledcWriteTone(0, 5000); //Canal 0, frecuencia 5KHz
32   ESP_BT.println("Buzzer turned ON 5000Hz");
33 }
34 if (incoming == '4')
35 {
36   ledcWriteTone(0, 1000); //Canal 0, frecuencia 1KHz
37   ESP_BT.println("Buzzer turned ON 1000Hz");
38 }
39 if (incoming == '5')
40 {
41   ledcWriteTone(0, 0); //Canal 0, frecuencia 0Hz (OFF)
42   ESP_BT.println("Buzzer turned OFF");
43 }
44 delay(20);
45 }
```

Output Serial Monitor X

Message (Ctrl + Enter to send message to 'ESP32 Dev Module' on 'COM3')

New Line 9600 baud

```
20:51:51.386 -> Received:10
20:51:51.386 -> Received:10
20:51:58.263 -> Received:51
20:51:58.447 -> Received:13
20:51:58.447 -> Received:10
20:52:04.263 -> Received:52
20:52:04.383 -> Received:13
20:52:04.383 -> Received:10
20:52:09.074 -> Received:53
20:52:09.074 -> Received:13
20:52:09.208 -> Received:10
20:52:12.925 -> Received:48
20:52:13.043 -> Received:13
20:52:13.203 -> Received:10
```

Activate Windows  
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## Terminal



20:51:26.112 Connecting to ESP32\_LED+BUZZER\_Contr  
ol ...  
20:51:26.614 Connected  
20:51:49.635 1  
20:51:49.894 LED turned ON  
20:51:56.524 3  
20:51:56.936 Buzzer turned ON 5000Hz  
20:52:02.661 4  
20:52:02.910 Buzzer turned ON 1000Hz  
20:52:07.541 5  
20:52:07.588 Buzzer turned OFF  
20:52:11.575 0  
20:52:11.611 LED turned OFF

M1

M2

M3

M4

M5

M6

