DIY | RGB Goggles

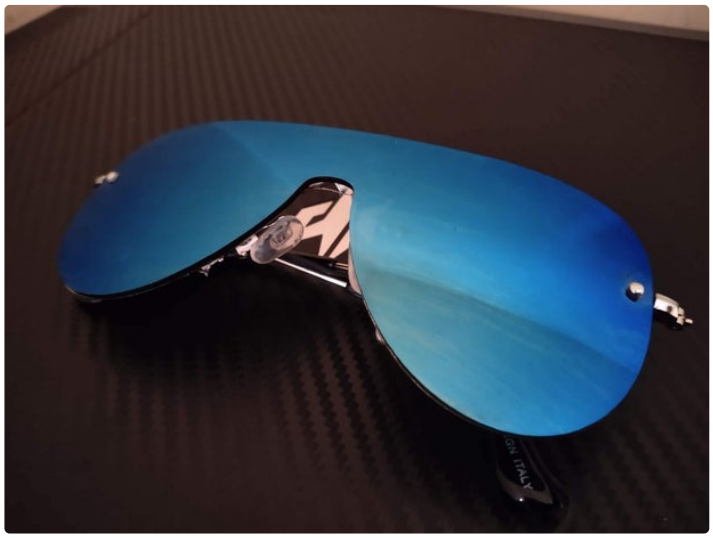
by mukeshdiy1

Hey! I have made a RGB Goggles using WS2812B LEDs and Arduino Nano.The Goggles have many animations they can be controlled using a mobile app.The app can communicate with arduino through Bluetooth Module.

Supplies:

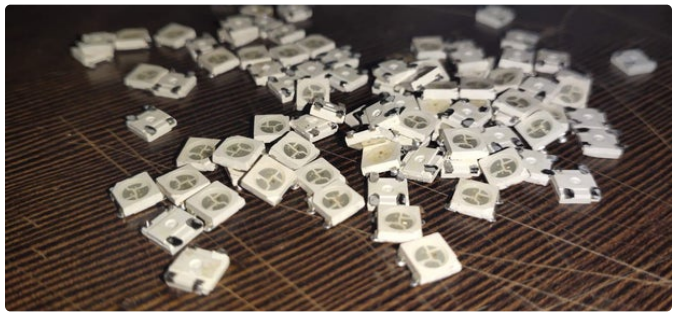
- Arduino Nano (1)
- WS2812B LEDs (88)
- HC06 Bluetooth Module (1)
- 3.7V Battery (1)
- On/Off Switch (1)
- Pair Of Goggles

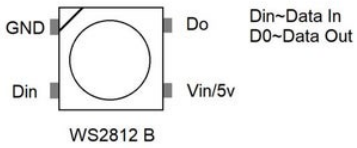
https://www.youtube.com/watch?v=yMi15hjzdFM&t=1s

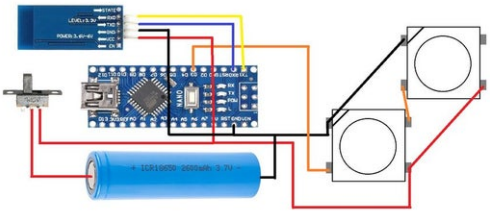


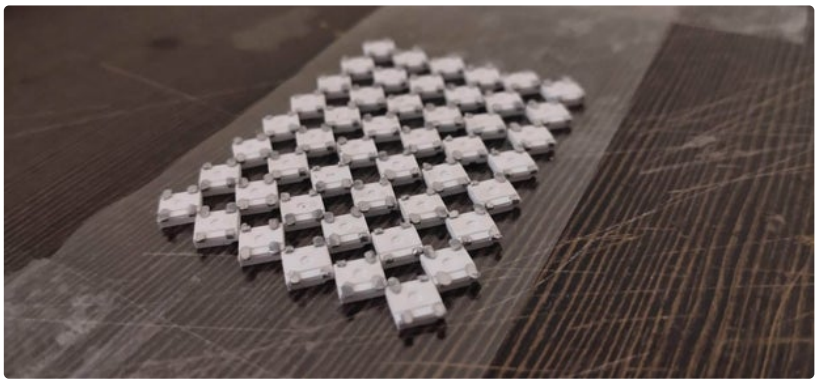
Step 1: Circuit Connections

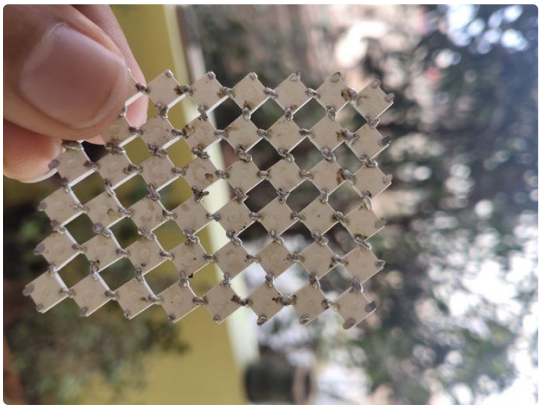
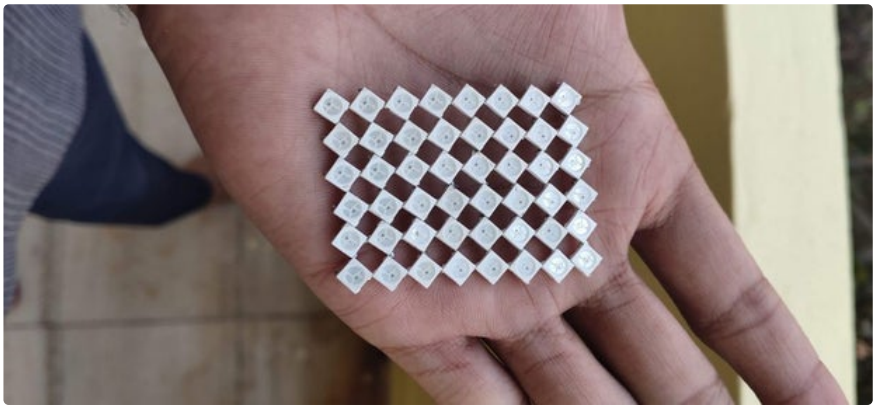
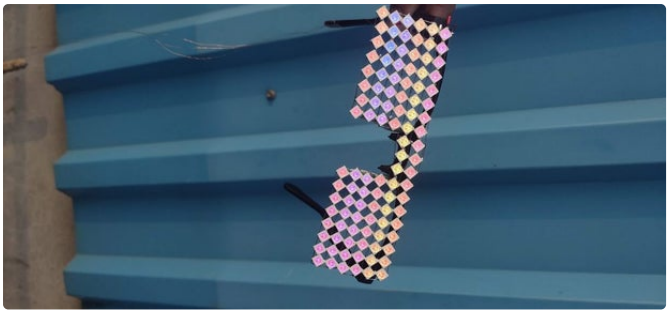
- Take 88 WS2812b LEDs and arrange them on a cello tape or Double sided tape.
- The LEDs should be arranged in such a way that all the grounds and Vcc should should be in same respective lines.
- The alternate LEDs lines should be inverted so that the GND/Vcc becomes common for two LEDs lines.
- Make all the LEDs Data in and Data out connections.
- After all the LEDs connections now connect Arduino as shown in circuit diagram.
- GND~GND
- 5v/3v ~Vin/5v
- Data pin ~ Pin 3





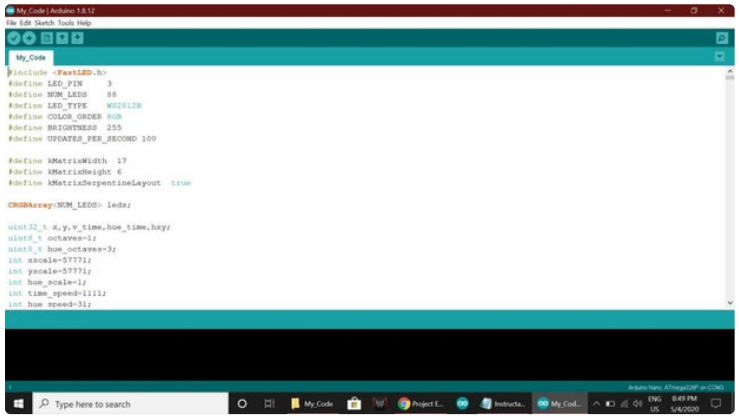





Step 2: Code

- Before Uploading code make sure that RXD and TXD pins are disconnected.
- Open the code in Arduino IDE.
- Include all the libraries that are in the code.
- Select Board Type and Port.
- Upload The Code.
- After Uploading code connect them back.
- Code and App Link: https://drive.google.com/drive/u/1/folders/1kIGv8...



Step 3: App Setup

- Install The app give in the above link.
- Open Bluetooth settings.
- Turn on the Goggles.
- Search for HC06 In Bluetooth Settings and pair it by entering password as 1234.
- Open the app click on Bluetooth Icon Select HC06.
- And You are Ready!
- Click on any animation you want.
- Place all the electronics in a container.