Voice Controlled Light

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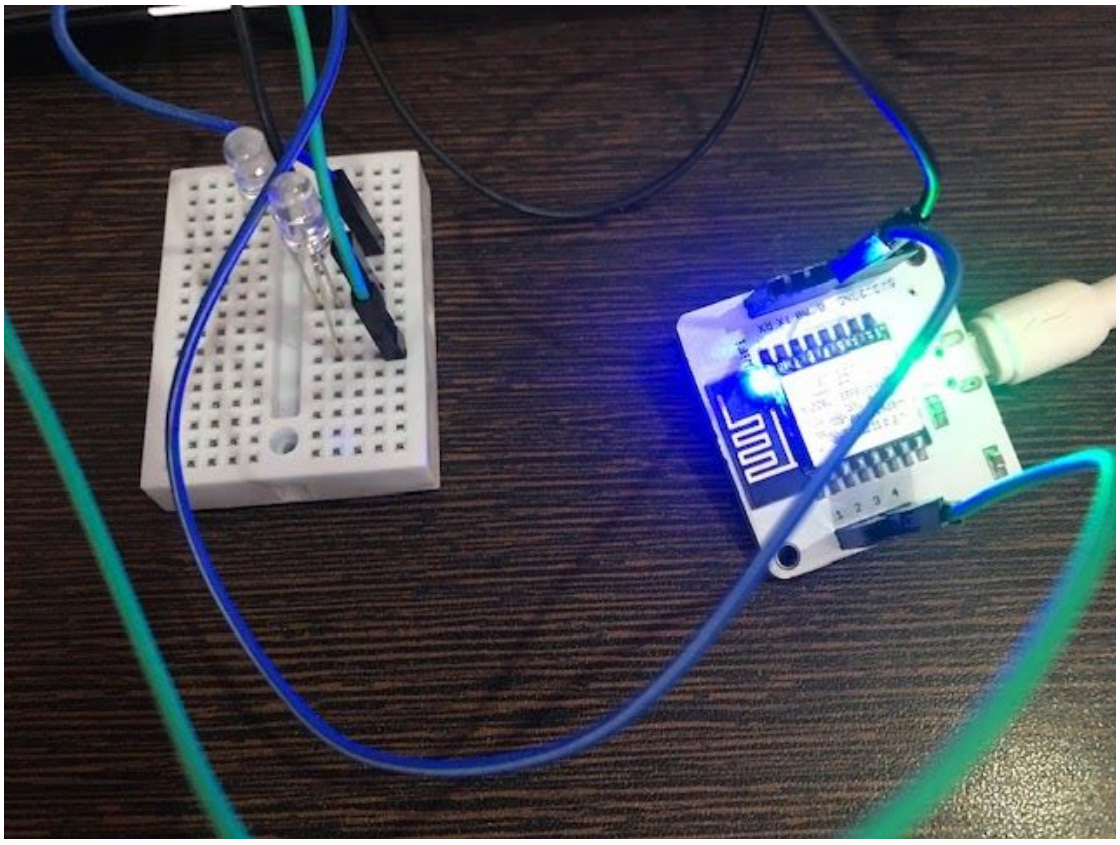
Overview

The Multiple LEDs are controlled by Google Voice Assistant. It is triggered by voice command like “OK Google, Turn ON/OFF the light”.



Things Used in this project

Hardware Components

1. Bolt WiFi Module
2. USB-A to Mini-USB Cable
3. 2 LEDs
4. Breadboard
5. Connecting wires
6. Power Bank

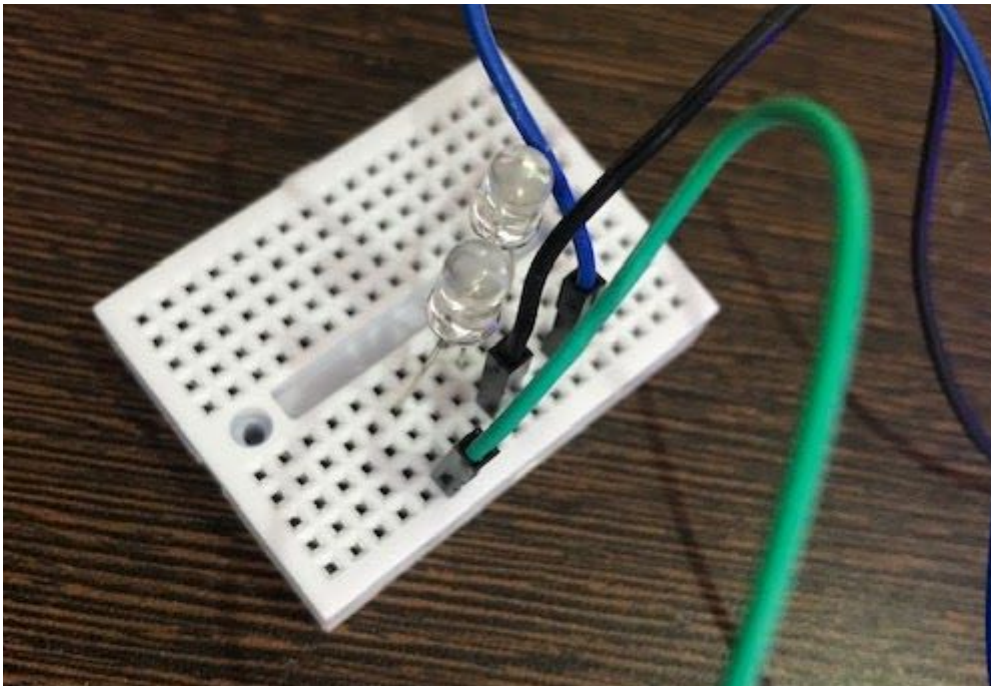
Software apps and Online Services

1. Bolt IoT Android app
2. IFTTT
    - Google Assistant
    - Webhooks

Story

Introduction

This project is about triggering the light ON/OFF using voice commands with the help of Google Voice Assistant. The triggers are built using IFTTT services - Google Assistant & Webhooks, WiFi Module.



Steps to Build this Project

- Take the Breadboard and insert 2 LEDs (named Light 1 & Light 2).
- Connect the Light 1 & Light 2 to the Bolt WiFi Module with the help of connecting wires. Positive terminals of LED 1 & LED 2 to pin 0 & pin 2 respectively and negative terminals of both the LEDs to GND.

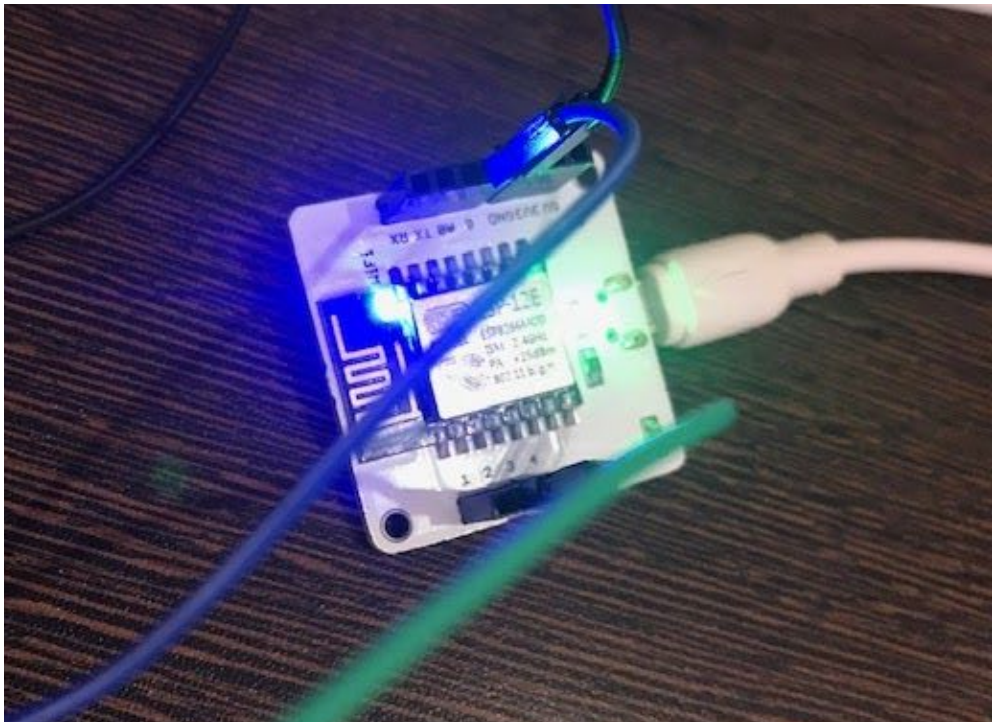
- Power the WiFi Module by connecting it with USB Cable. You can either connect directly to the socket or Laptop (or power bank). Blue LED on the module will start blinking slowly.

- Go to https://cloud.boltiot.com and signup, then verify the email by clicking the link you've received on your Gmail Account. (or log in if you already have an account)

- Download the Bolt IoT Mobile App on your android or IOS. Log in using the same credentials as of the Bolt cloud. (previous step)

- On the Mobile App, click on “Add Device” after login. Then click on “Ready”. Now go to wifi settings in your mobile, then connect to the hotspot of the Bolt Module. When connected, the LED will start blinking fastly.

- Now go to the app, click “Continue”. Then Connect with the available WiFi to access the internet. Click on “Connect”. Successful connection to the internet can be confirmed with the Stable Blue LED and Stable Green LED on the WiFi Module.



- Now, go to https://cloud.boltiot.com, click on “Devices” on the left panel to check the device ID and status.

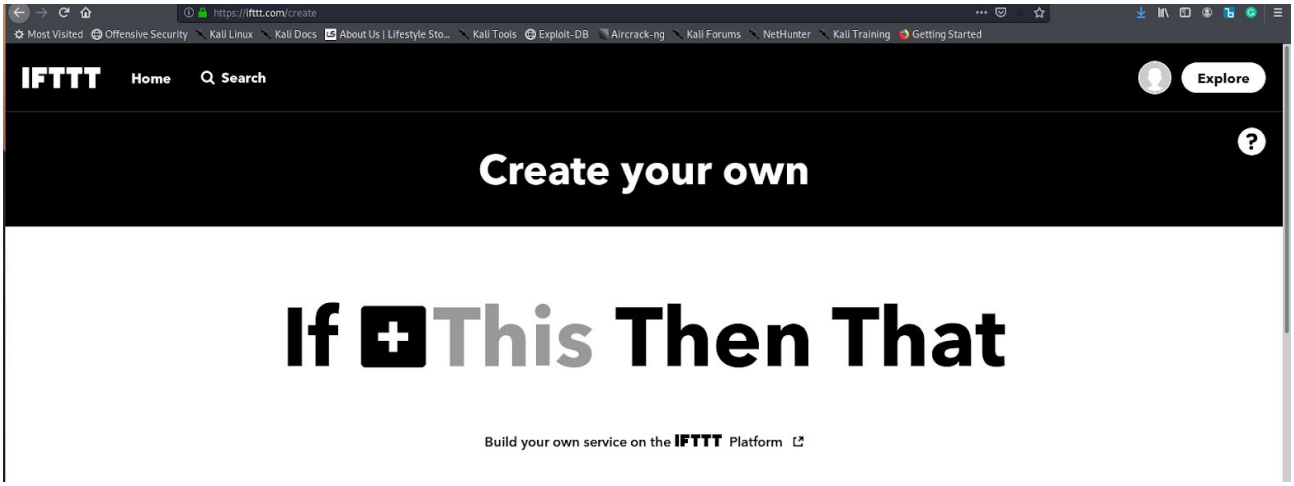
- Go to https://docs.boltiot.com/docs/write-digital-output-1 to create GPIO control command. The structure of the command is:

  https://cloud.boltiot.com/remote/**API_KEY**/digitalWrite?pin=**PIN_NUMBER**&state=**HIGH/LOW**&deviceName=**DEVICE_ID**

- Now we have to integrate IFTTT services to make it work.

- Download Google Assistant app (if using IOS) & log in with Gmail account.

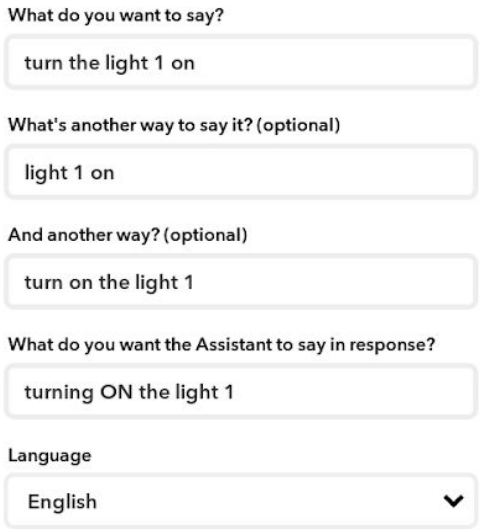
- Go to https://ifttt.com/create and then log in with the same Gmail account. Now Click on “+THIS”.



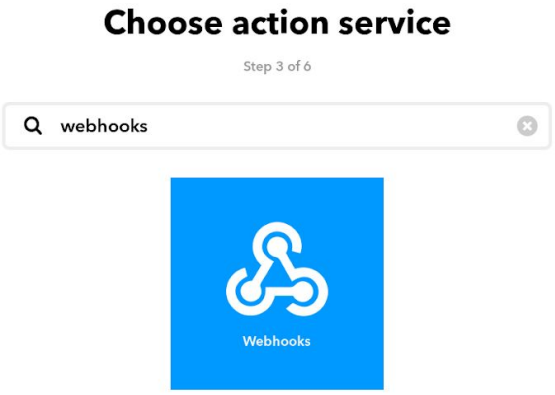
- Search and select “Google Assistant”.

- Now choose “Say a simple phrase”.

- Fill it with similar trigger commands, as shown below. Then Click on “Create Trigger”.

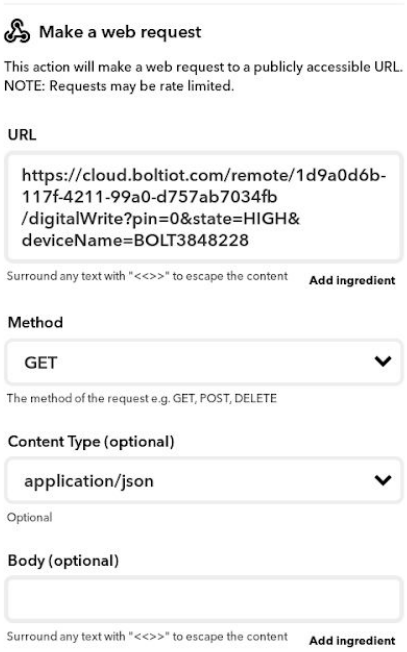


- Now Click on “+ that”. Then search & choose “Webhooks”.



- Click on “Make a Web request”.

- Now fill the fields as following to trigger the LED to turn ON.



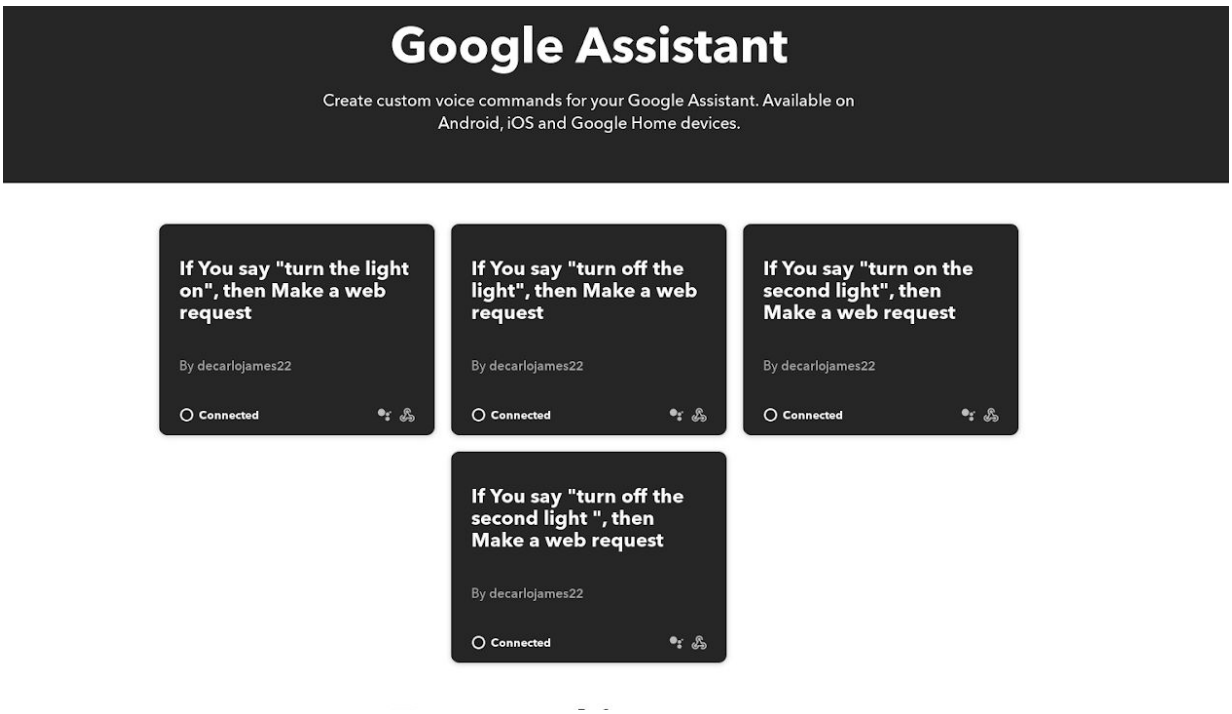
- Replace the sample API_KEY, pin number and deviceName with your own API_KEY, pin number and deviceName respectively.

- Now click on “Create Action”. Then click on “Finish”.

- Now follow the same procedure to create a trigger to turn OFF the LED. But replace “state=HIGH” with “state=LOW”.

- Multiple LEDs to trigger follow the above steps (including the last one), just change the pin number (e.g. pin = 2) in the “web request URL”.

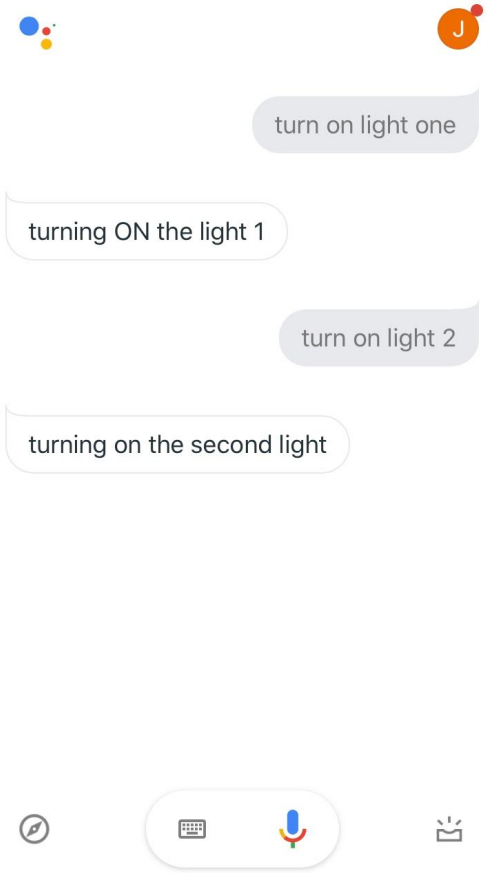
- When you’re done, you will have 4 triggers to turn the LED 1 & LED 2 OFF/ON respectively.

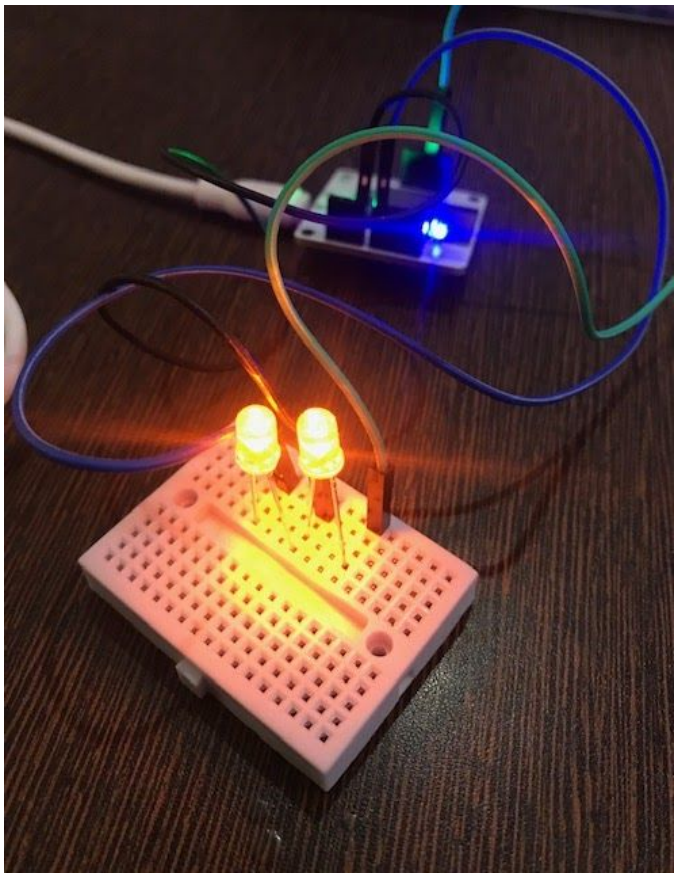


- In order to trigger the product. Open the Google Assistant.

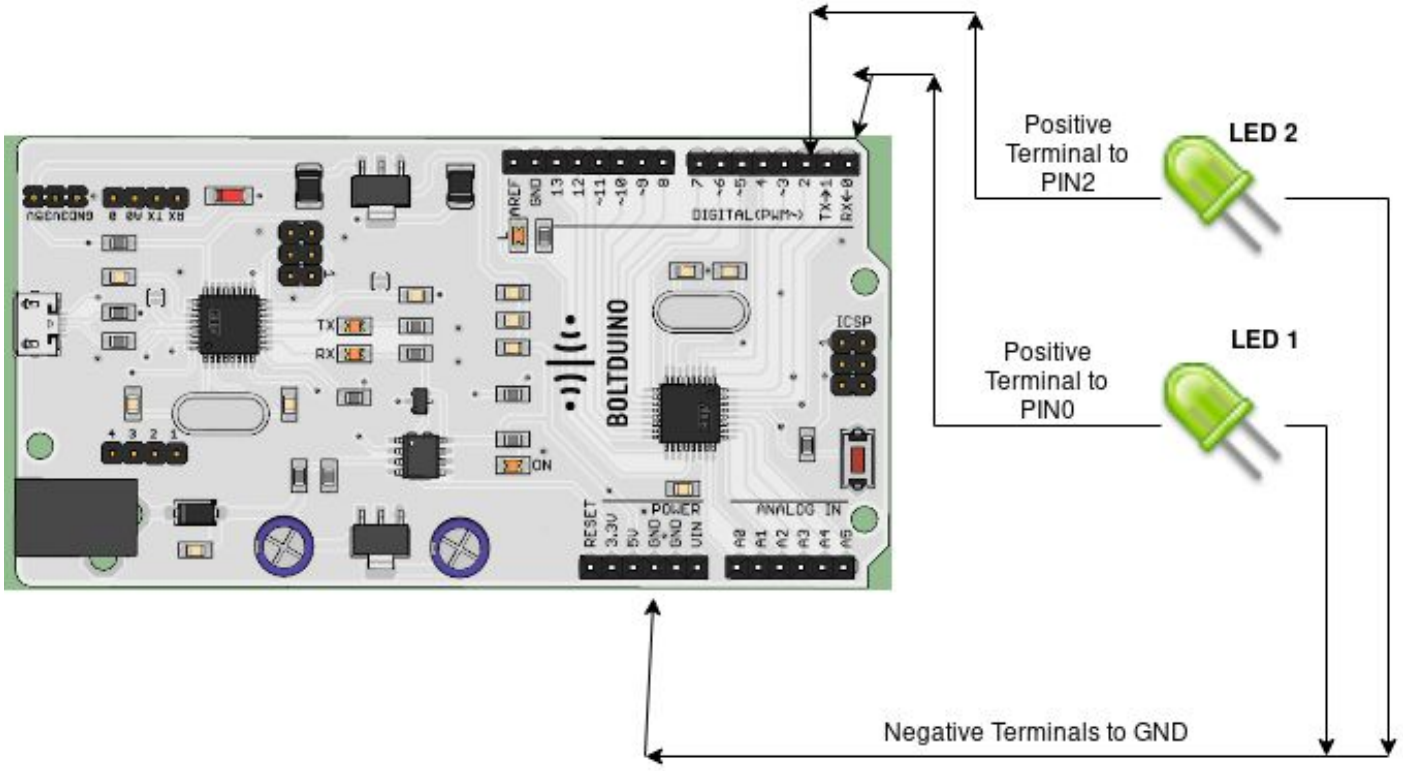
- Say “Ok Google Turn ON the light 1” or “Ok Google Turn ON the light 2”.

- To turn OFF: “Ok Google Turn OFF the light 1” or “Ok Google Turn OFF the light 2”.


J
turn on light one
turning ON the light 1
turn on light 2
turning on the second light



Schematics


Positive
Terminal to
PIN2
LED 2
Positive
Terminal to
PIN0
LED 1
Negative Terminals to GND
BOLTDUINO