Using the Blynk IoT application with NodeMCU ESP8266

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Blynk Application
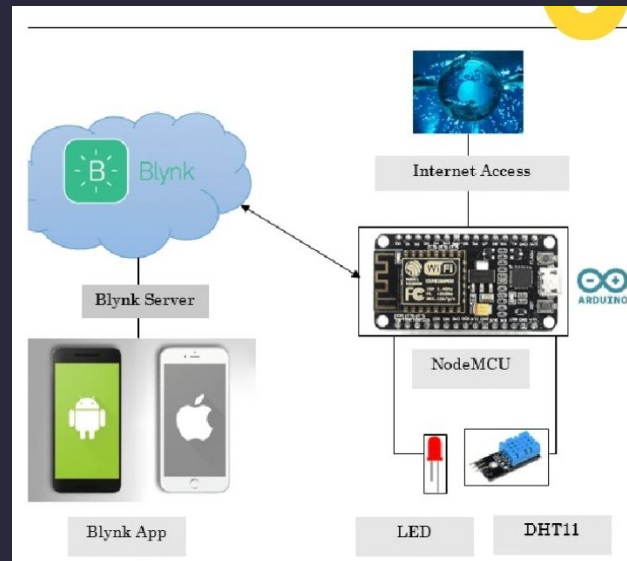
→ **Blynk Application**

Blynk is a ready-made Internet of Things (IoT) application that offers an interesting feature: easy programming without the need to develop your own app. It allows real-time interactions and straightforward connections between various devices and the internet. You can easily connect hardware like Arduino, ESP8266, ESP32, NodeMCU, Raspberry Pi, and more to the internet. What's even better is that Blynk is free and compatible with both iOS and Android systems.
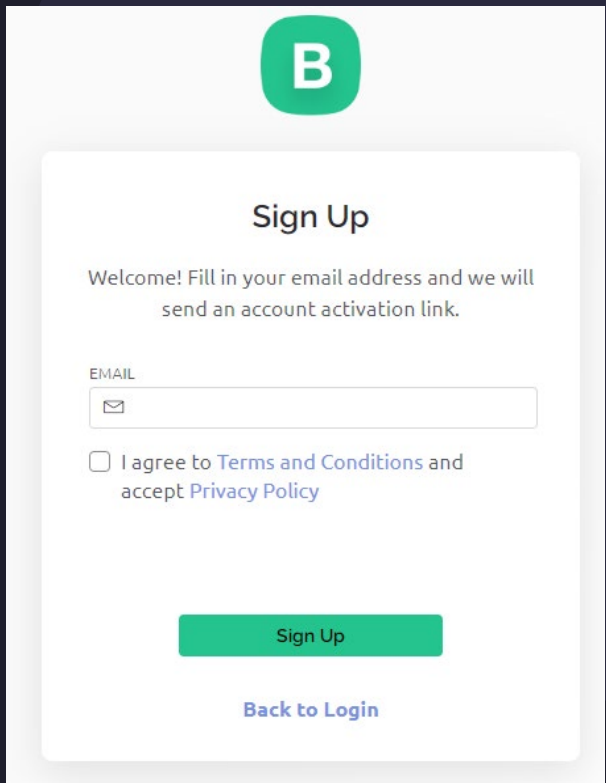
With Blynk, anyone can connect their hardware to the cloud, create iOS, Android, and web apps without writing a single line of code, analyze real-time and historical data from devices, and control them remotely from anywhere in the world. Blynk also offers important features like receiving critical notifications and much more.

The structure of connecting to the Blynk Server
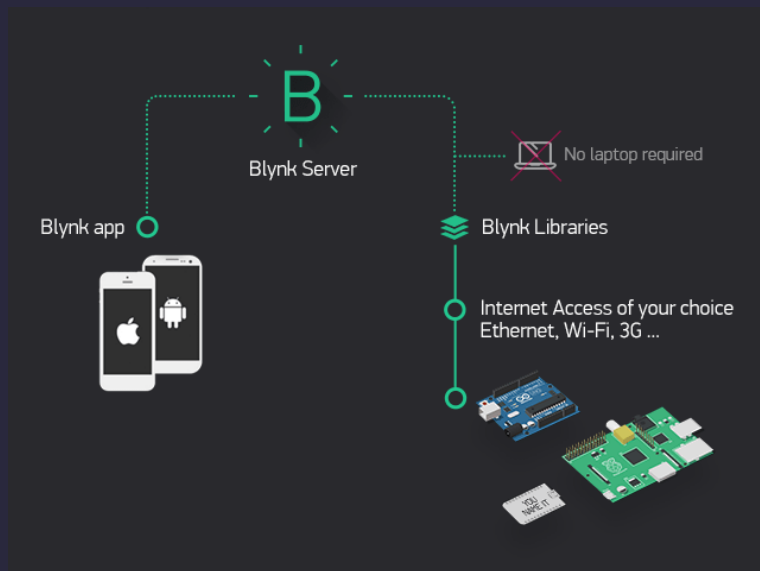
Registering for Blynk

Sign Up

Welcome! Fill in your email address and we will send an account activation link.

EMAIL

☐ I agree to Terms and Conditions and accept Privacy Policy

Sign Up

Back to Login

1. Go to the website https://blynk.cloud/dashboard/register, enter a valid email address, then click on "I agree to Terms and Conditions and accept Privacy Policy" and finally, click on the "Sign Up" button as shown in the image.

2. Check your email inbox that you provided during registration. Look for an email with the subject "Welcome to Blynk.Console." Inside this email, there should be a link or option to "Create Password." Click on that link or option to set up your password for accessing Blynk Console on your own.

Create a Template

1． Go to the website https://blynk.cloud/dashboard/login, enter your email and password, then click on "Log In."

2． Select "New Template."

Create a Template

3. In the window, select the data as shown in the image. Once done, click on "Done."

Create Data Stream

1. In the Template page, click on the Datastreams tab, then select "New Datastream" and choose "Virtual Pin."

Create Data Stream

2. In the Virtual Pin Datastream window, fill in the information as shown in the image below, then click "Create."

Create Data Stream

3. Click on the Home menu, and then click on Add first Device. Enter the Device name and press the Create button.

New Device

DEVICE NAME

New Device

Cancel   Create

LED Control

Home   Datastreams   Web Dashboard   Automations   Metadata   Events   Mobile Dashboard

What's next?

◯ Configure template

◯ Set up the Web Dashboard

◯ Add first Device

Done:

✓ Set Up Datastreams

Create Data Stream

4. Click to enter the Device that we've created.

LED Control

| Home | Datastreams | Web Dashboard | Automations | Metadata | Events | Mobile Dashboard |
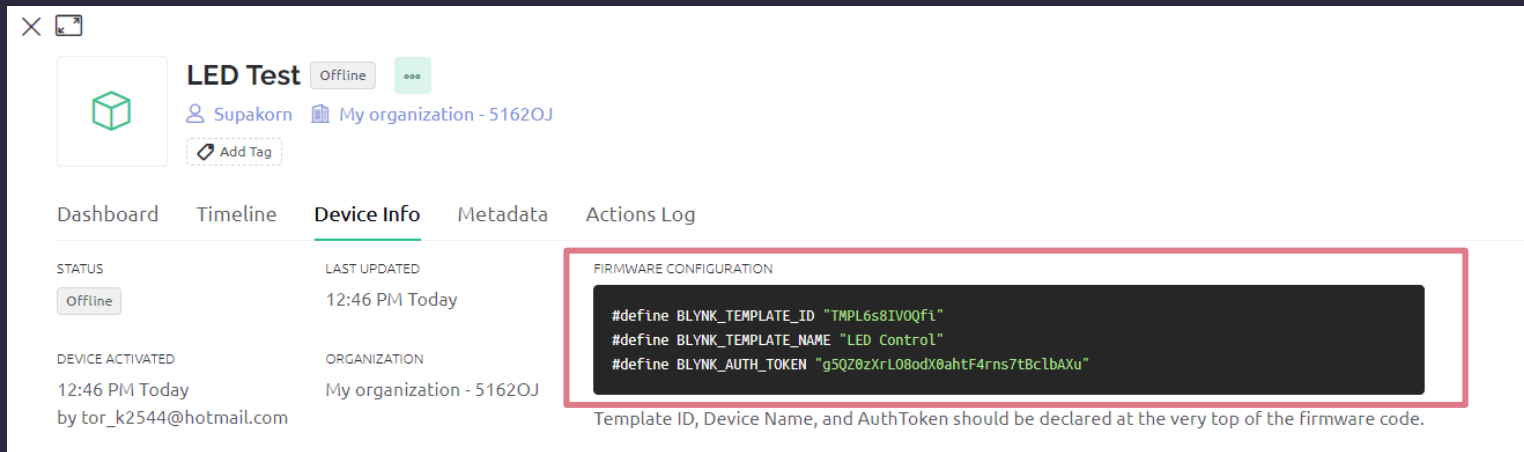
1 Devices

+ New Device

Device name	Status	Authtoken
LED Test	Offline	tWIJ - •••• - •••• - ••••

Create Data Stream

5. When you click in, go to the Device info menu, copy the code under FIRMWARE CONFIGURATION, and save it.

LED Test Offline ···

👤 Supakorn 🏢 My organization - 5162OJ

🏷 Add Tag

Dashboard   Timeline   **Device Info**   Metadata   Actions Log

STATUS
Offline

LAST UPDATED
12:46 PM Today

DEVICE ACTIVATED
12:46 PM Today
by tor_k2544@hotmail.com

ORGANIZATION
My organization - 5162OJ

FIRMWARE CONFIGURATION

```
#define BLYNK_TEMPLATE_ID "TMPL6s8IVOQfi"
#define BLYNK_TEMPLATE_NAME "LED Control"
#define BLYNK_AUTH_TOKEN "g5QZ0zXrLO8odX0ahtF4rns7tBclbAXu"
```

Template ID, Device Name, and AuthToken should be declared at the very top of the firmware code.

To install the Blynk library

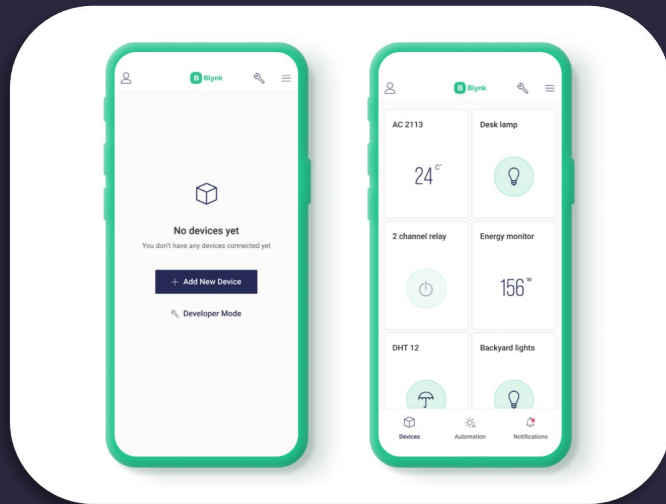1. Open Arduino IDE and go to Sketch>Include Library>Manage Libraries

2. Type "Blynk" in the "Filter your search..." box to search for the Blynk library. The Blynk library should appear in the list of available libraries. You can then click the "Install" button to install it.
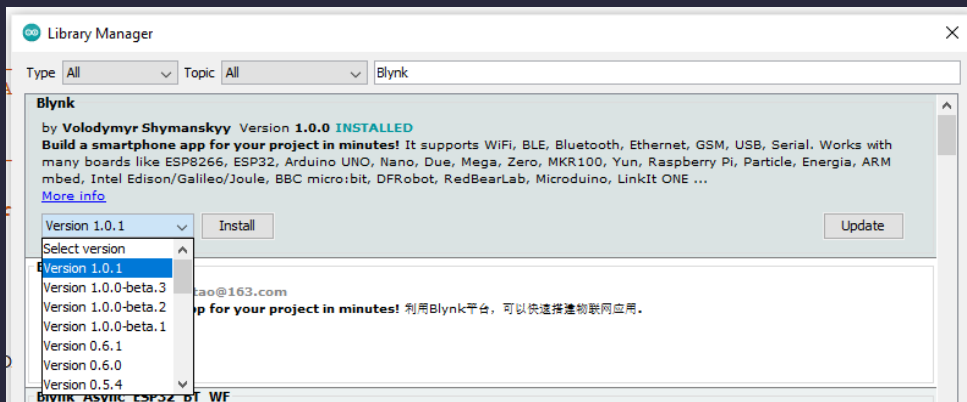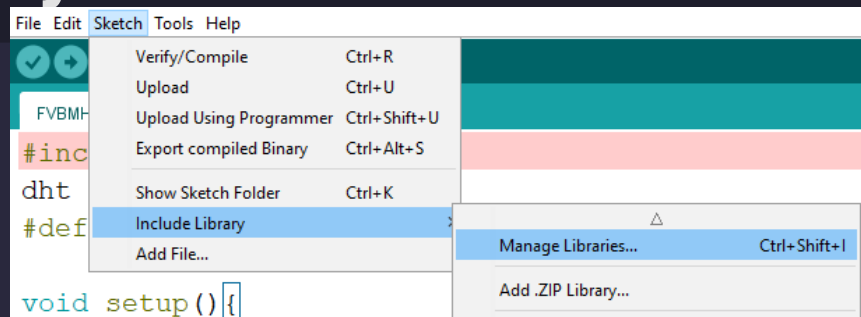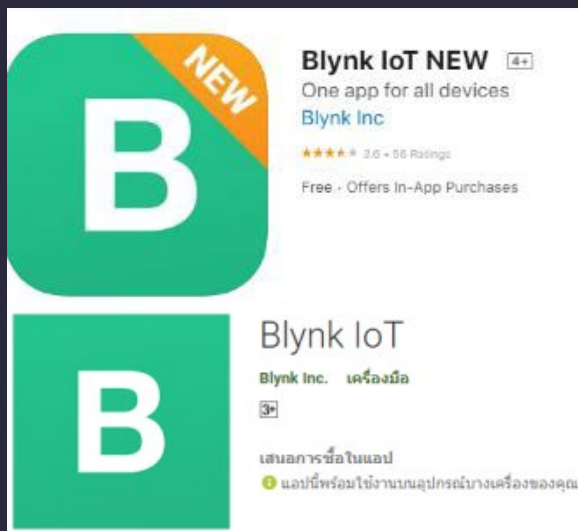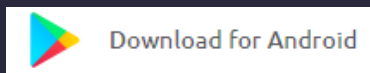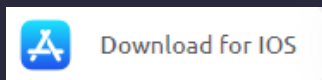
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/Creating a Mobile Dashboard (Device)
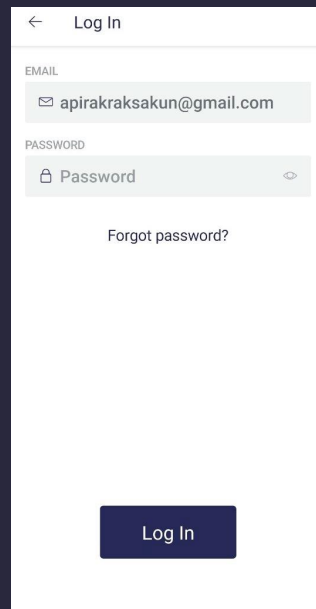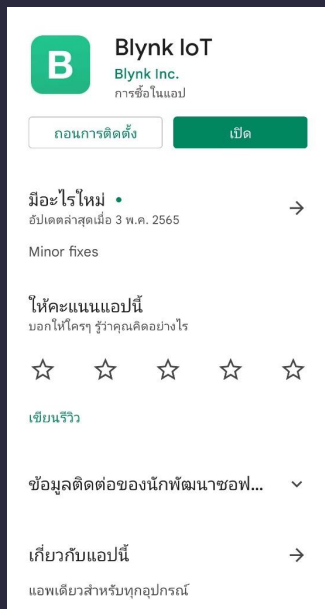
Creating a Mobile Dashboard (Device)

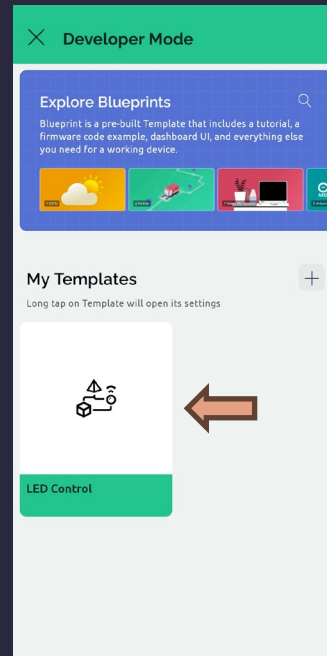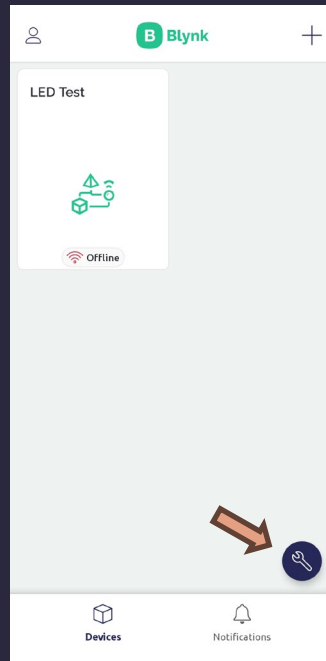1. Install the "Blynk IoT" application on your mobile phone.

Creating a Mobile Dashboard (Device)

2. Log in using the email and password you registered with earlier.

Creating a Mobile Dashboard (Device)

3. Click on the wrench icon to access the Developer Mode. Then, select the Templates section in the Dashboard, where you've previously created your templates.
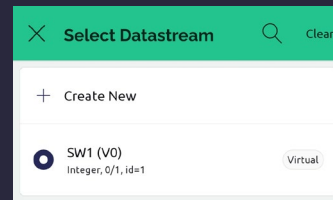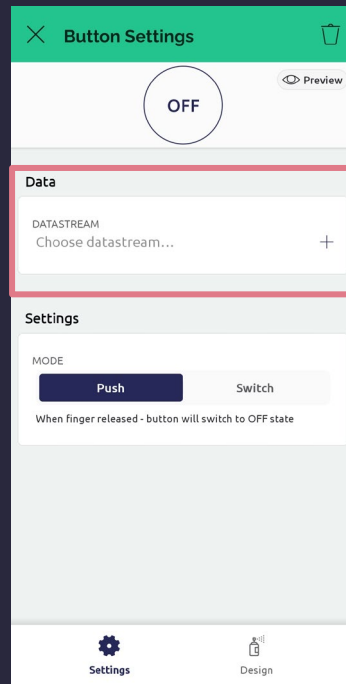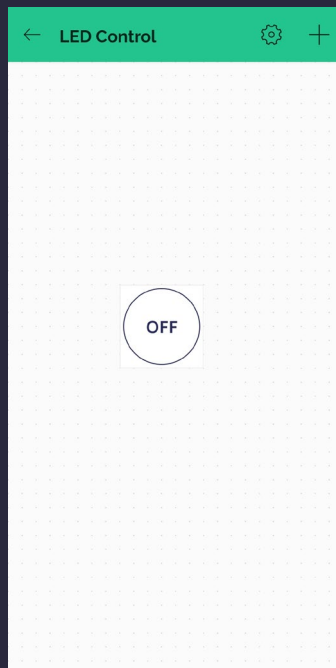
Creating a Mobile Dashboard (Device)

4. When you enter Developer Mode, click on the "+" symbol and then select Button in order to add a Button.
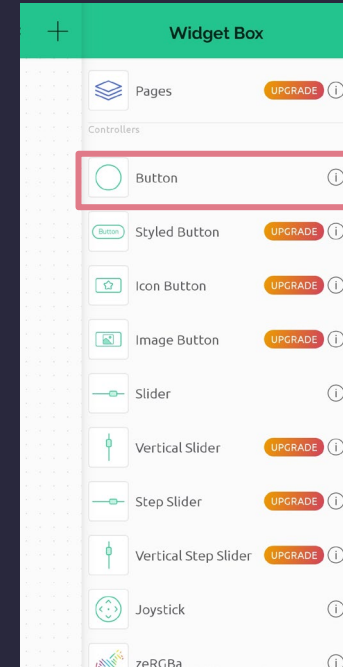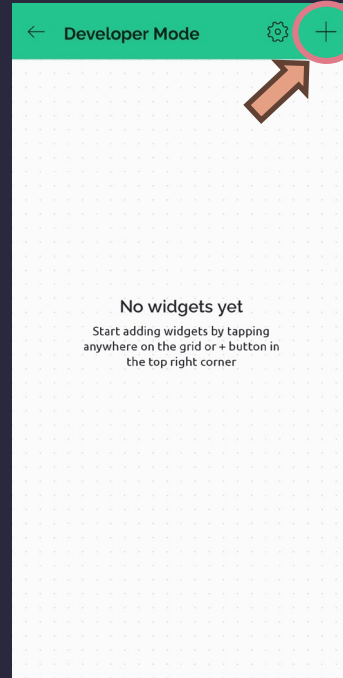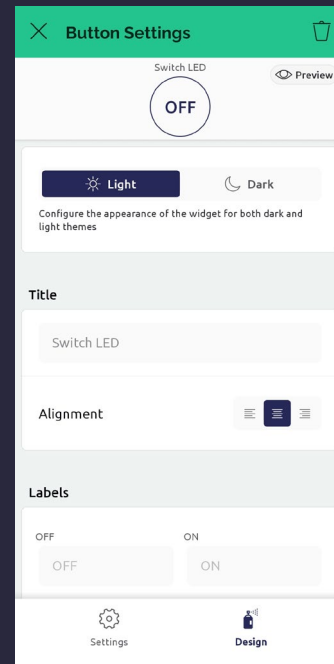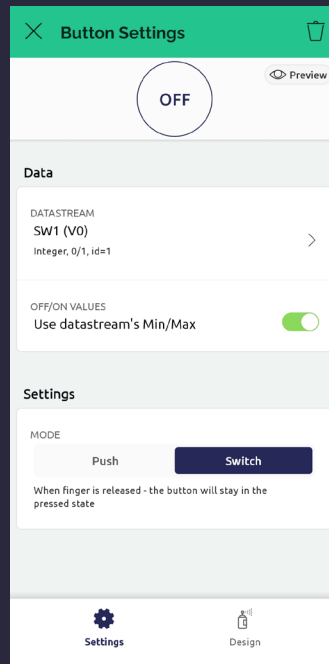
Creating a Mobile Dashboard (Device)

5. Once you've created the button, click on it to enter its settings. Under the Data section, click and select the Virtual Pin you previously created.
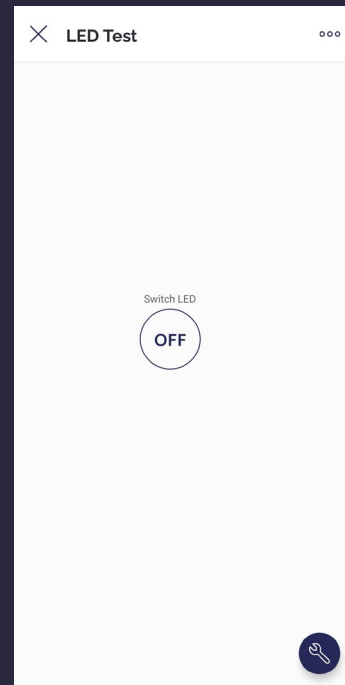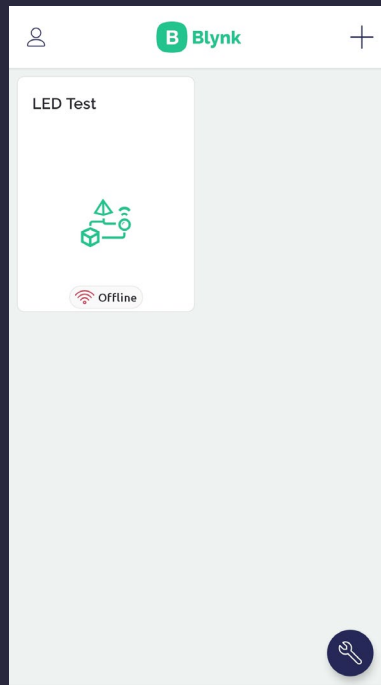
Creating a Mobile Dashboard (Device)

6. On the button's configuration page, you can set the button type and customize its design. You can edit the button's text or change its color, among other design options.

Creating a Mobile Dashboard (Device)

7． When you go back to the "Device" page, click on your device, and you will find the button you created.

Q/A