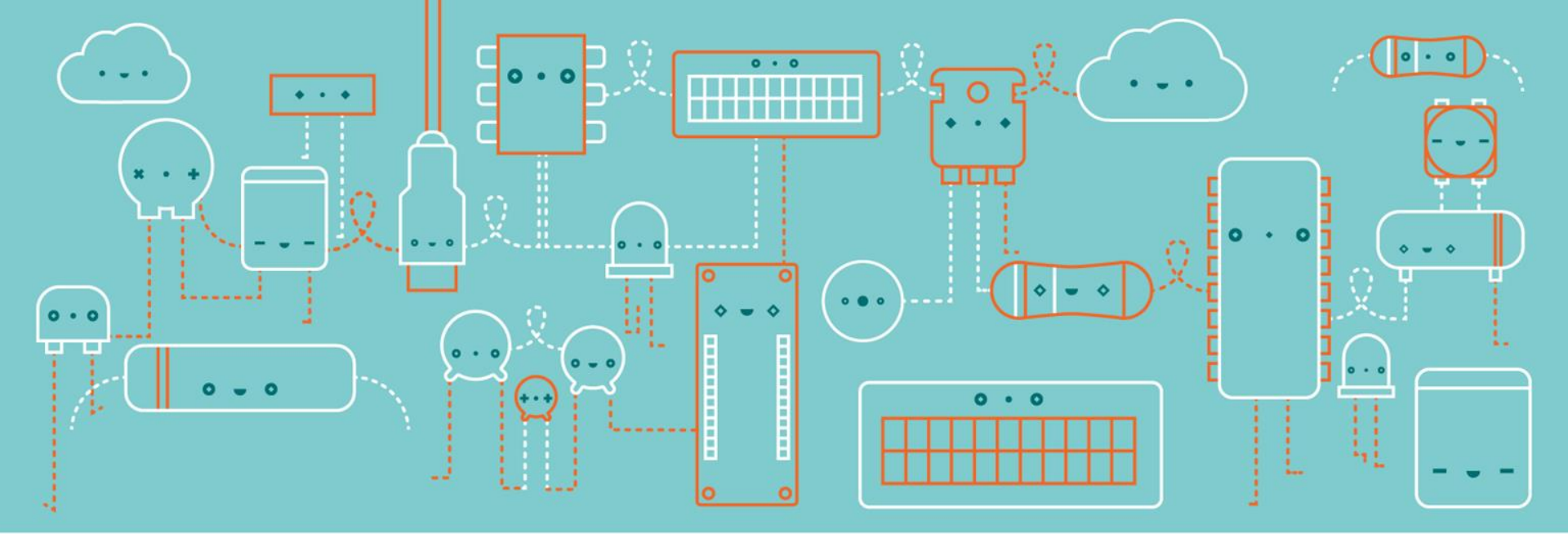

Plataformas Software para IoT en la Nube: Blynk

Alexander López Parrado, PhD

UNIVERSIDAD DEL QUINDÍO

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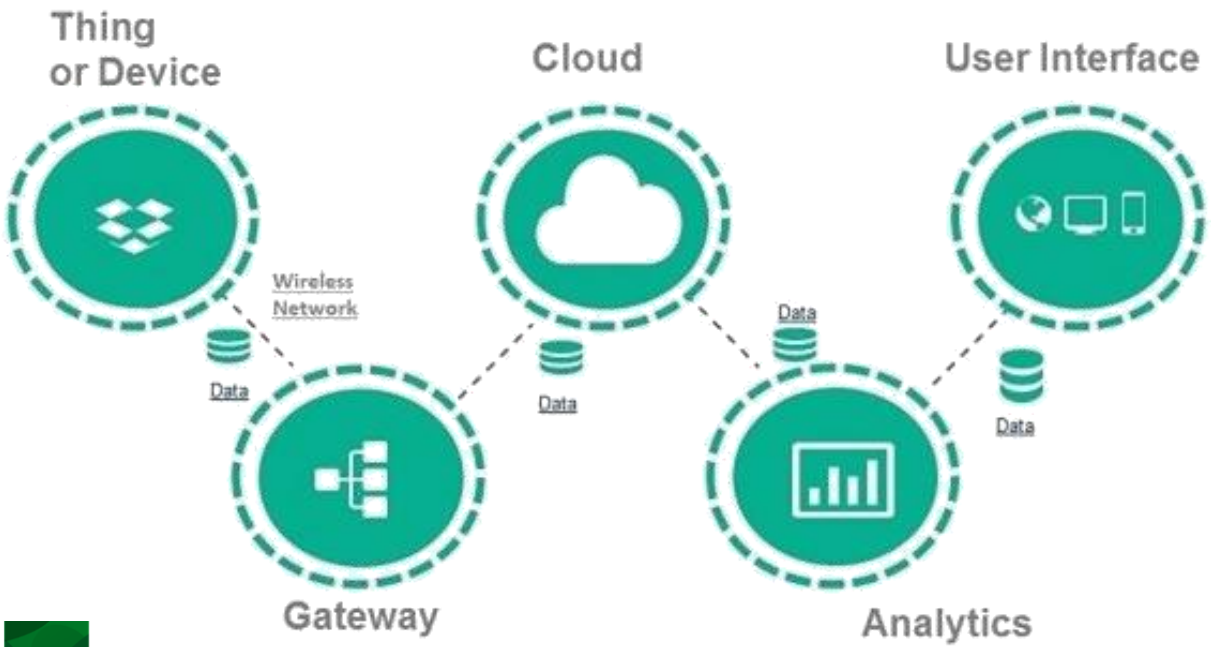
Contenido

- **Introducción**
  - Cadena de valor de IoT
- **Blynk**
  - Aplicación móvil
  - Biblioteca Blynk para ESP32
  - Demo

INTRODUCCIÓN

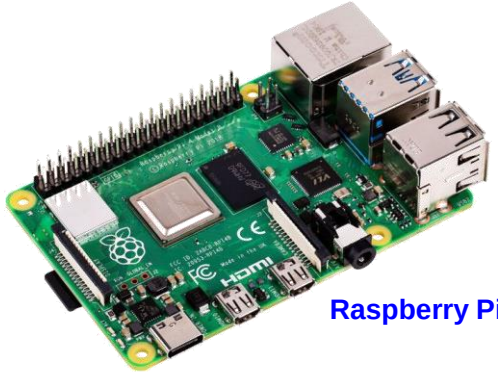
- **Cadena de valor de Internet of Things (IoT)**
  - 50000 millones de dispositivos conectados para 2025



- **Dispositivos**

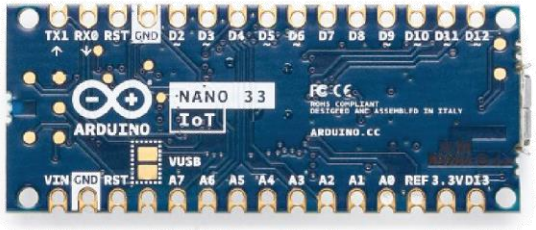
ESP8266

ESP32



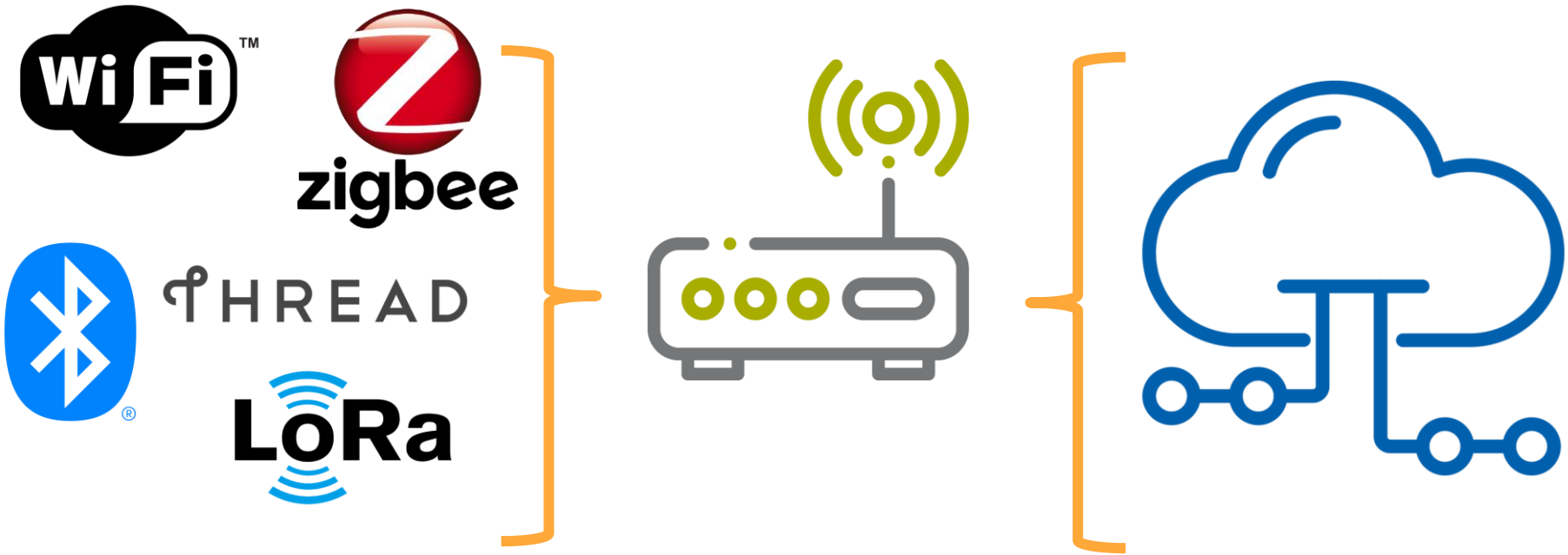
Raspberry Pi

Thunderboard

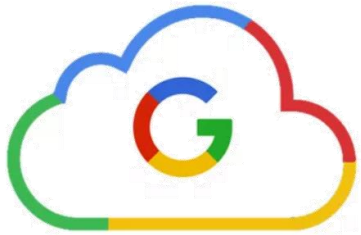


Arduino Nano 33 IoT

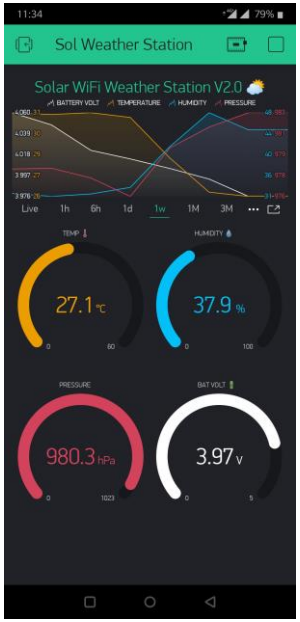
- **Pasarelas/*Gateways***



- **Plataformas *cloud***



- **Aplicaciones**



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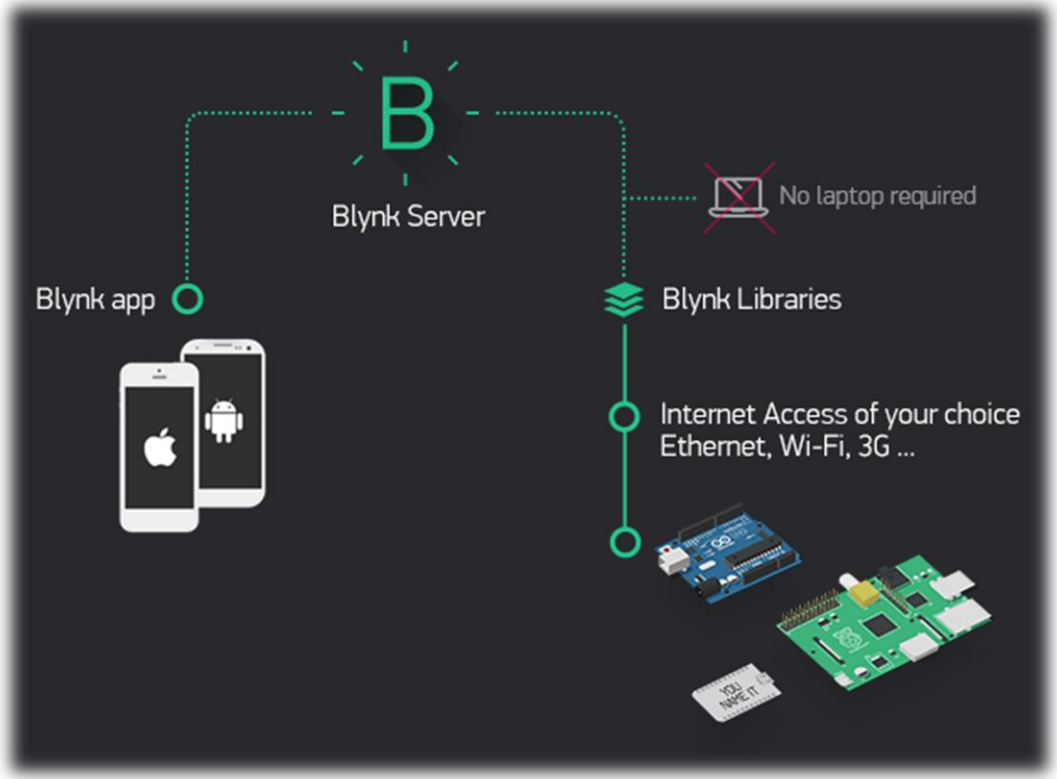
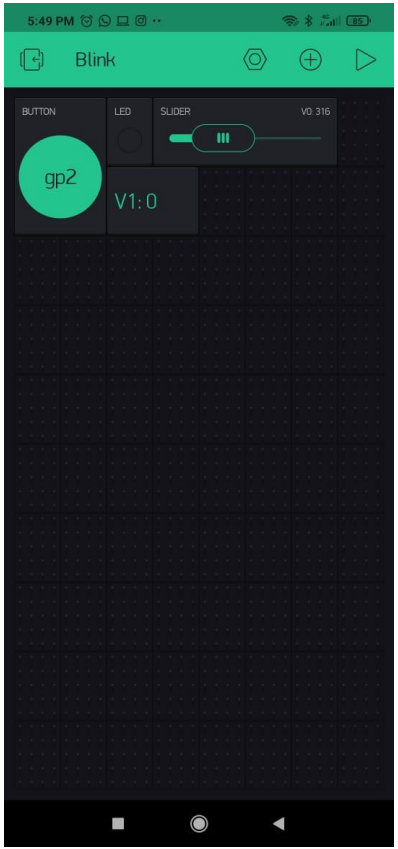
BLYNK

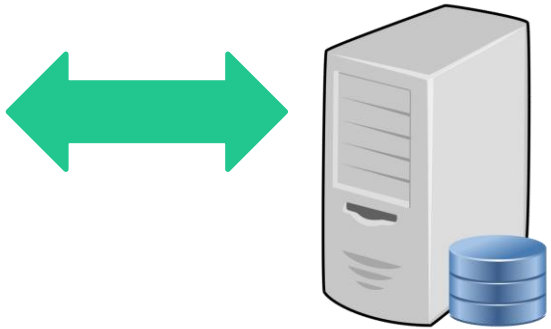
- No se requieren conocimientos previos de HTTP, API REST o bases de datos
  - ***Noob proof***
- Rápida construcción de aplicaciones IoT
- Soporte para diferentes plataformas hardware: **ESP32**, ESP8266, RaspBerry PI, Arduino

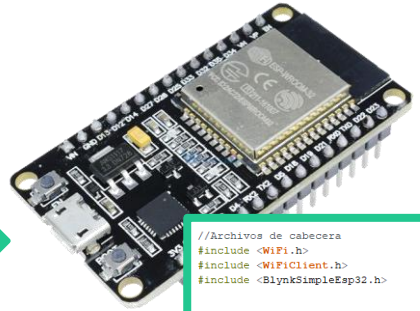


Fuente: https://blynk.io/en/getting-started



Blynk





```
//Archivos de cabecera
#include <WiFi.h>
#include <WiFiClient.h>
#include <BlynkSimpleEsp32.h>


//Led de usuario del ESP32
#define LED 2

//Pin de entrada analógico
#define AI 34

//Token de la aplicación
char auth[] = "tJTDZhZdQTNAnXH0urINYGnZ_z0XAJSI";

//Credenciales de la red WiFi
char ssid[] = "ALP";
char pass[] = "18399636";
```

Auth Token : tJTDZhZdQTNAnXH0urINYGnZ_z0XAJSI

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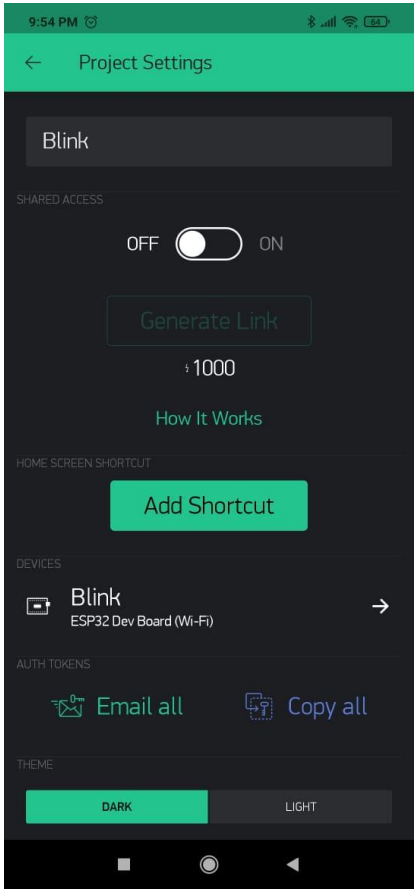


Auth Token for Blink project and device Blink

Inbox ×

Blynk <dispatcher@blynk.io> Unsubscribe 3:15 PM (6 hours ago

to me

Auth Token: 9H_AeqFefX_bldxzyU-e8QGTGoaCerCb

Happy Blynking!

-

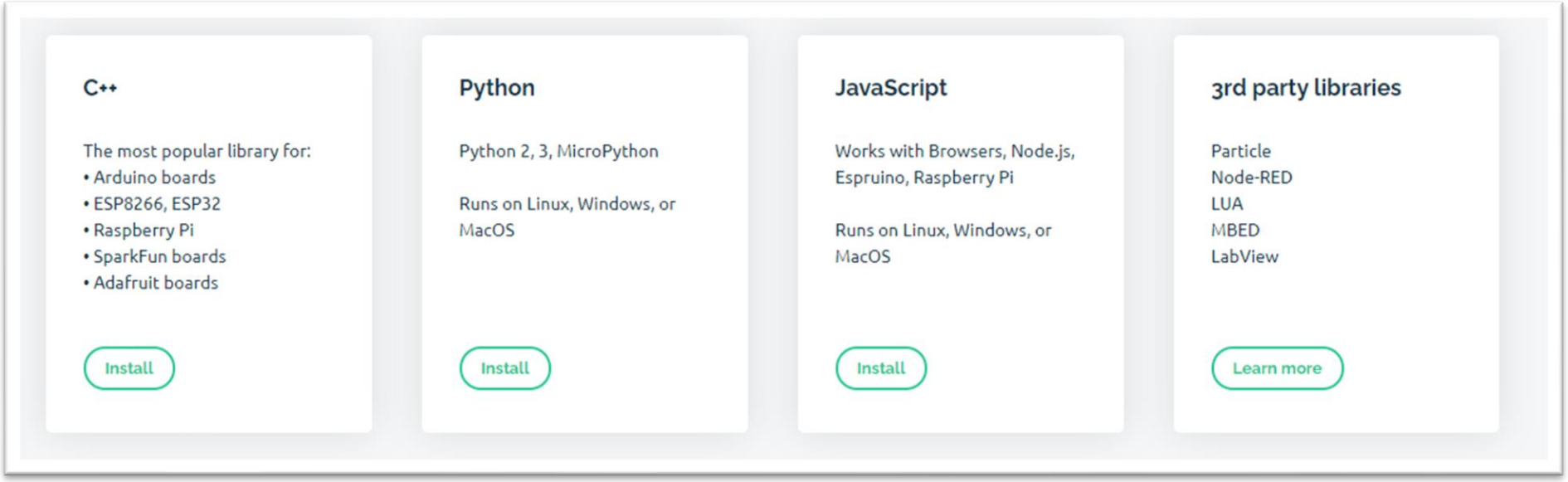
Getting Started Guide -> https://www.blynk.cc/getting-started
Documentation -> http://docs.blynk.cc/
Sketch generator -> https://examples.blynk.cc/

Latest Blynk library -> https://github.com/blynkkk/blynk-library/releases/download/v0.6.1/Blynk_Release_v0.6.1.zip
Latest Blynk server -> https://github.com/blynkkk/blynk-server/releases/download/v0.41.13/server-0.41.13.jar

-

https://www.blynk.cc
twitter.com/blynk_app
www.facebook.com/blynkapp

- **Bibliotecas para Blynk**



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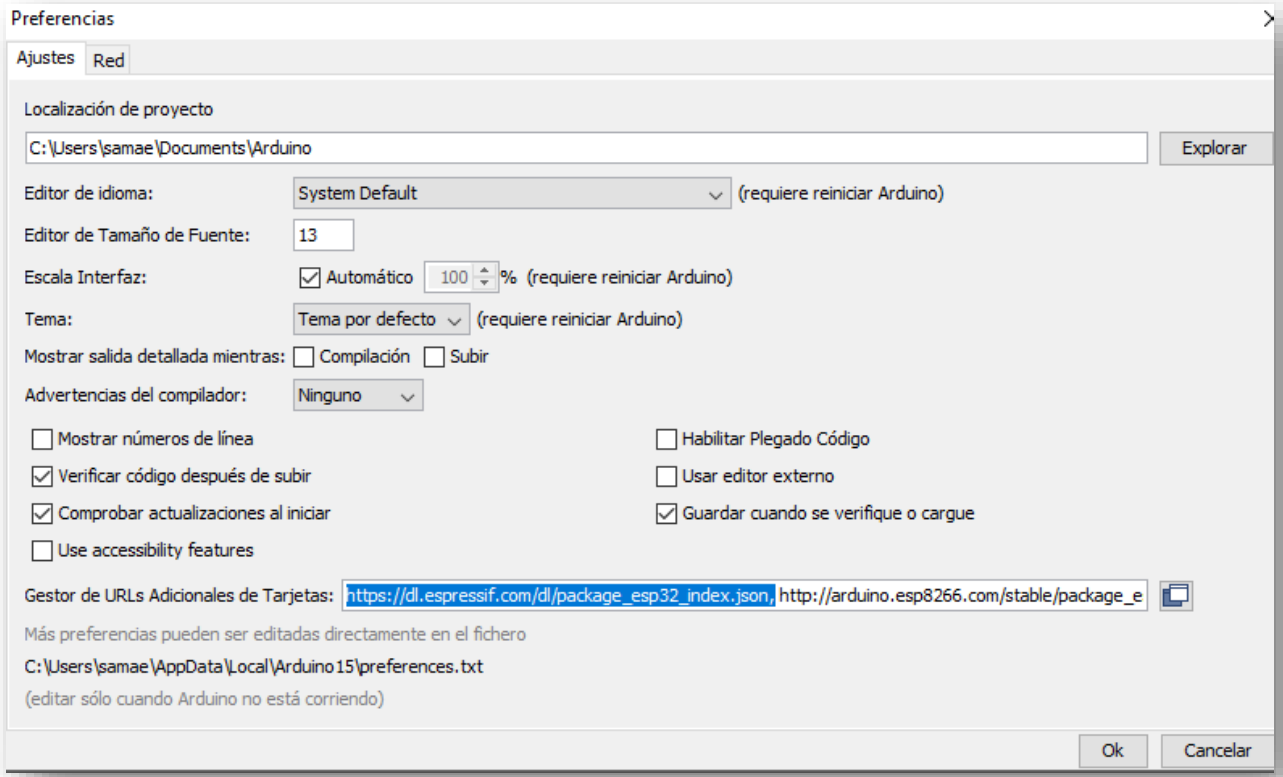
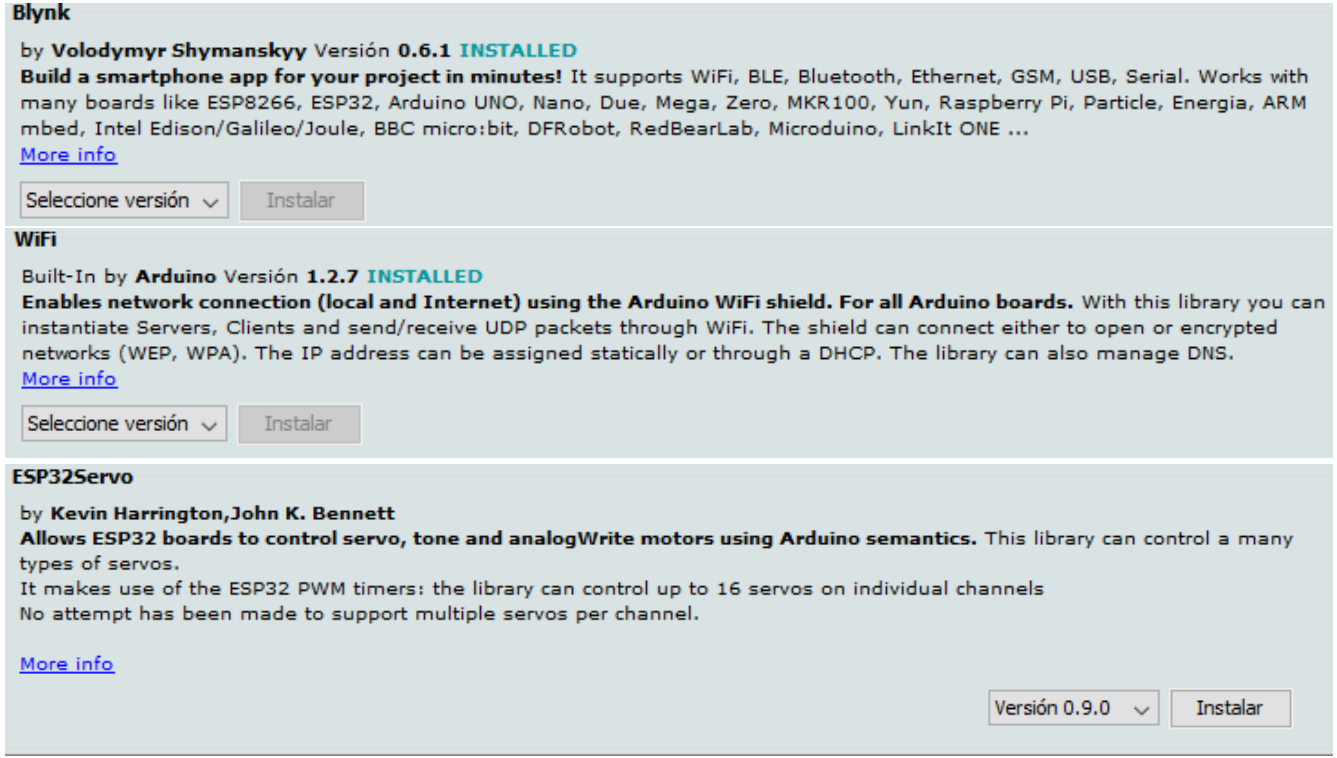
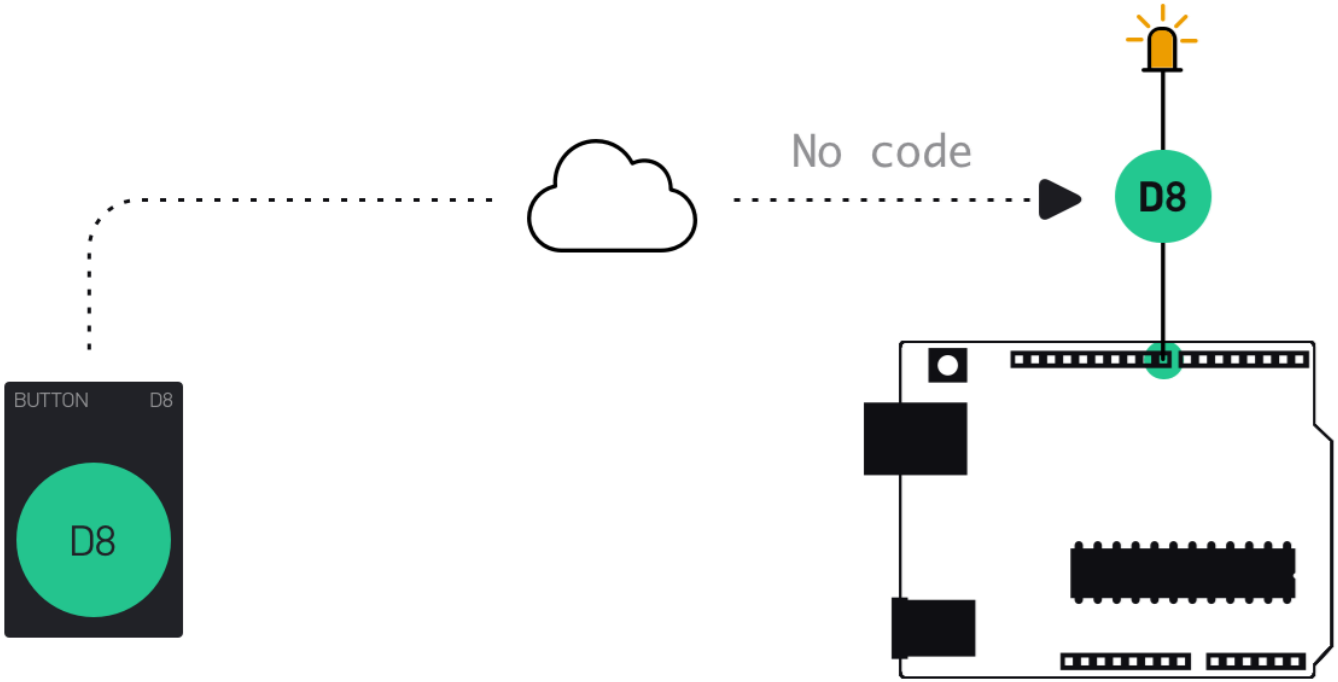


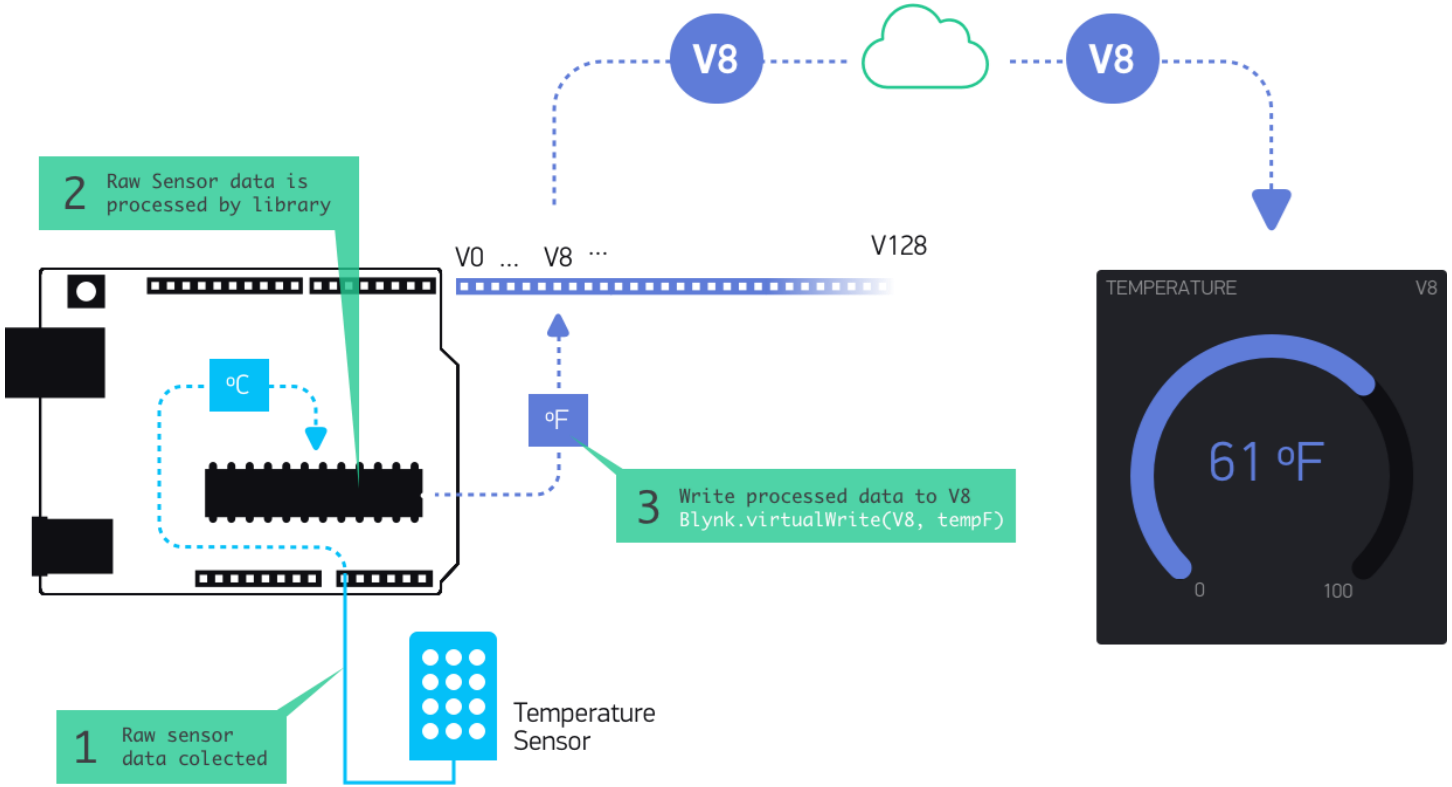
https://dl.espressif.com/dl/package_esp32_index.json

```
//Archivos de cabecera
#include <WiFi.h>
#include <WiFiClient.h>
#include <BlynkSimpleEsp32.h>
#include <ESP32Servo.h>


//Led de usuario del ESP32
#define LED 2

//Pin de entrada analógico
#define AI 34

//Token de la aplicación
char auth[] = "tJTDZhZdQTNAnXH0urINYGnZ_z0XAJSI";
```


Blynk
by Volodymyr Shymanskyy Versión 0.6.1 INSTALLED
Build a smartphone app for your project in minutes! It supports WiFi, BLE, Bluetooth, Ethernet, GSM, USB, Serial. Works with many boards like ESP8266, ESP32, Arduino UNO, Nano, Due, Mega, Zero, MKR100, Yun, Raspberry Pi, Particle, Energia, ARM mbed, Intel Edison/Galileo/Joule, BBC micro:bit, DFRobot, RedBearLab, Microduino, LinkIt ONE ...
More info
Seleccione versión
Instalar
WiFi
Built-In by Arduino Versión 1.2.7 INSTALLED
Enables network connection (local and Internet) using the Arduino WiFi shield. For all Arduino boards. With this library you can instantiate Servers, Clients and send/receive UDP packets through WiFi. The shield can connect either to open or encrypted networks (WEP, WPA). The IP address can be assigned statically or through a DHCP. The library can also manage DNS.
More info
Seleccione versión
Instalar
ESP32Servo
by Kevin Harrington,John K. Bennett
Allows ESP32 boards to control servo, tone and analogWrite motors using Arduino semantics. This library can control a many types of servos.
It makes use of the ESP32 PWM timers: the library can control up to 16 servos on individual channels
No attempt has been made to support multiple servos per channel.
More info
Versión 0.9.0
Instalar

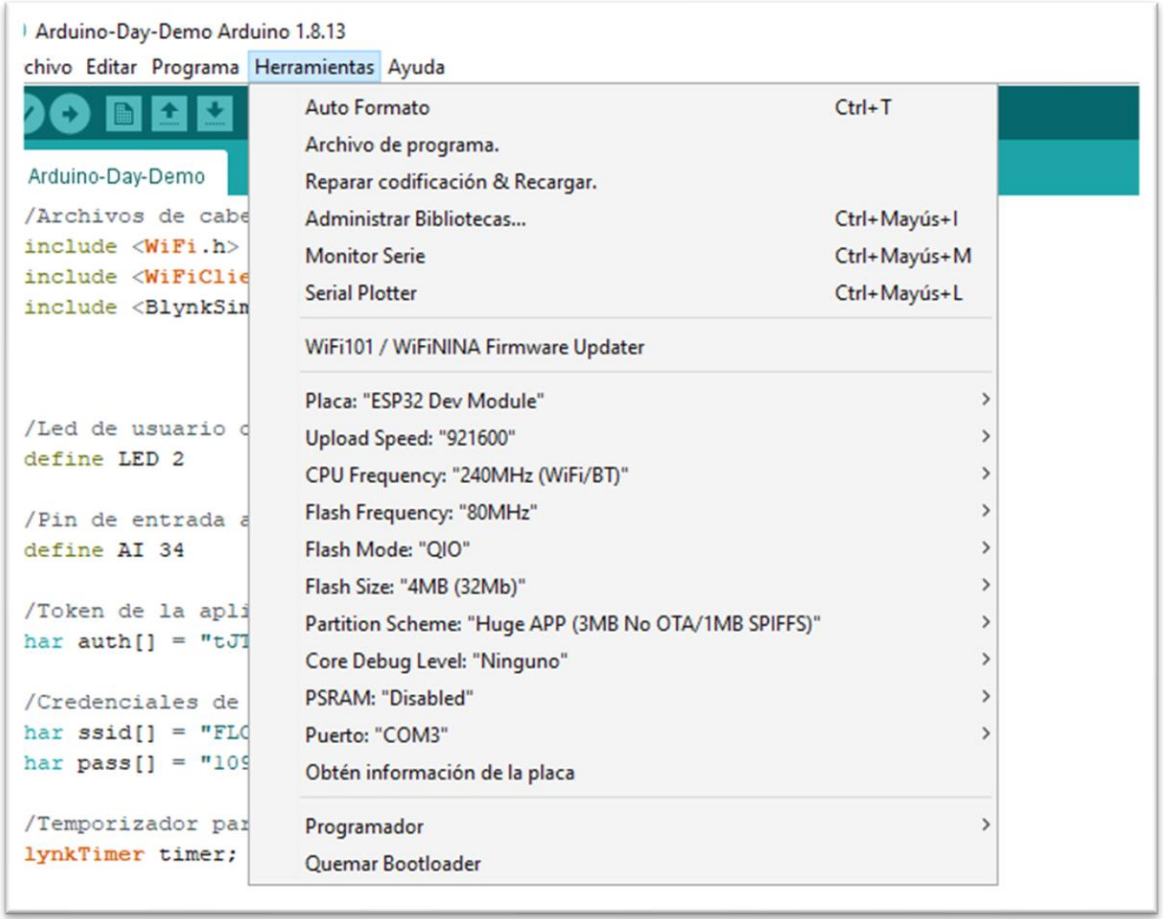


Fuente: http://help.blynk.cc/en/



Fuente: http://help.blynk.cc/en/

DEMOSTRACIÓN



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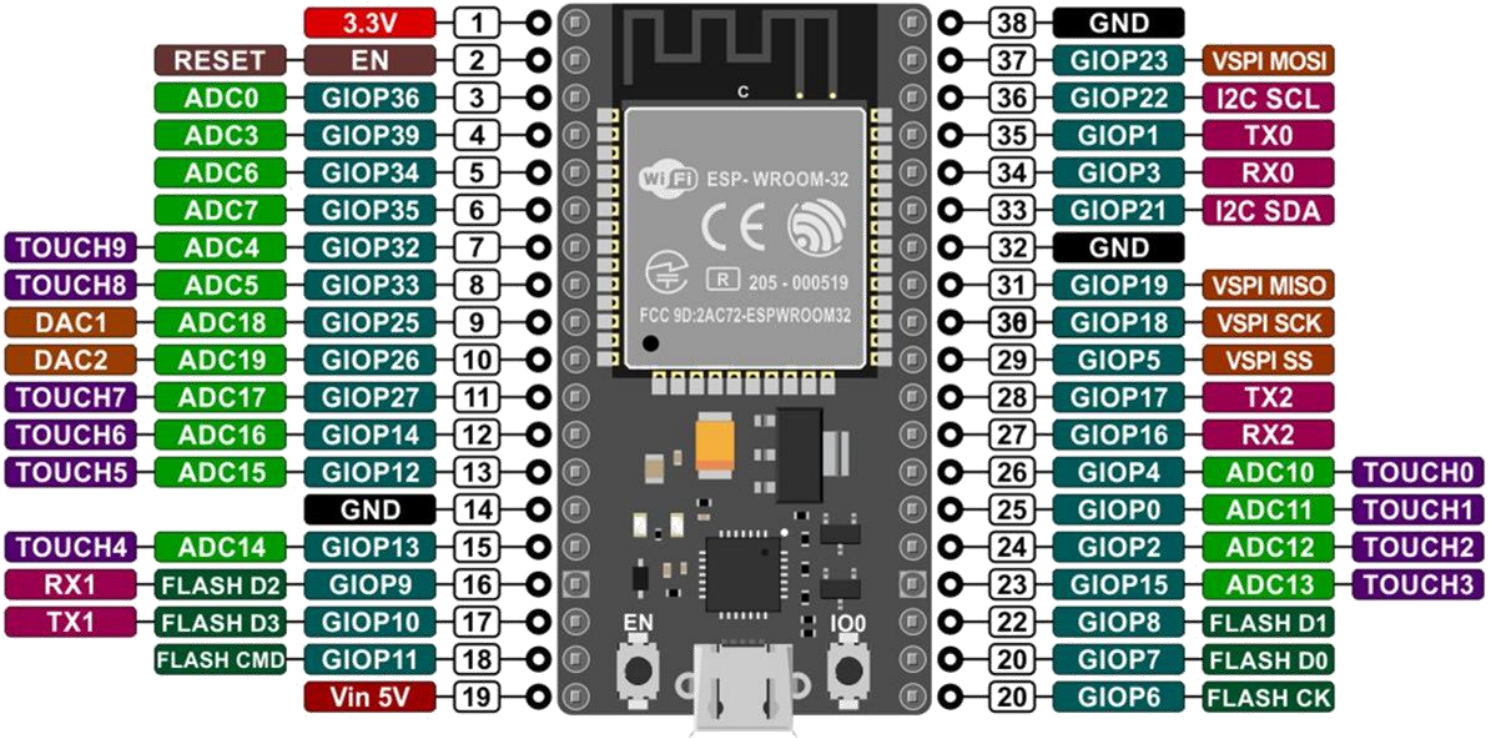

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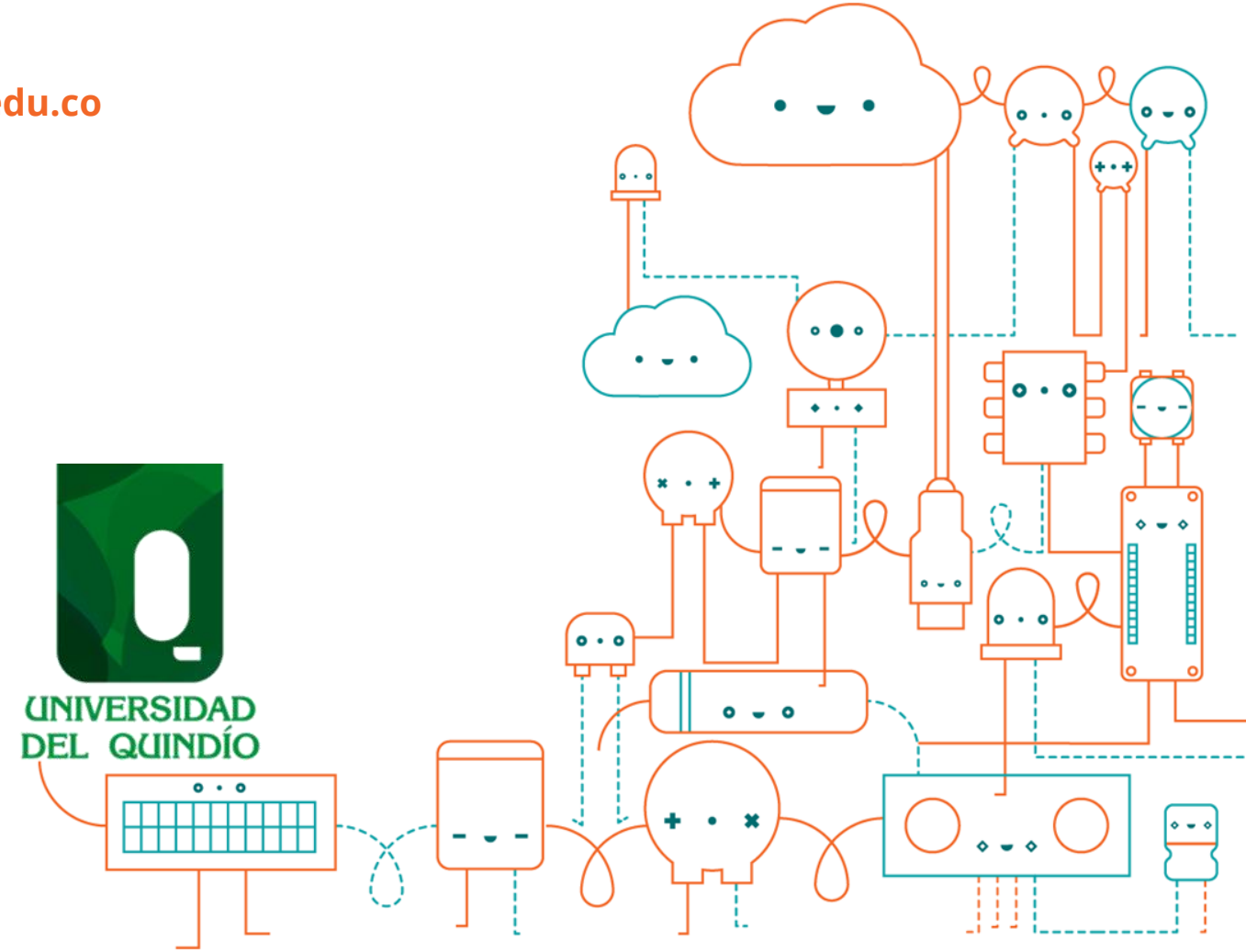
parrado@uniquindio.edu.co

Thank you!



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