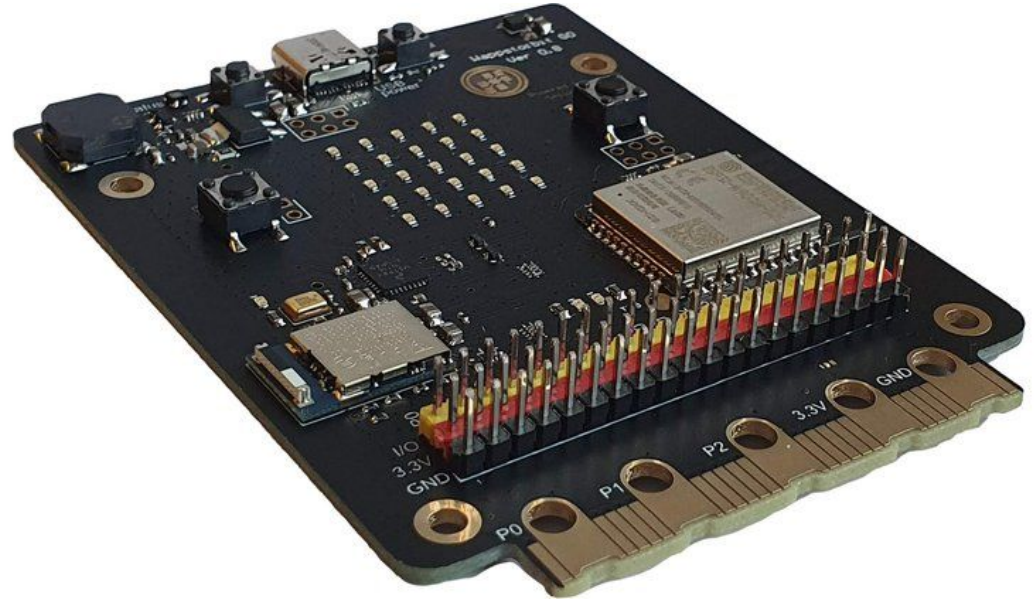


# Wappsto:bit GO

IoT made easy with ESP32 with  
an integrated microcontroller



# Getting started

For the full guide visit: [bit.wappsto.com/setup](https://bit.wappsto.com/setup)

1



Setup your Wappsto:bit using the Wappsto phone APP

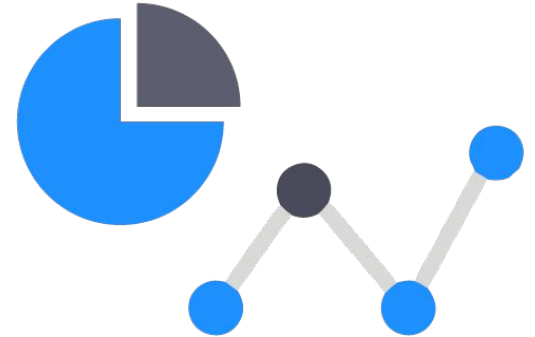
[Apple's App Store](#) | [Google Play](#)

2



Program in [MakeCode for micro:bit](#), using the official Wappsto extension

3



Control your device and view data on [Wappsto](#) or the Wappsto APP.

You can also set up personal dashboards and share data with your friends!

# What is Wappsto?

**Wappsto:bit** is the ideal DIY IoT tool for students and makers alike. Now a 10 year old can create and IoT device in 10 minutes - but a maker can take it to extreme depths due to it's flexibility.

**Wappsto:bit** is an extension board for the popular BBC micro:bit with a pre-configured and out-of-the-box cloud connection directly to Wappsto using Wi-Fi connectivity.

**Wappsto Dashboard** powered by Seluxit is a powerful IoT platform featuring an easily customizable Dashboard that makes visualizing live or historical data a breeze.

**Wappsto APP** for IOS and Android, lets you easily setup Wi-Fi on your IoT devices using Bluetooth. And lets you access and control all of your IoT devices on the go.

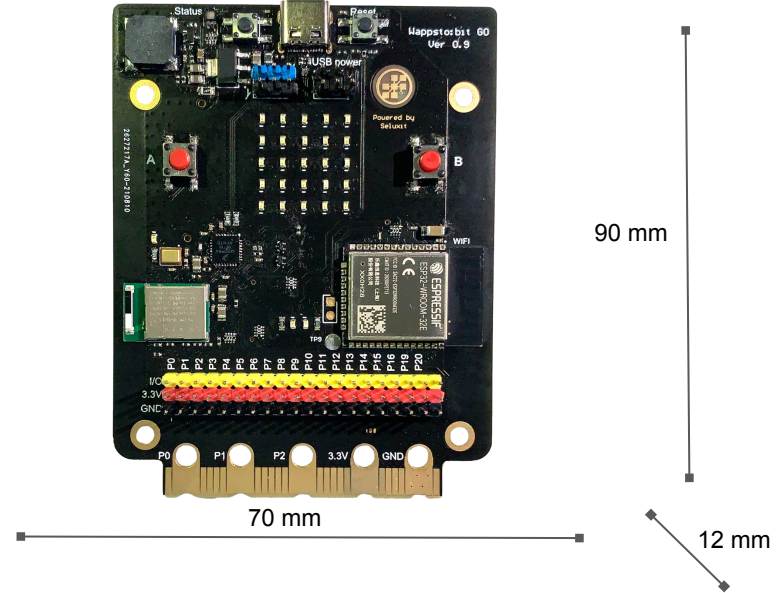


# In the box

Wappsto:bit in an antistatic bag



Wappsto:bit GO

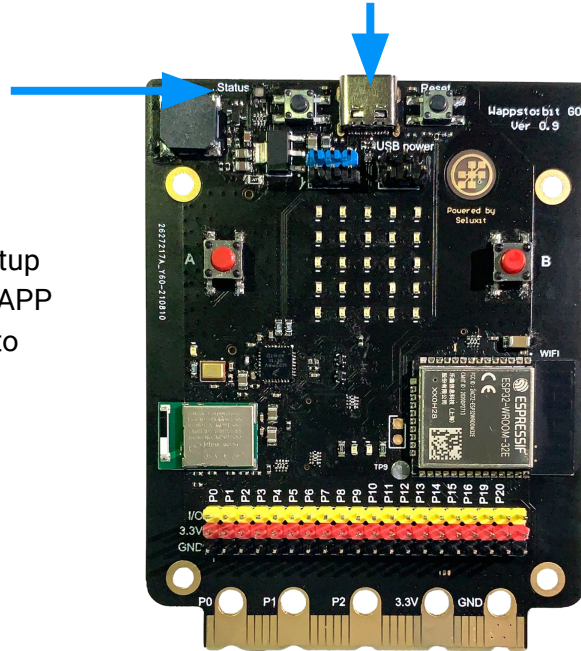


# Using the Wappsto:bit

The Wappsto:bit requires a 4.5-5.5V power supply via the USB-C port. You can use a wall socket, your computer, or a power bank.

## LED Status Indicator

- Off
- Starting
- Bluetooth on
- Wi-Fi: Ready for Wi-Fi setup through Wappsto APP
- Connected to Wappsto
- Updating firmware (only in Wi-Fi mode)



## Using with external sensors

Wappsto:bit GO will work with virtually all sensors with existing MakeCode for micro:bit extensions/drivers. They will however have to be fitted onto the Wappsto:bit using standard female DuPont jumper Cables.

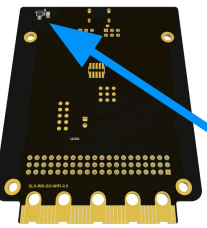
Pinheaders and Edge connector on the Wappsto:bit GO is similar to [BBC micro:bit pin layout](#)

**Avoid wet environments and dropping the Wappsto:bit**

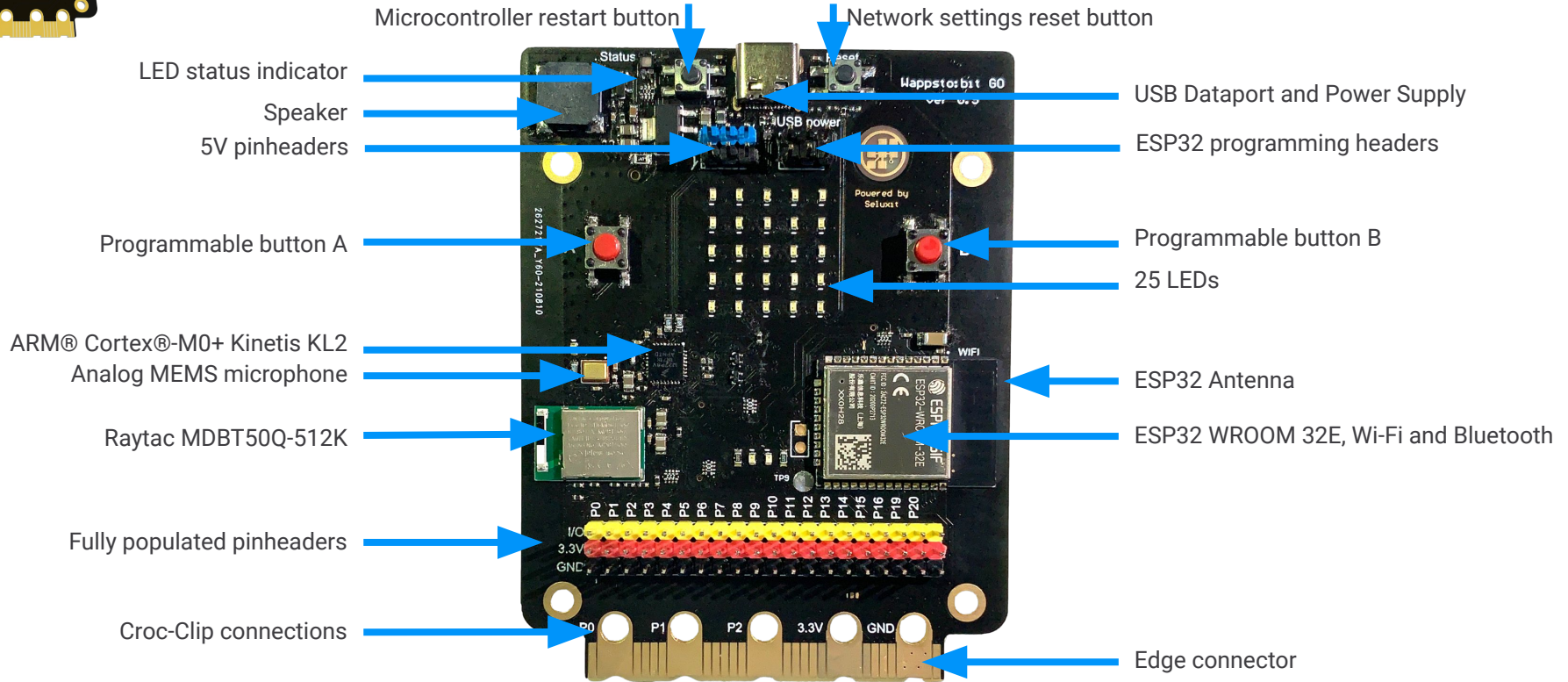


# Layout

## Wappsto:bit GO



On the back side:  
Accelerometer / magnetometer



# Firmware Features

## Wappsto:bit GO

- Program stable IoT projects in just minutes
- Works out of the box with pre-configured cloud connectivity
  - Onboard to Wi-Fi in just seconds using the Wappsto iOS or Android smartphone APP
- Easily programmed with Blocks, Javascript or Python using Microsoft MakeCode for micro:bit
- Access to Wappsto IoT platform with features:
  - Easy click-through dashboard setup
  - Live data dashboards
  - Data forwarding, sharing and extraction
  - Distributed and encrypted cloud
  - Wappsto Blocks APP that easily lets your devices interact with each other and the rest of the internet
- Access to Wappsto iOS or Android smartphone APP
  - View and control all devices on the fly
  - Easy onboarding of new devices via bluetooth
  - Available as source code on Github

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# Hardware Features

## Wapsto:bit GO

- Temperature Sensor
- Light sensor
- Sound sensor
- Magnetometer
- Accelerometer
- Compass
- 25 programmable LEDs
- Programmable A and B buttons
- Wi-Fi and Bluetooth connectivity
- 20 pin EDGE connector that allows for compatibility with micro:bit breakout boards
- 20 pinheaders for easy accessory attachment using dupont jumpers.
- Croc-clip connections for easy accessory attachment

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# Hardware Specification

## Wappsto:bit GO

- ESP32-WROOM-32E, Wi-Fi and Bluetooth module with built in antenna.
- 20 pin EDGE connector for accessories
- Fully populated pinheaders from GPIO pins
- Croc-clip connections for pins 0, 1 and 2, 1x 3.3V output and 1x GND
- 2 programmable buttons (A & B)
- Status LED, for indication of connection to Wappsto by Seluxit
- Button for resetting network settings.
- Button for restarting microcontroller
- USB-C power supply, operating voltage 4.5-5.5V
- Knowles SPU0410LR5H-QB Analog MEMS microphone
- NXP MKL27Z256VFM4 ARM® Cortex®-M0+ Kinetis KL2 Microcontroller, 256KB Flash
- Raytac MDBT50Q-512K Bluetooth 5.2 module based on nRF52833, 512KB Flash
- ST LSM303AGRTR IMU ACCELEROMETER / MAGNETOMETER

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# Wappsto and Connectivity pricing

For more information visit: [www.seluxit.com/Pricing](https://www.seluxit.com/Pricing)

## We've got you covered with a great free plan!

As long as you have less than 10 devices on Wappsto

You will get **1.000.000 measurements** every month that you decide how to distribute between storage and traffic.

If you wish to send a lot of messages, but store them only shortly or vice versa it's all up to you!

## What if I run out of measurements?

If you run out of measurements, we'll stop the flow for you.

Then you can either wait until next month for more free measurements, or purchase additional.

If you need more measurements, then you're probably a professional user and will have to pay a subscription fee, depending on your usage.



# Data and Safety

For more information visit: [www.seluxit.com/Data](https://www.seluxit.com/Data)

## **One email to rule it all**

When you sign up for free Wappsto services, all you need to share is an email address.

If you wish to upgrade your account, our payment partners will of course need to know a bit more about you.

## **Nothing shared without your consent and it's all anonymised**

If you wish to engage with other users on Wappsto and perhaps share your data, everything is done using unique identifiers (UUID), meaning your identity will be kept anonymous. And you can always withdraw your sharing consent.

## **At Seluxit we are serious about data security and Data Ethics**

- read more about our data ethics principles on

<https://www.seluxit.com/data>

- read more about your data privacy on

<https://www.seluxit.com/legal/privacy-notice/>