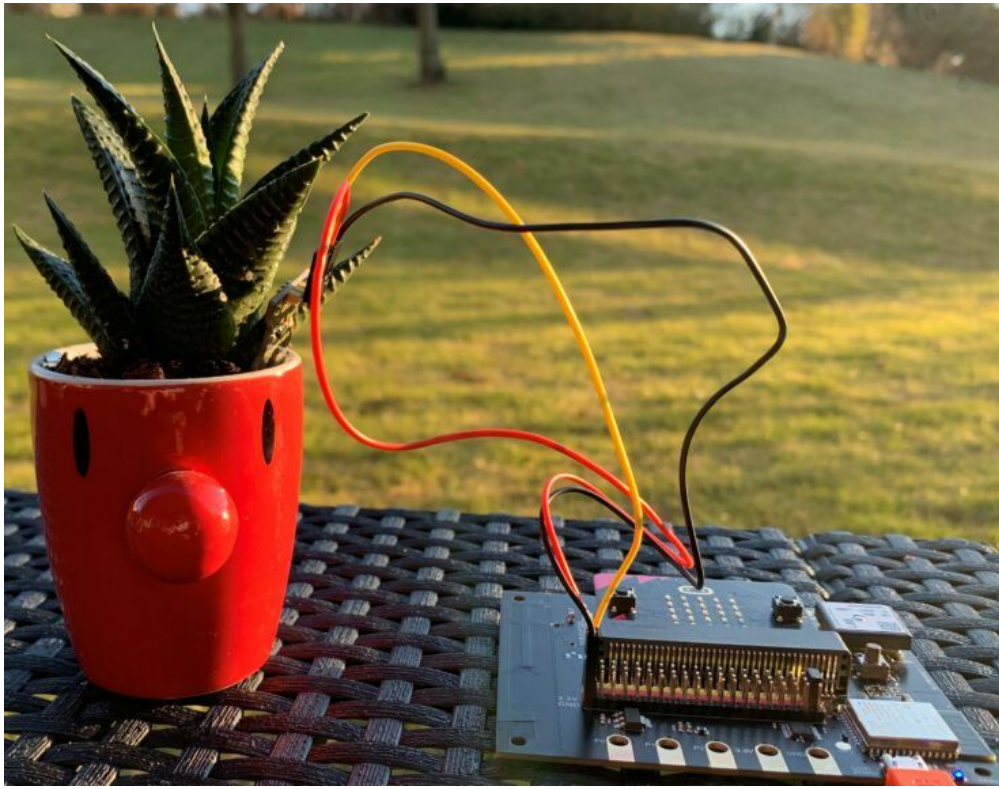
wappsto

by Seluxit

Wappsto:bit

Making IoT Child's Play



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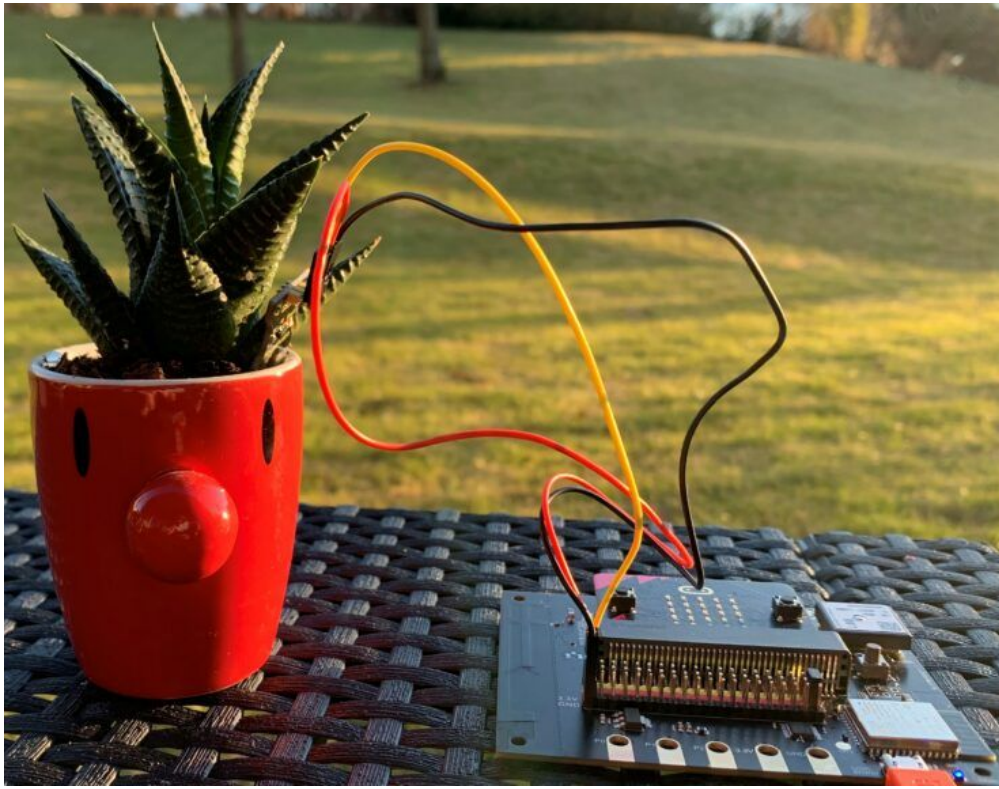


What is Wappsto?

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-out-of-the-box cloud connection directly to Wappsto using either 5G NB-IoT or Wi-Fi connectivity.

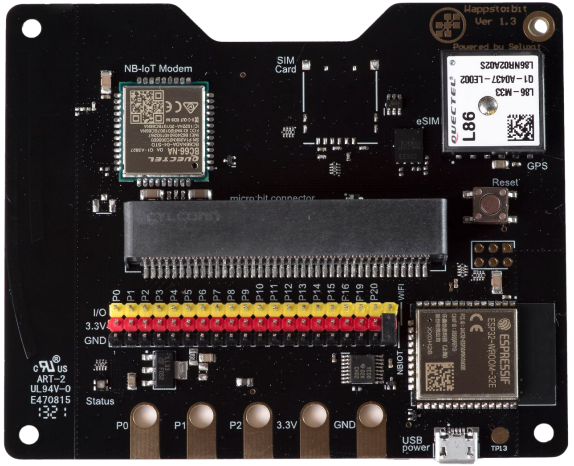
Wappsto Dashboard powered by Seluxit is a powerful IoT platform featuring an easily customizable Dashboard that makes visualizing live or historical data a breeze.

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

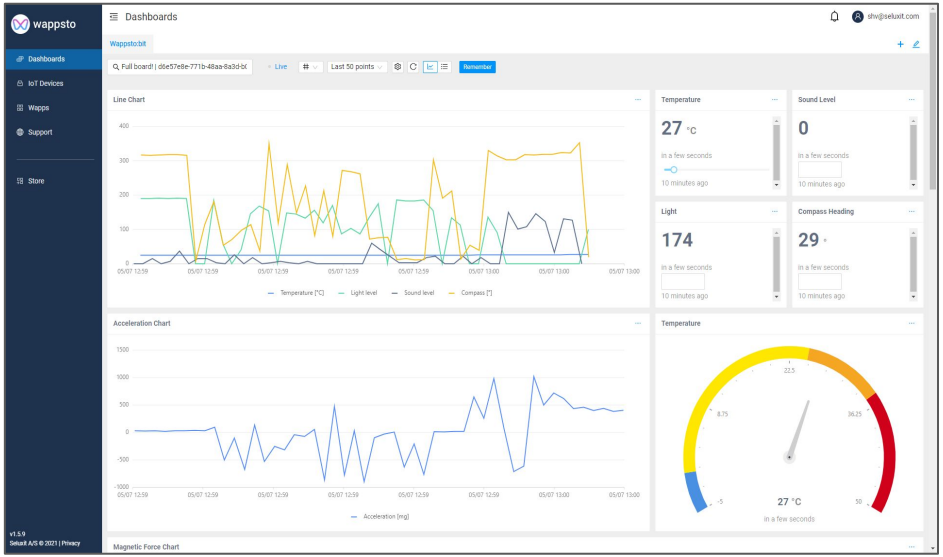
Wappsto:bit NB-IoT+



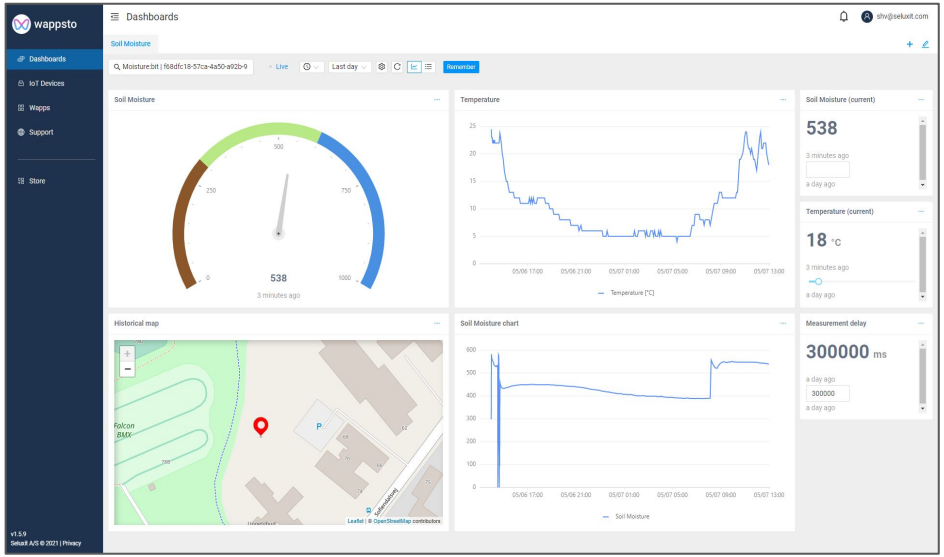
Wappsto Dashboard

Learn to set up a Dashboard: www.seluxit.com/Academy
For more information visit: www.Wappsto.com

Use a standard Dashboard



Or build your own Dashboard from Scratch



Make it Matter | Make it Easy | Make an Impact

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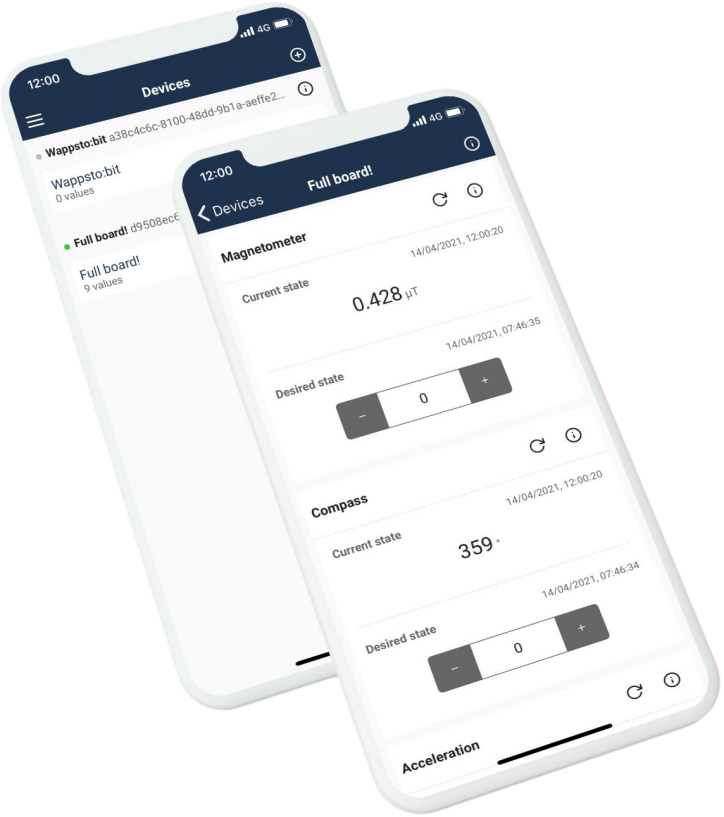
Wappsto App

For more information visit: www.Wappsto.com



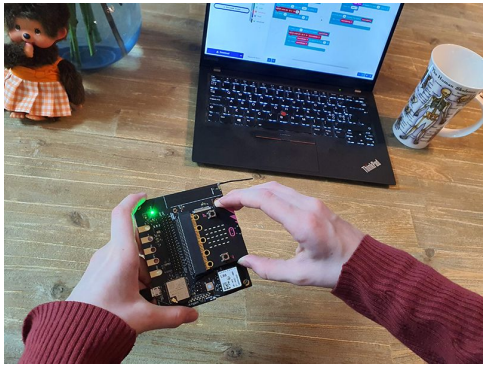
The Wappsto Mobile APP lets you access and control all of your connected IoT devices on the go.

It makes it easy as 1-2-3 to onboard new devices either by scanning a QR code or by Bluetooth.

Getting started

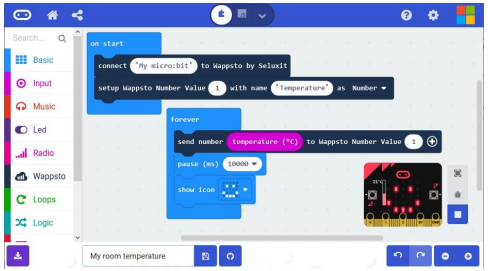
For more information visit: www.seluxit.com/Wappstobitsetup

1



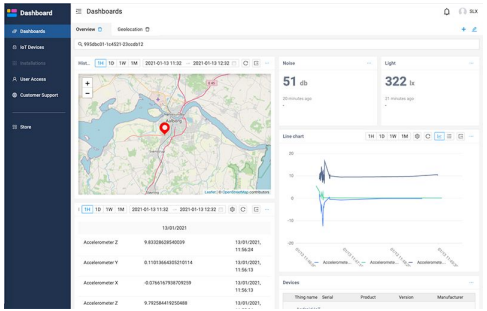
Power up and register your Wappsto:bit to Wappsto using either Wappsto.com or the Wappsto App

2



In micro:bit MakeCode, use the Wappsto extension blocks to configure your IoT connectivity so your program can go online

3



You now automatically get data in the point-and-click configurable Dashboard in Wappsto by Seluxit including the Wappsto Mobile App (Apple's App Store | Google Play)

Step by Step Guide

For more information visit: www.seluxit.com/Wappstobitsetup

Wappsto

Register on Wappsto on your preferred platform:

- IOS / Apple App Store
- Android / Google Play Store
- Browser / Wappsto.com

Access your data and control your devices on Wappsto:

A - From Dashboard:

1. In the right side, press the plus button (+) and ADD Dashboard
2. Choose a template e.g. Wappsto:bit or a blank Dashboard to create a new Dashboard
3. Use the buttons in the right side to modify your Dashboard and add widgets

Or

B - From IoT Devices:

1. Click the name of the Device you wish to access data for and unfold the menu
2. For further details or to show logs / graphs, press the three dots (...) in the right side of any value.

Connect Wappsto:bit to Wappsto

IOS / Android NB-IoT:

1. Open the Wappsto APP and log in with your Wappsto credentials
2. Press top right plus button (+)
3. ADD via QR code (UUID)
4. Scan the QR code on the backside of your Wappsto:bit and confirm.

IOS / Android Wi-Fi:

1. Follow step 1-2 above
3. Add and configure Wi-Fi
4. Select your IoT Device
5. Select your Wi-Fi and input your Password and confirm

Browser:

1. Open Wappsto.com and log in with your Wappsto Credentials
2. Press IoT Devices in the left side of the webpage
3. Press Add an IoT device in the right side of the webpage
4. Either use your webcam to scan the QR code on the backside of your Wappsto:bit or insert it manually and confirm
5. Configure Wi-Fi with the Wappsto ...More block in Microsoft MakeCode

Programming and using

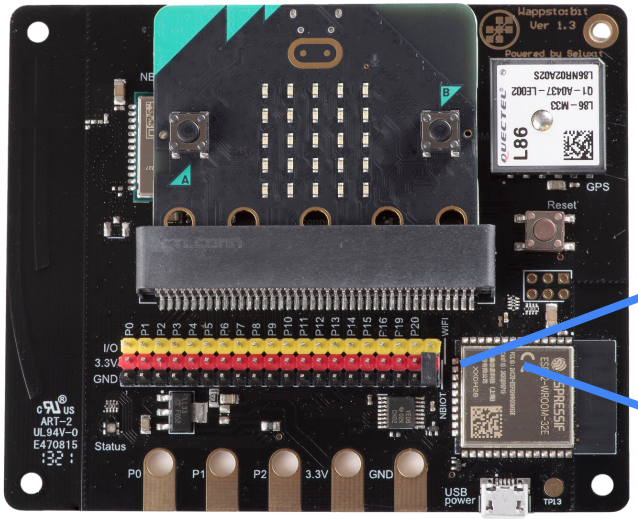
Coding on Microsoft MakeCode in browser:

1. Enter the Microsoft MakeCode Website
   - Microsoft MakeCode for micro:bit
2. Start or open a project and name it
3. In the top right corner, press the settings cogwheel
4. Press Extensions
5. Search for Wappsto
6. Click and download extension
7. Get coding! You can always find cool examples on the Wappsto:bit Academy
8. Flash your micro:bit using a USB to Micro USB cable and unplug it from your laptop

Plug your micro:bit into the Wappsto:bit:

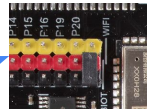
1. Ensure the Wappsto:bit is powered correctly and online
2. Unplug your Wappsto:bit from its power source
3. Plug the micro:bit firmly into the Wappsto:bit facing outwards (LEDS towards you)
4. Plug your Wappsto:bit into its power source and let it boot
5. Congratulations, you can now access your data on Wappsto!

Using the Wappsto:bit

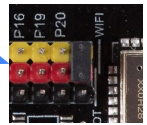


Changing connectivity mode by moving the jumper:

NB-IoT mode (red & black)



Wi-Fi mode (yellow & red)



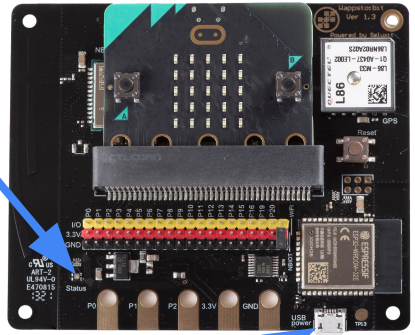
LED Indicator

- Off
- Starting
- Bluetooth on

NB-IoT: Connecting

Wi-Fi: Ready for Wi-Fi setup through Wappsto APP

- Connected to Wappsto
- Updating firmware (only in Wi-Fi mode)



1. Make sure the micro:bit is powered off before plugging in, for best results, power off Wappsto:bit too
2. Insert the BBC micro:bit firmly, with the LEDS and Buttons facing outwards from the Wappsto:bit

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

Avoid wet environments and dropping the Wappsto:bit

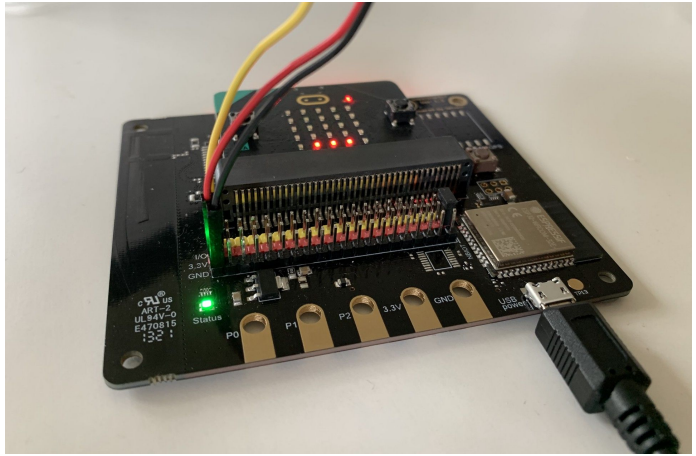
It is not possible to power the Wappsto:bit through the micro:bit.

Using External Sensors

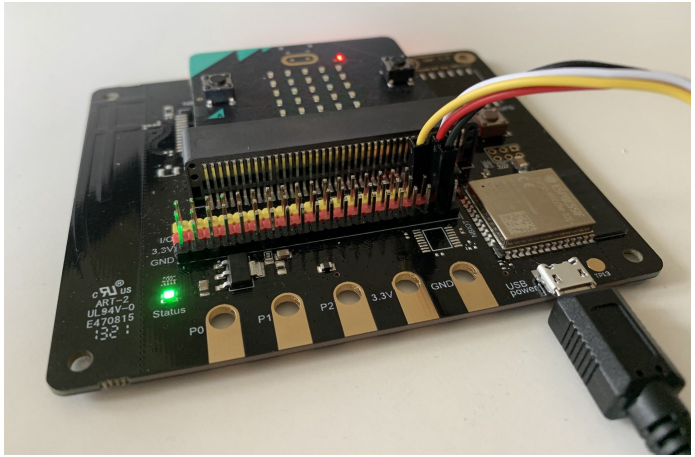
Wappsto:bit will work with virtually all 3,3V sensors compatible with the BBC micro:bit.
They will however have to be fitted onto the Wappsto:bit using standard female DuPont jumper Cables.

Pinheaders on the Wappsto:bit correspond 1:1 with the [BBC micro:bit pin layout]

Sensor attached on P0 + 3,3V & GND

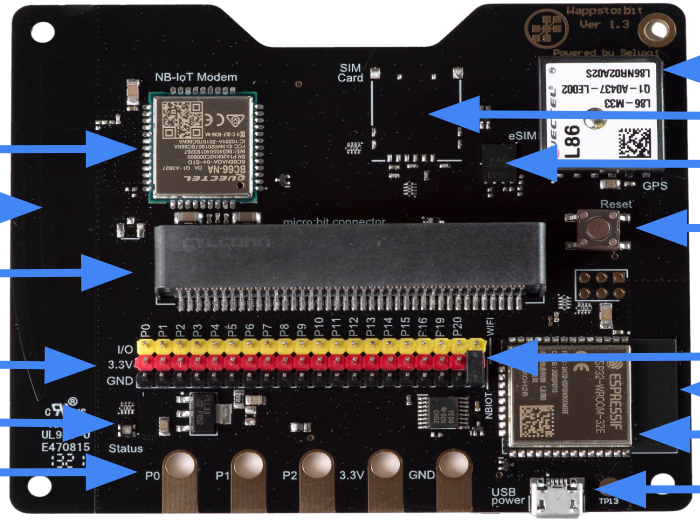


Sensor attached on 19 & P20 (I2C pins) + 3,3V & GND



Layout and Dimensions

Wappsto:bit NB-IoT+



Quectel BC66-NA NB-IoT Modem

NB-IoT Antenna

Edge connector for micro:bit

Fully populated pinheaders

LED status indicator

Croc-Clip connections

Quectel L86 GPS

SIM card slot

eSIM Slot

Network settings reset button

Wi-Fi / NB-IoT hard wired jumper

ESP32 Antenna

ESP32 WROOM 32E, Wi-Fi and Bluetooth

Micro USB power supply (4.5-5.5V)

Note: other models feature fewer components

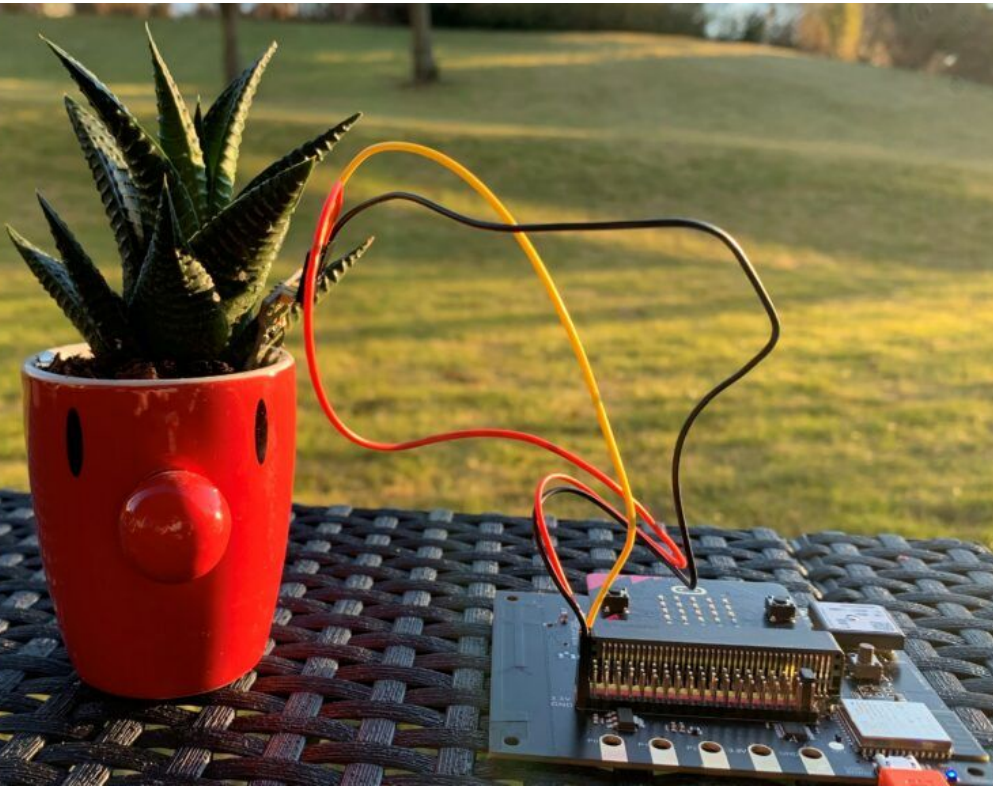
Hardware Specification

Wappsto:bit Basic	Wappsto:bit NB-IoT	Wappsto:bit NB-IoT+
• Edge-connector for micro:bit • ESP32-WROOM-32E, Wi-Fi and Bluetooth module with built in antenna. • Fully populated pinheaders from micro:bit GPIO pins • Croc-clip connections, micro:bit IO pins 0, 1 and 2, 1x 3.3V output and 1x GND • Status LED, for indication of connection to Wappsto by Seluxit • Button, for resetting network settings. • Micro USB power supply, operating voltage 4.5-5.5V	• Edge-connector for micro:bit • ESP32-WROOM-32E, Wi-Fi and Bluetooth module with built in antenna. • Quectel BC66-NA NB-IoT Modem with sim slot • Antenna optimized for: Narrowband IoT (LTE Cat NB1) Band B3 : Uplink 1710-1785 Mhz, Downlink 1805-1880 MHz Band B20: Uplink 832-862 Mhz, Downlink 791-821 MHz • Fully populated pinheaders from micro:bit GPIO pins • Croc-clip connections, micro:bit IO pins 0, 1 and 2, 1x 3.3V output and 1x GND • Status LED, for indication of connection to Wappsto by Seluxit • Button, for resetting network settings. • Micro USB power supply, operating voltage 4.5-5.5V	• Edge-connector for micro:bit • ESP32-WROOM-32E, Wi-Fi and Bluetooth module with built in antenna. • Quectel BC66-NA NB-IoT Modem with SIM and eSIM slot • Antenna optimized for: • Narrowband IoT (LTE Cat NB1) • Band B3 : Uplink 1710-1785 Mhz, Downlink 1805-1880 MHz • Band B20: Uplink 832-862 Mhz, Downlink 791-821 MHz • Quectel L86 GPS Module • Fully populated pinheaders from micro:bit GPIO pins • Croc-clip connections, micro:bit IO pins 0, 1 and 2, 1x 3.3V output and 1x GND • Status LED, for indication of connection to Wappsto by Seluxit • Button, for resetting network settings. • Micro USB power supply, operating voltage 4.5-5.5V

Terms and Conditions: Product Delivery Terms & Conditions: Product Supply Terms and Conditions, Cloud Terms & Conditions: Cloud Solution Terms and Conditions, Seluxit IoT Cloud Pricing: Seluxit IoT Cloud Pricing, Seluxit General Privacy Notice: Seluxit Privacy Notice

Wappsto and Connectivity pricing

For more information visit: 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.

Make your Wappsto:bit mobile with NB-IoT!

40.000 measurements a month starting at 2,50 EUR.

Data and Safety

For more information visit: 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/