



**THE THINGS
N E T W O R K
Z A R A G O Z A**

Introducción a TTN / Taller construcción nodo

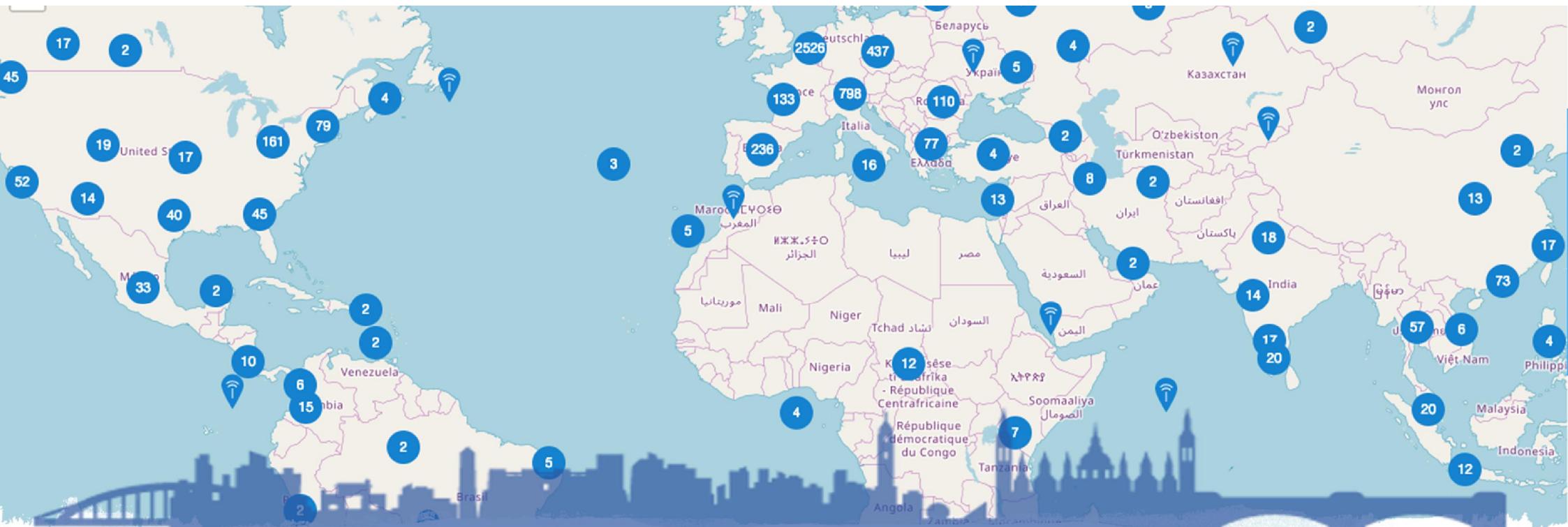
Zaragoza, 5 de junio de 2019

Zaragoza Activa | Remolacha HackLAB

Jorge Alba
jorgealba.es@gmail.com
[@_jorgealba](https://twitter.com/_jorgealba)

Rodolfo Artigas
r.artigas@gmail.com
[@rartigasv](https://twitter.com/rartigasv)





The Things Network: Misión

Crear una red IoT descentralizada y tecnológicamente independiente, en la que los usuarios son a la vez los propietarios y los operadores del sistema

Wienke Giezeman y Johan Stokking

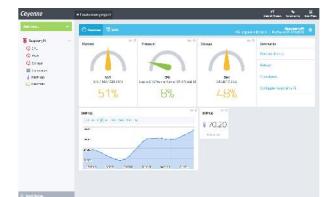
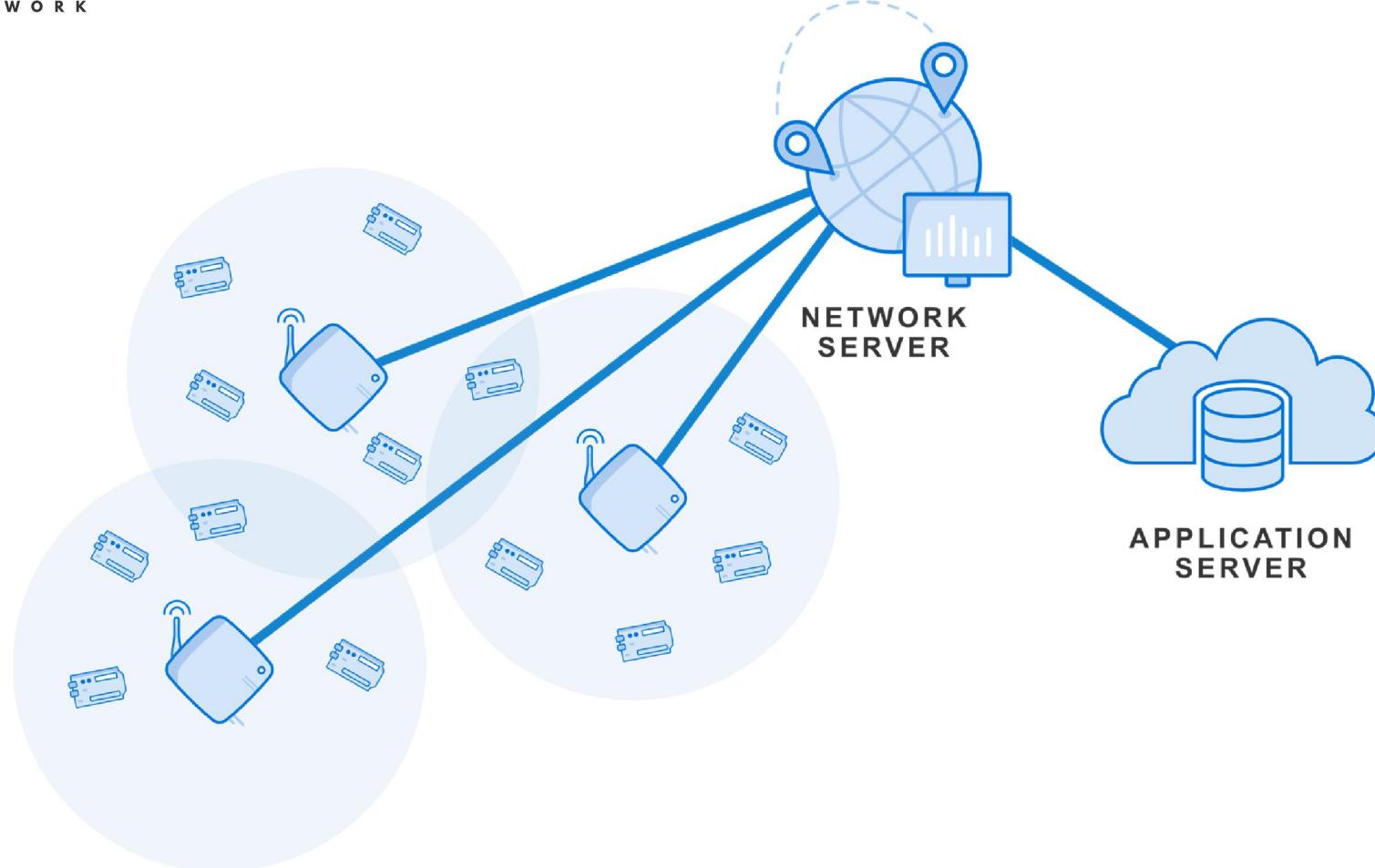
Amsterdam, verano 2015

65.000 miembros

6.300 gateways

137 países





Sofia 

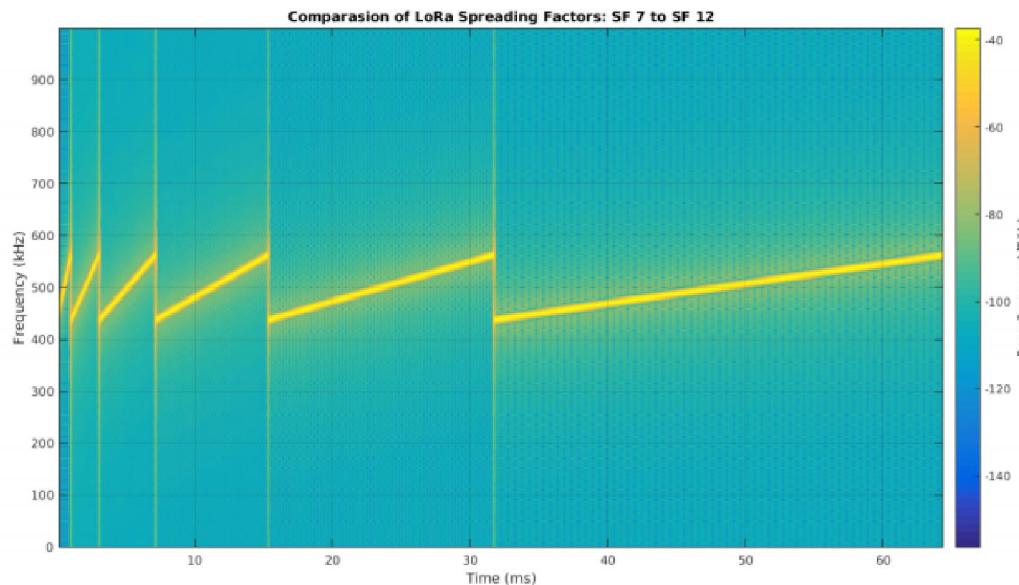


LoRa

- LoRa → Tipo modulación radiofrecuencia. Semtech
- LoRaWAN → Protocolo de red
- Alta tolerancia interferencias y sensibilidad recepción
- Long Range & Low Power
- Banda ISM, 868 mhz en Europa
- Uso libre y gratuito, con condiciones
 - 25 mW
 - Uso 1% del tiempo
- Penetración en edificios
- Largo alcance



SPREAD FACTOR SF



Spreading Factor	Chips/symbol	SNR limit	Time-on-air (10 byte packet)	Bitrate
7	128	-7.5	56 ms	5469 bps
8	256	-10	103 ms	3125 bps
9	512	-12.5	205 ms	1758 bps
10	1024	-15	371 ms	977 bps
11	2048	-17.5	741 ms	537 bps
12	4096	-20	1483 ms	293 bps

<http://www.techplayon.com/lora-link-budget-sensitivity-calculations-example-explained/>

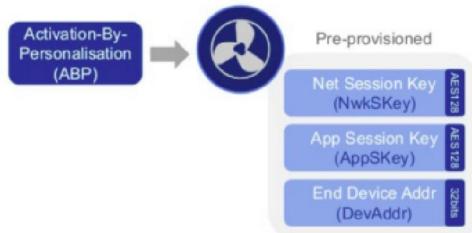


ABP VS OTA

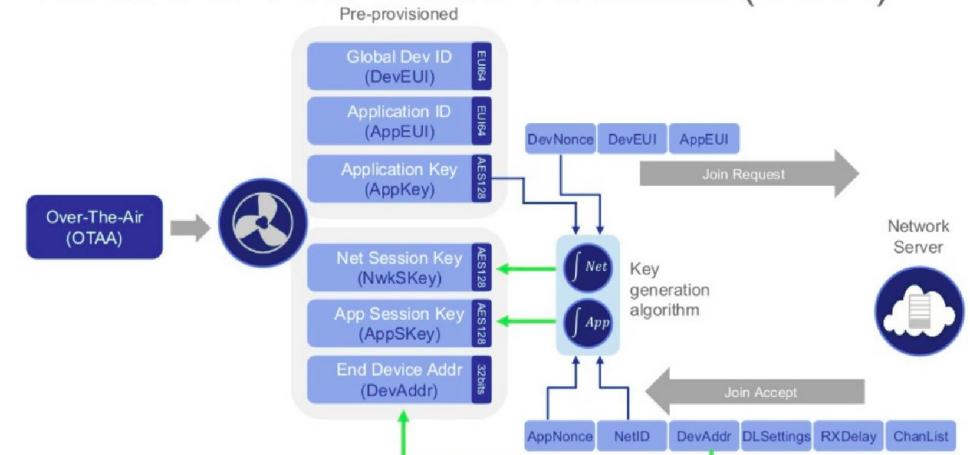
LoRaWAN Activation-By-Personalisation (ABP)

ABP pre-provisions keys and device address

Join procedure is bypassed



LoRaWAN Over-The-Air Activation (OTAA)





Ground breaking world record! LoRaWAN packet received at 702 km (436 miles) distance

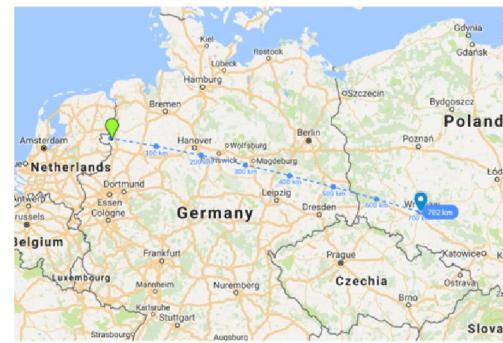
With the rise of novel wireless technologies, we surprise ourselves over and over again of what these technologies are capable of. LoRa has been around now for more than 2 years and people all over the planet are excited about its immense distance it can bridge while consuming extremely little energy.

During the past two years, many have tried to set world records on the maximum distance a data packet can travel. Ideal circumstances are found by climbing high buildings, mountains, or by releasing helium balloons up in the air reaching for higher altitudes. [Andreas Spiess](#) from Switzerland became famous for his ground to ground connection of 212 km and the Dutch company SODAQ started with releasing helium balloons, resulting in a stunning 354 km from an altitude of almost 15 km.

On Saturday 26th of August, a weather balloon was launched during the [Koppeling](#) event, an annual grassroots festival about peer production and free/libre alternatives for society, in Amersfoort, The Netherlands. In connection with the citizen science project [Meet je stad!](#), we wanted to investigate what we could measure higher up in the atmosphere using simple and cheap sensors. Additionally, we tested a new bridge between The Things Network and [habhub.org](#) - a high-altitude balloon tracking site - written by Bertrik Sikken ([TTNHABBridge](#)).



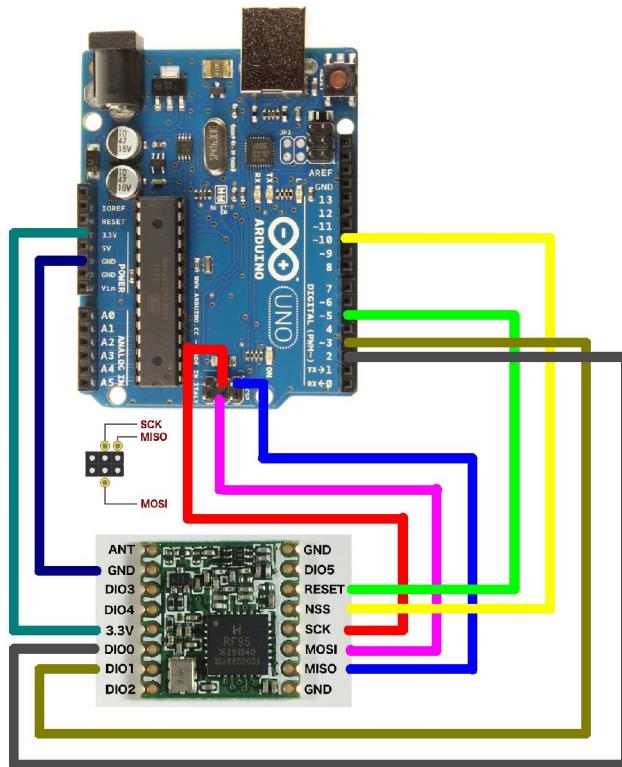
The sounding balloon was filled with helium and a small, lightweight node connected to The Things Network was attached. Apart from the LoRa radio, antenna and GPS module, a pressure, temperature, luminosity, infrared thermopile and UV/A/B light sensor were attached. It took the balloon almost 3 hours to ascend to an altitude of 38.772 km (24.1 miles, or 127204.7 feet). At this height, a single packet sent from the node was received by 148 different gateways connected to The Things Network. One of the gateways reached during the flight is located in Wrocław, Poland. By then, the balloon was flying over Osterwald in Germany, just across the German border from The Netherlands. A distance of 702.675km was reached by using only 25mW (14dBm) of transmitting power, roughly 40 times smaller than a mobile phone can use. Find it hard to believe? Have a look at the [results](#) and [raw data](#) (with 498 data points in total).



To make sure the gateway was actually located at the right coordinates, the antenna was tracked down. As it turns out, it exists! A Kerlink, owned by the company Thaumatec. The gateway is located at 30 meters height, in the south eastern part of Wrocław.



* <https://www.thethingsnetwork.org/article/ground-breaking-world-record-lorawan-packet-received-at-702-km-436-miles-distance>



Arduino + módulo LoRa

=

NODO



AELORA

[www.aelora.nl](http://wwwaelora.nl)



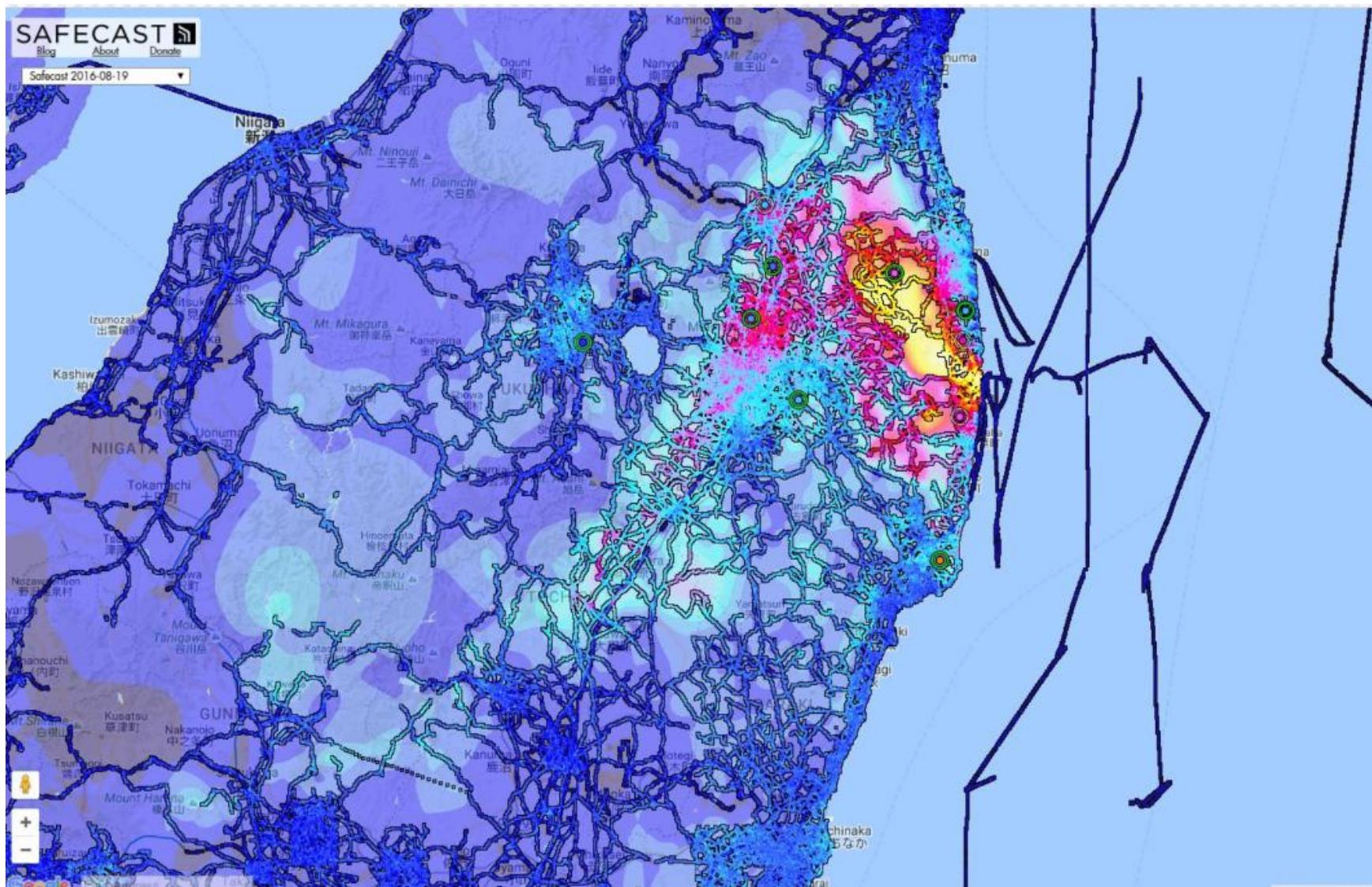


BORBORA – CHILDREN AIR QUALITY

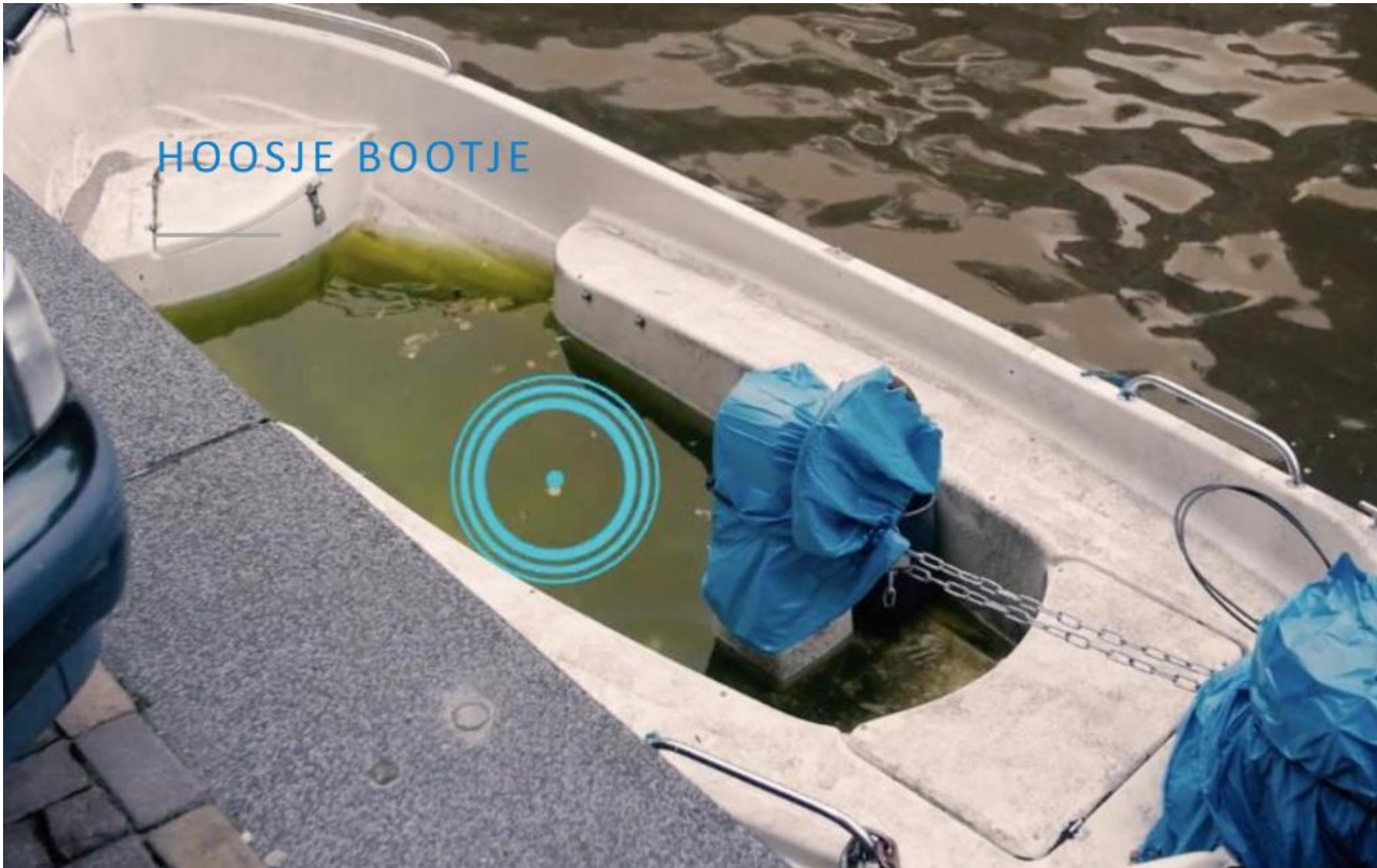
www.waag.org

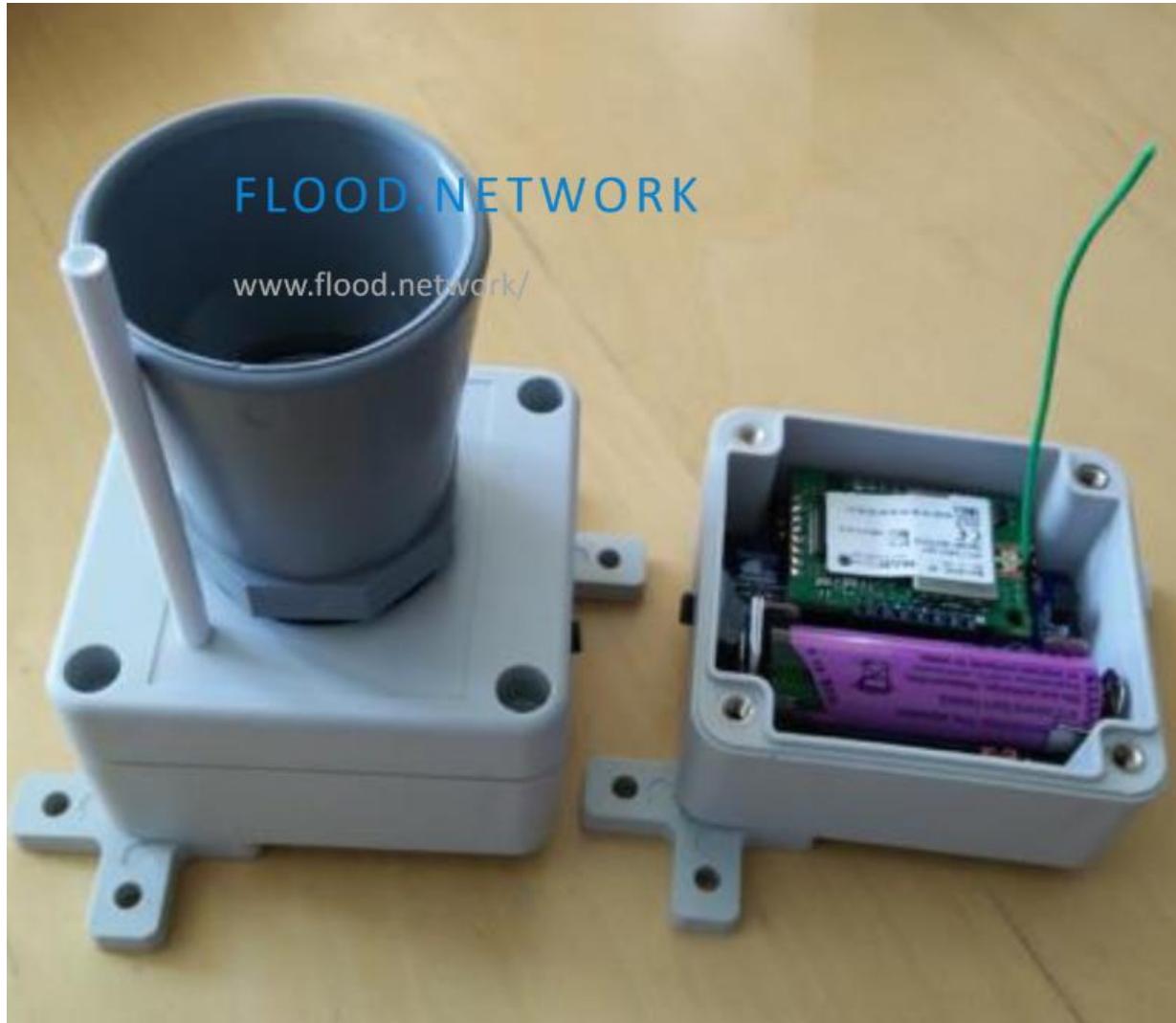






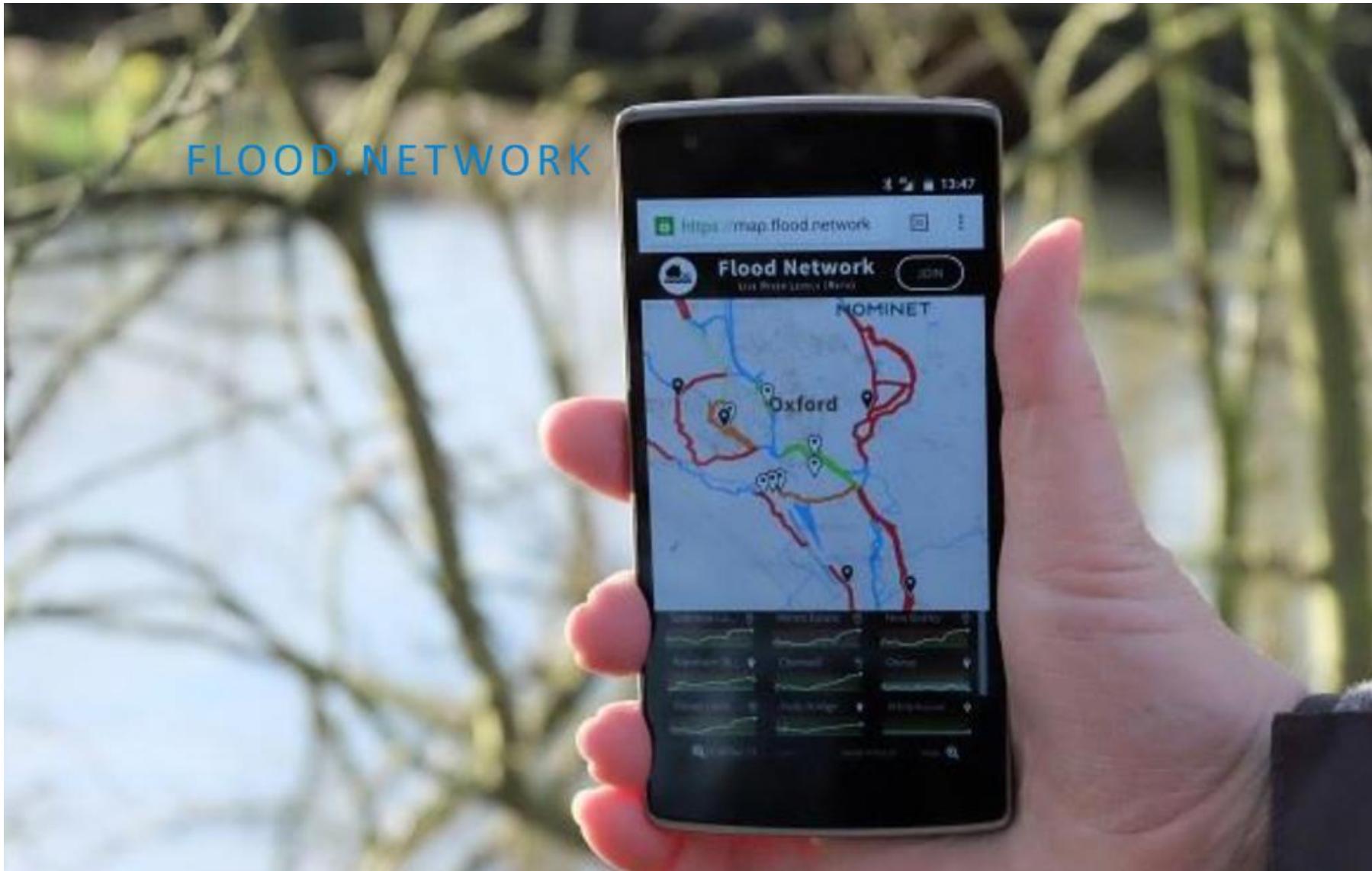
HOOSJE BOOTJE







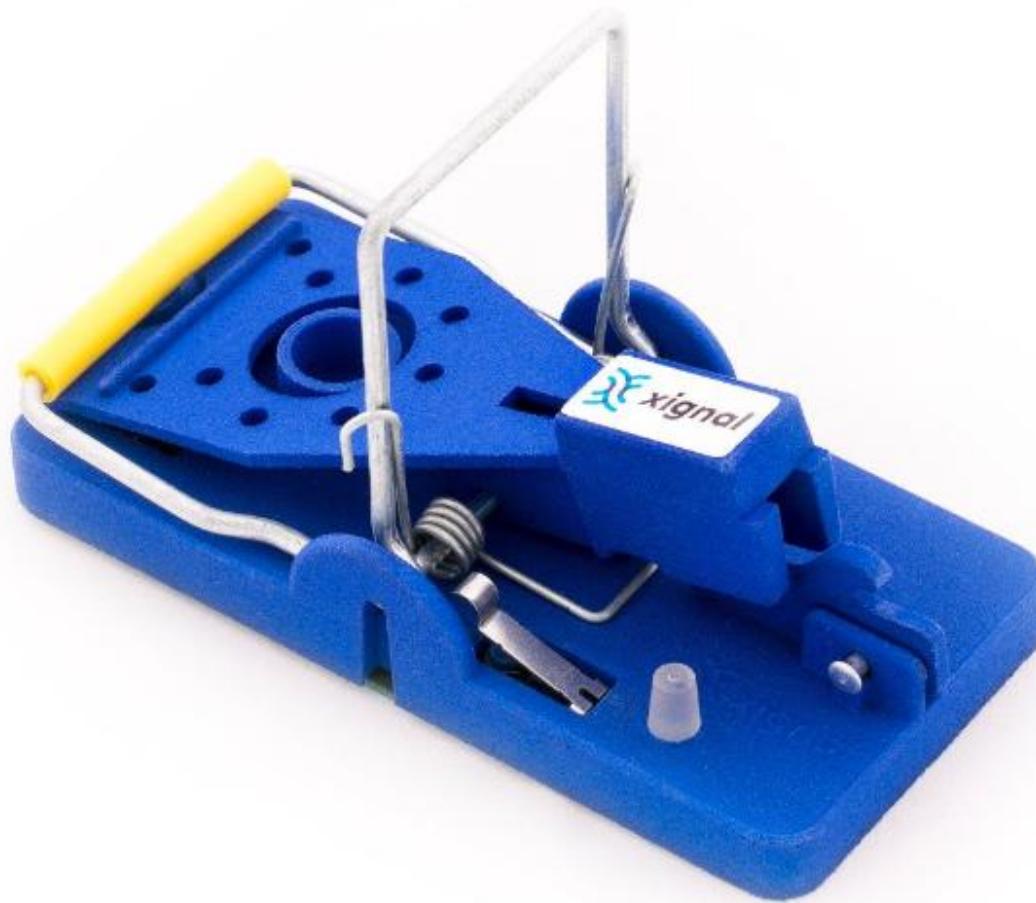
FLOOD.NETWORK





SMART MOUSE TRAP

www.xignal.com





Gateways TTN

- Multicanal
 - Cumple norma de TTN
 - Precio más elevado
- Monocanal
 - Se admite de momento
 - Muy económico
 - Pruebas



Gateways multicanal

- Comerciales
 - Lorix One (exterior)
 - **The Things Network Gateway**

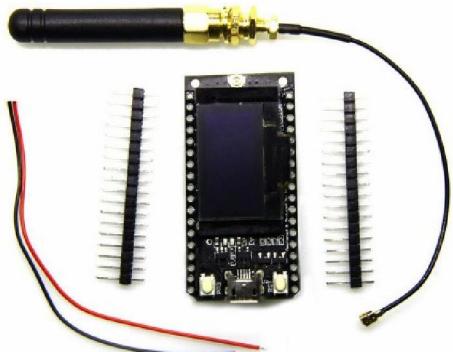


- DIY
 - Raspberry + {
 - RAK831
 - IC880a



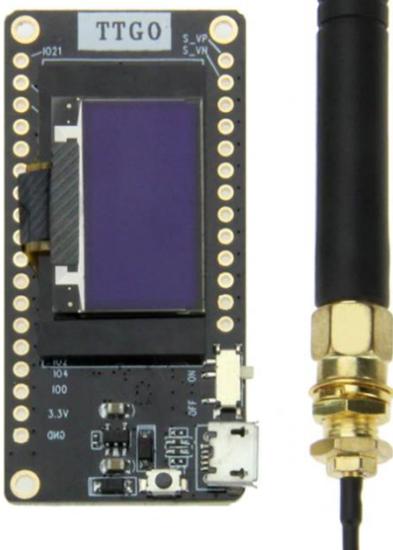
Gateways monocanal

- TTGO Lora32





Hardware interesante



TTGO Lora32

ESP32
4 Mb flash
Oled
WiFi



TTGO T-Beam

ESP32
4 Mb flash
18650
GPS
WiFi
Bluetooth

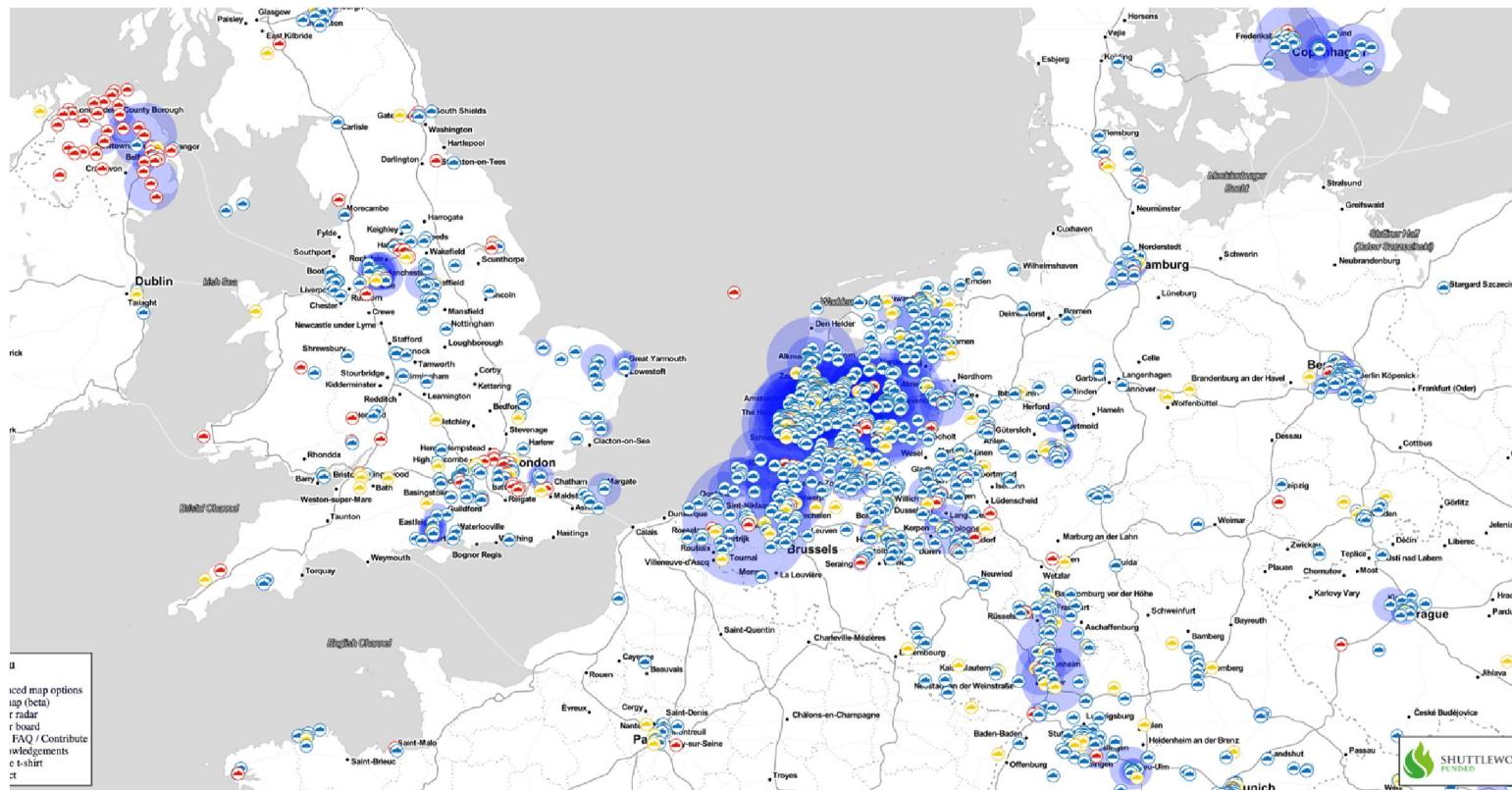


Lora Radio Node

Arduino Pro mini 3,3v 8 mhz
RFM95
LiPo

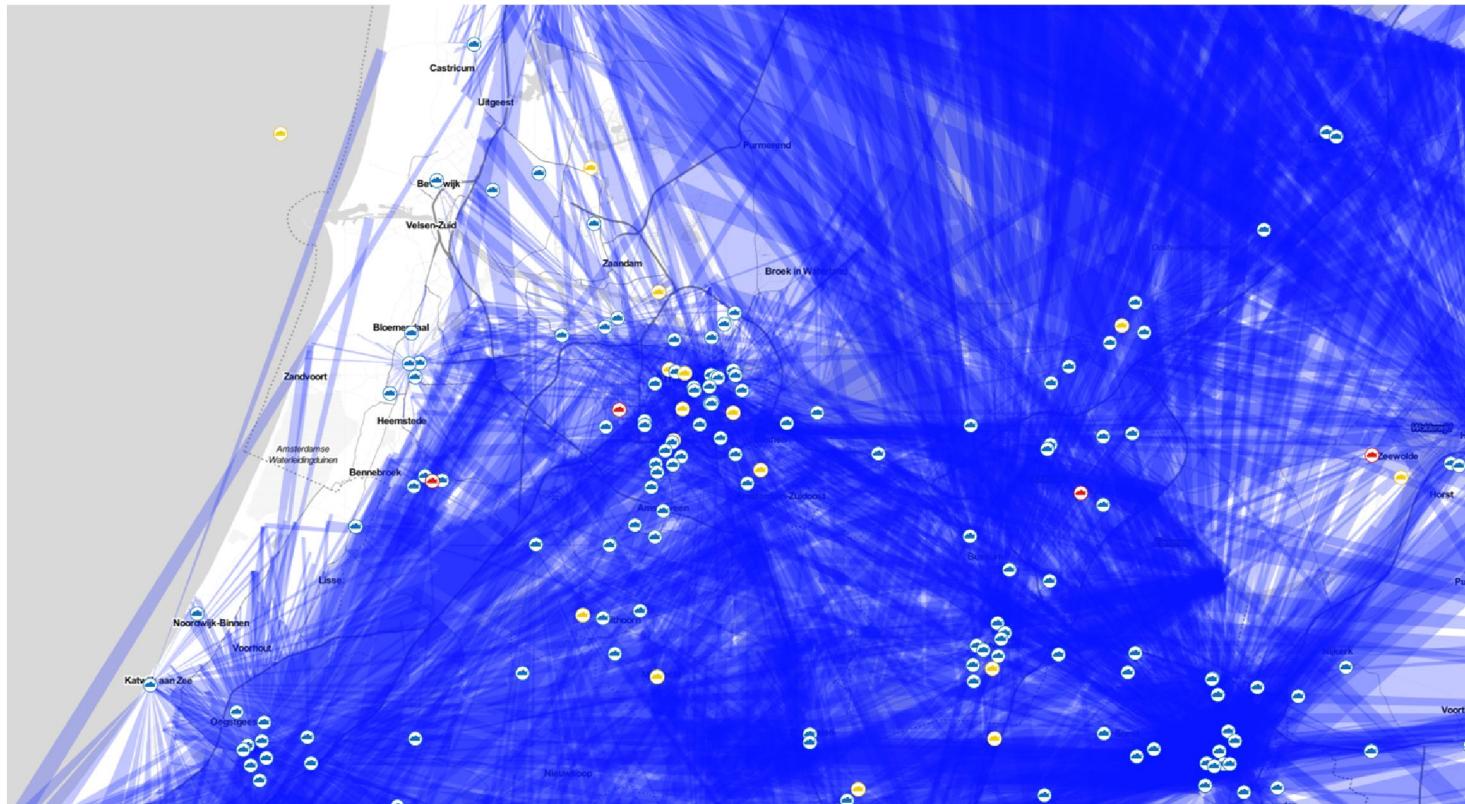


TTN Europa



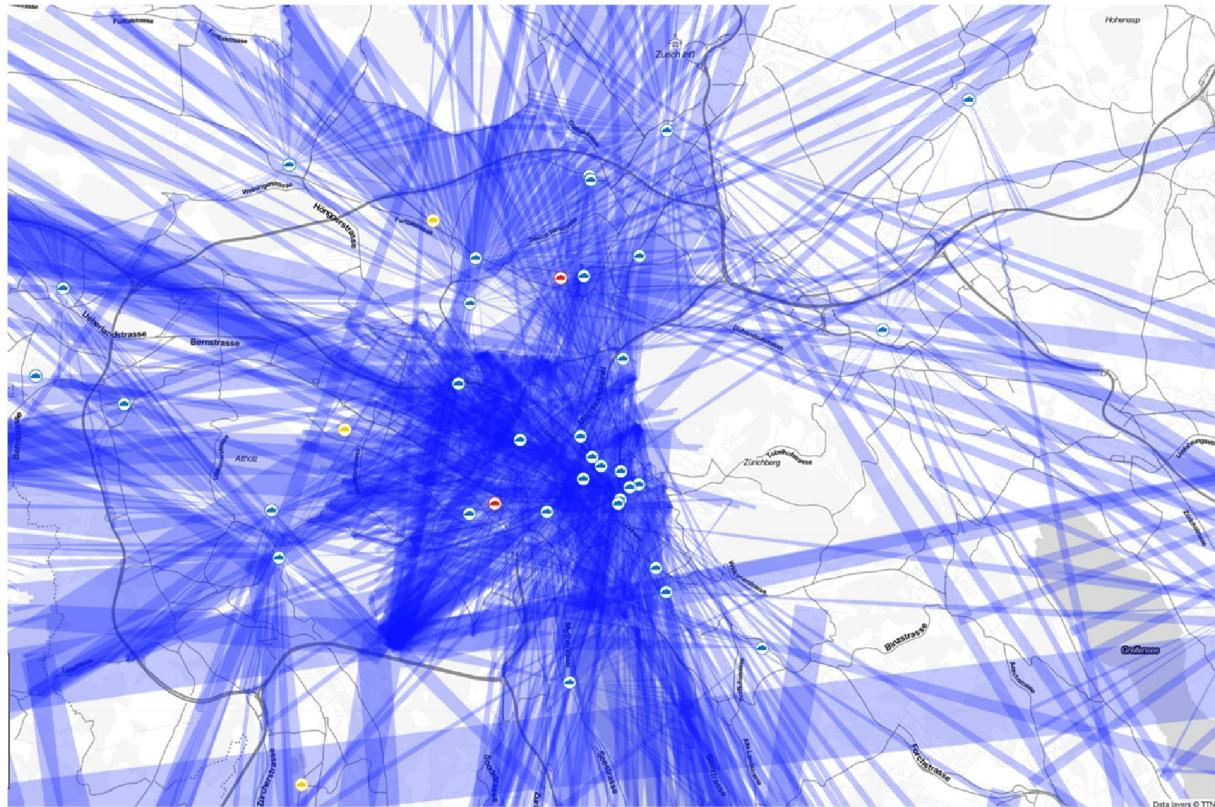


TTN Amsterdam



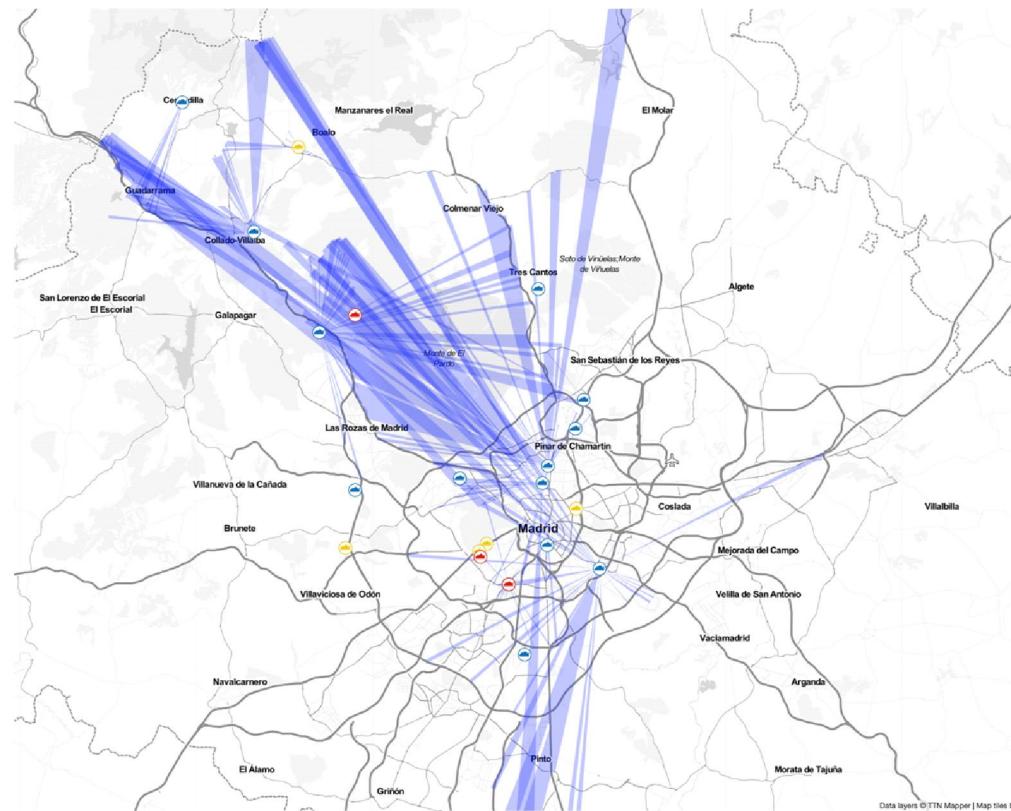


TTN Zúrich



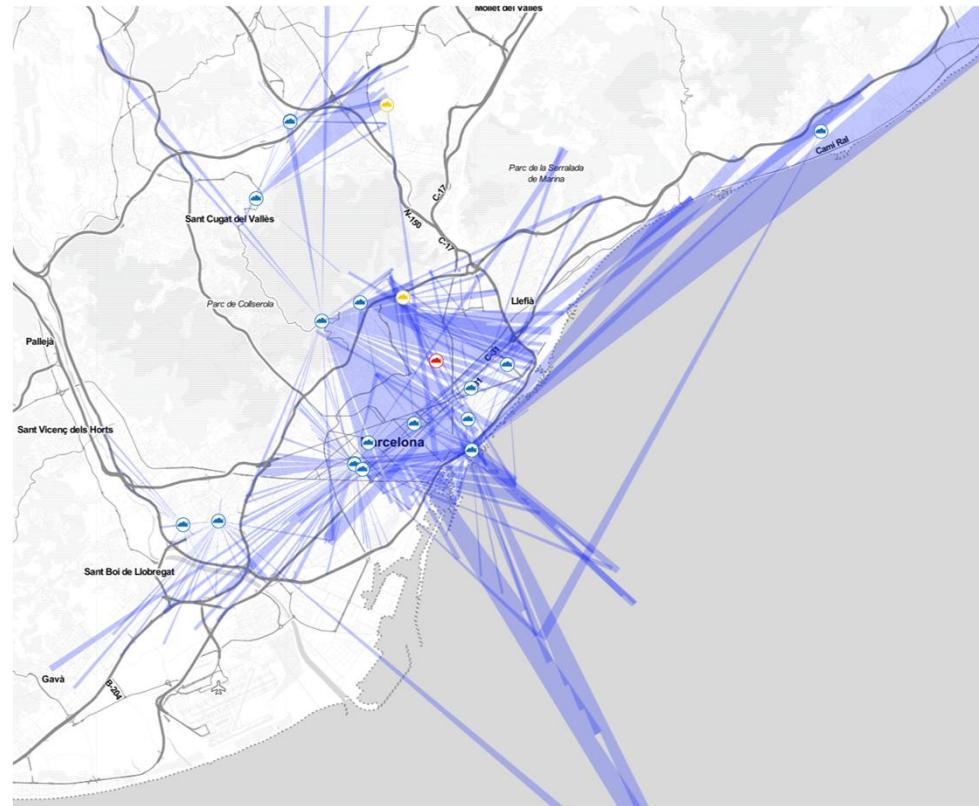


TTN Madrid



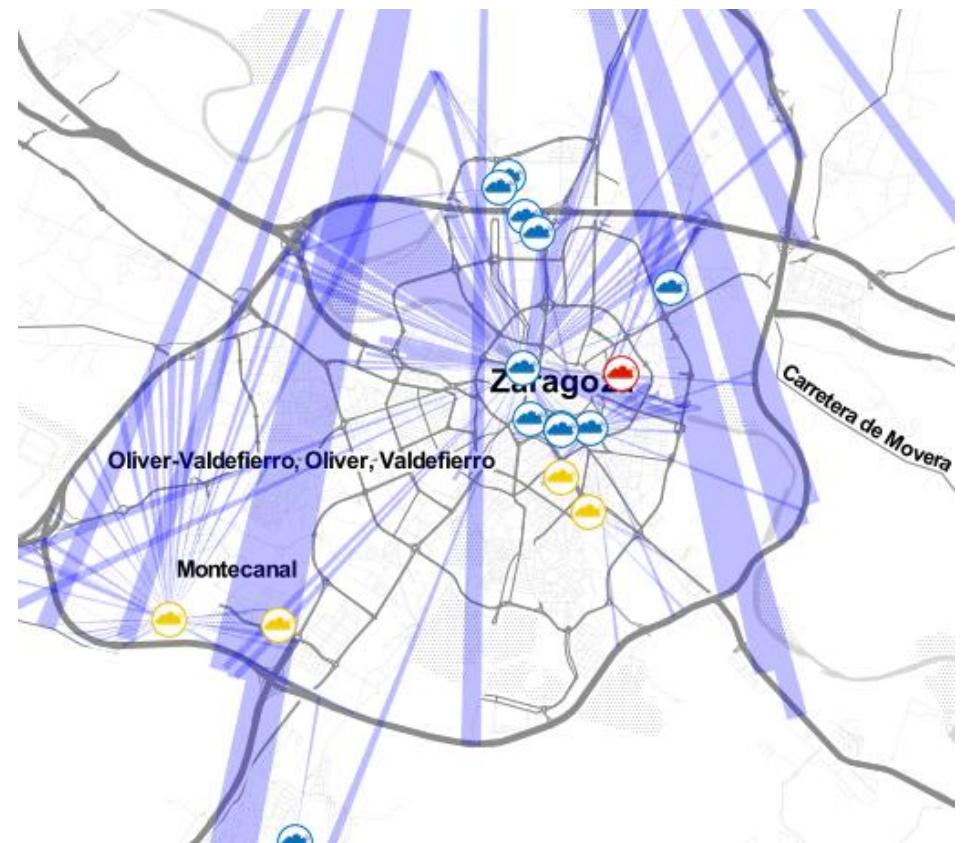


TTN Barcelona



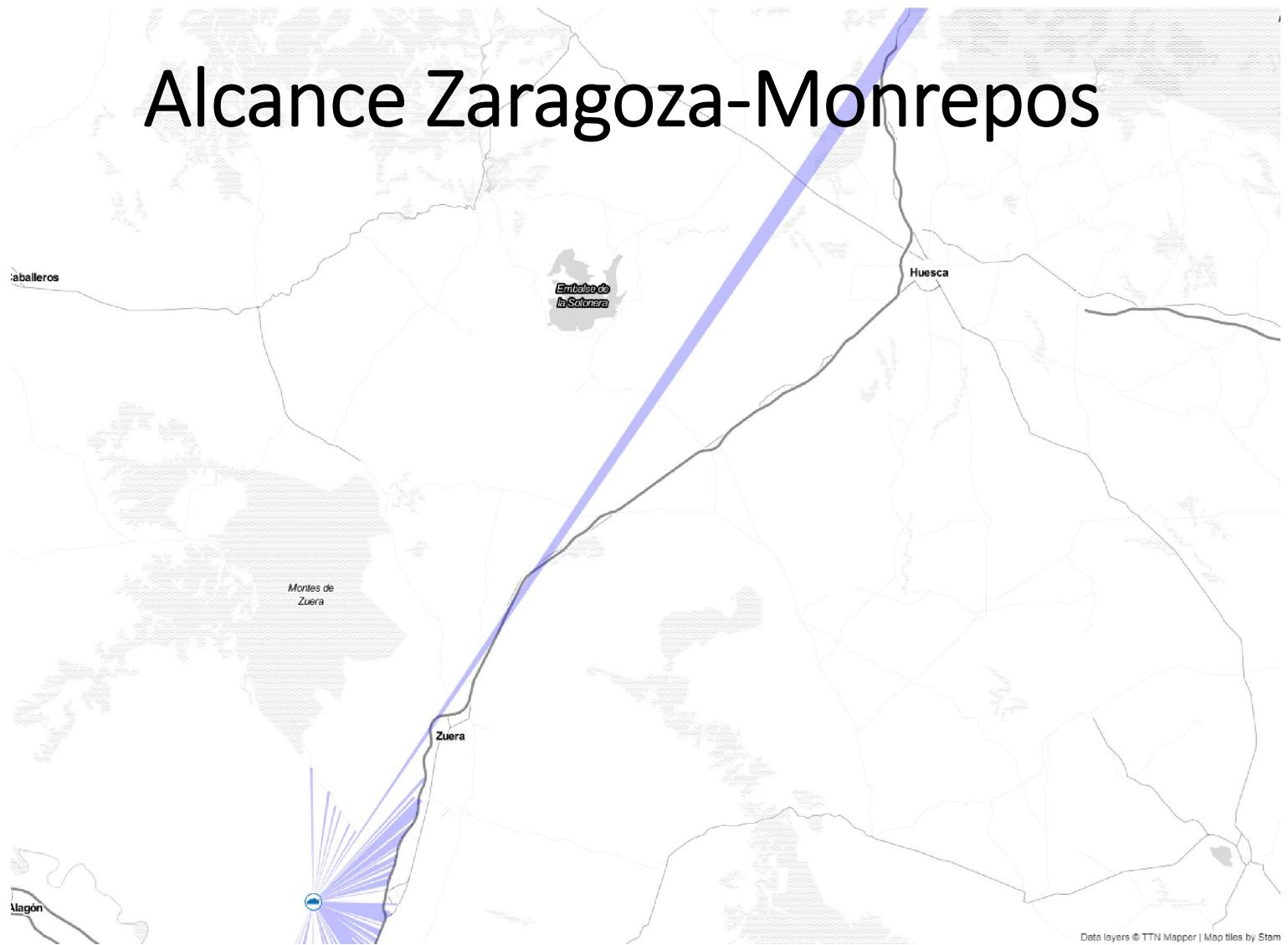


TTN Zaragoza marzo vs junio 2019





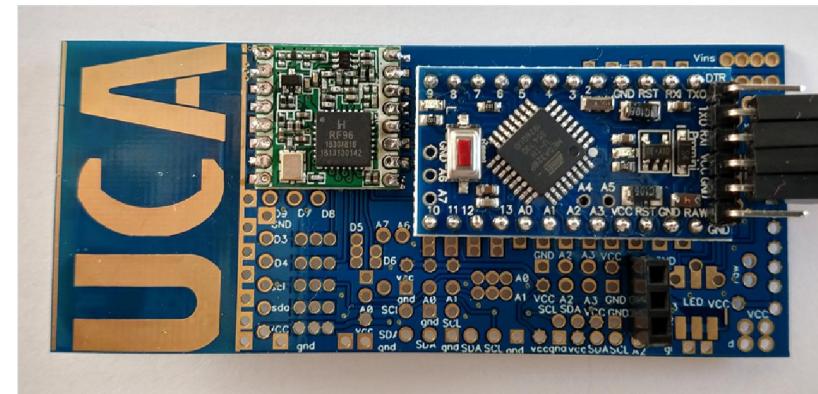
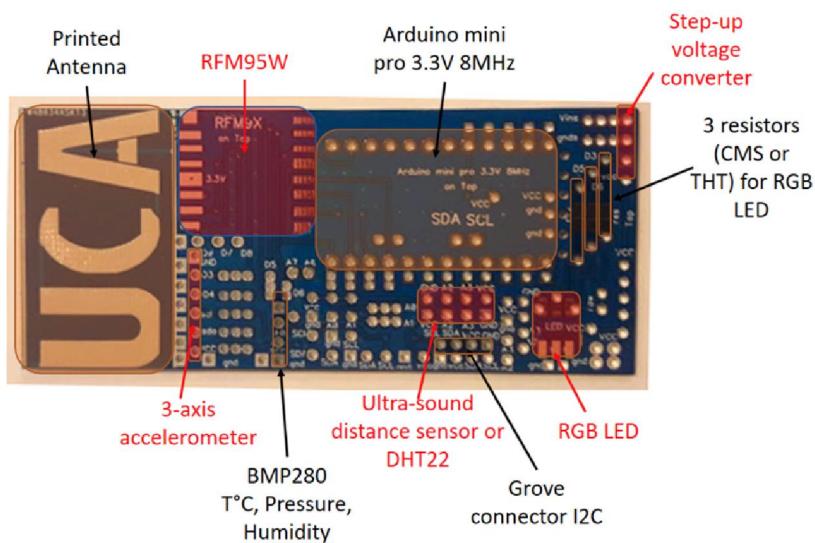
Alcance Zaragoza-Monrepos



Data layers © TTN Mapper | Map tiles by Stamen

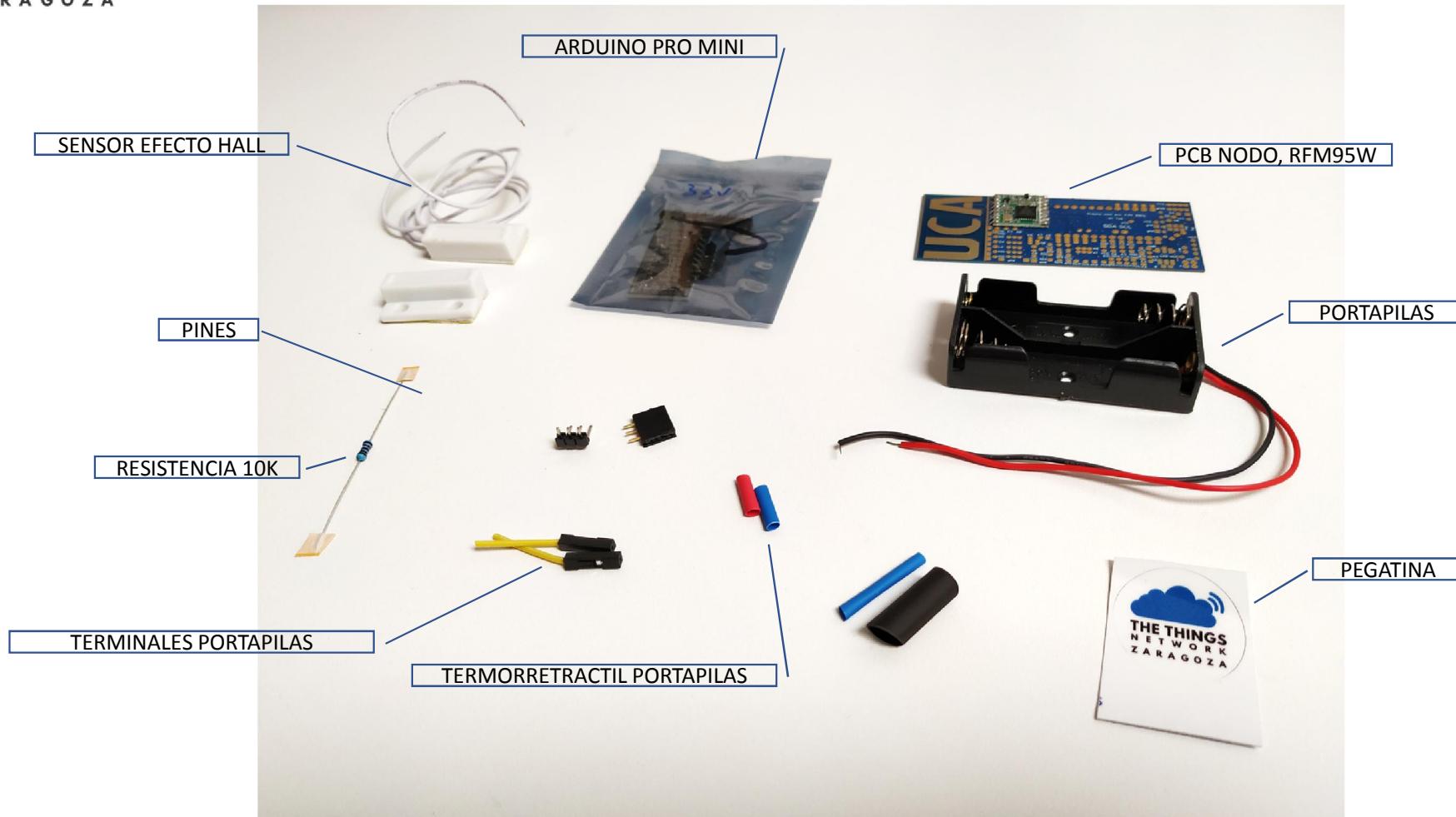


Construcción nodo TTN





Construcción nodo TTN





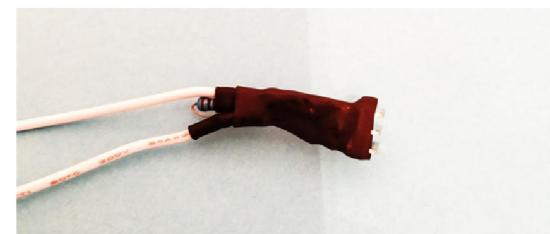
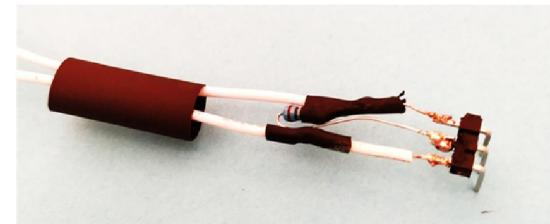
Construcción nodo TTN

- Preparación componentes nodo
- https://github.com/FabienFerrero/UCA_Board
- IDE Arduino
 - <https://www.arduino.cc/en/Main/Software>
- Librería LMIC
 - <https://github.com/matthijskooijman/arduino-lmic>
- Selección placa / puerto
- <https://www.thethingsnetwork.org>



Construcción nodo TTN

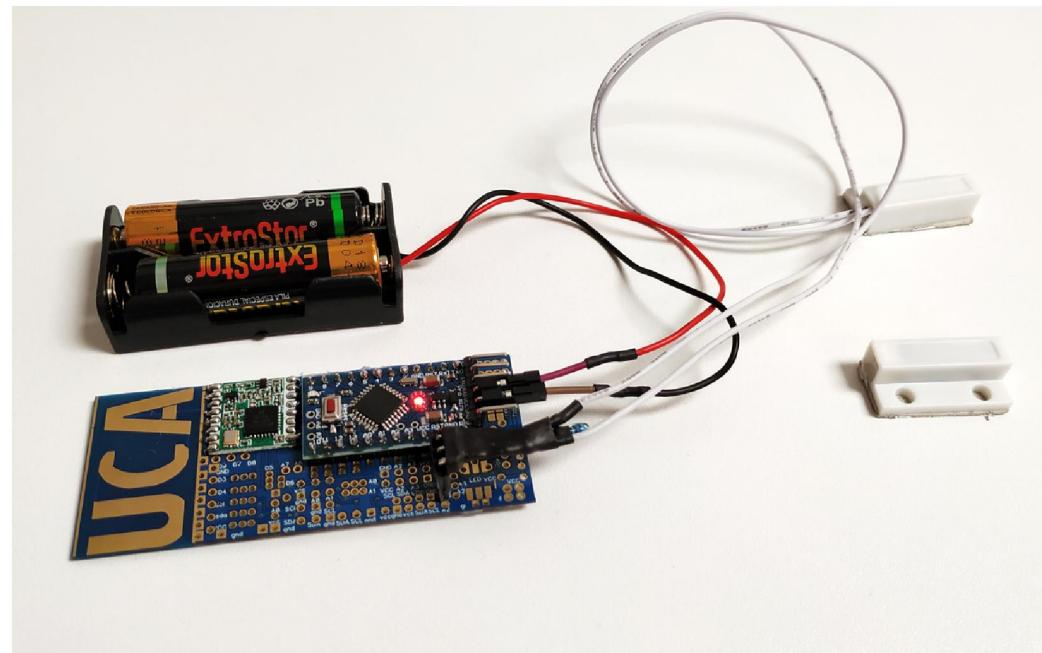
- Soldar Portapilas
 - Meter termorretractil en portapilas.
 - Preestañar portapilas y terminales portapilas.
 - Soldar terminales a portapilas y colocar termorretractil.
- Soldar Sensor Hall y Resistencia
 - Preestañar pines acodados.
 - Meter termorretractil.
 - Soldar resistencia y meter termorretractil.
 - Soldar pines acodados a resistencia y sensor.





Construcción nodo TTN

- PCB NODO
 - Soldar pines
 - Soldar PRO MINI
 - Pines Acodados
 - Pines A PCB





Construcción nodo TTN

- Descargar IDE Arduino e instalar
 - <https://www.arduino.cc/en/Main/Software>
- Instalar Librería LMIC
 - <https://github.com/matthijskooijman/arduino-lmic>
- Selección placa / puerto, PRO MINI 3,3V 8 MHZ
 - Ejemplo librería LMIC ttn-abp
- <https://www.thethingsnetwork.org>



Cuenta y alta nodo TTN

The Things Network

Communities Learn Support Forum Marketplace Conference

Building a global open LoRaWAN™ network.

Supporting 65054 developers in building industrial grade LoRaWAN® solutions

We provide a set of open tools and a global, open network to build your next IoT application at low cost, featuring maximum security and ready to scale.

Through robust end-to-end encryption, a secure and collaborative Internet of Things network is built that spans across many countries around the globe. Now operating thousands of gateways providing coverage to millions of people.

The Things Network is a proud contributor member of the LoRa Alliance.

LoRa Alliance



Cuenta y alta nodo TTN

The screenshot shows the 'CREATE AN ACCOUNT' page for The Things Network. At the top is the network's logo. Below it, the heading 'CREATE AN ACCOUNT' is followed by a sub-instruction: 'Create an account for The Things Network and start exploring the world of Internet of Things with us.' The form consists of three main input fields: 'USERNAME' (with placeholder text 'This will be your username — pick a good one because you will not be able to change it.'), 'EMAIL ADDRESS' (with placeholder text 'You will receive a confirmation email, as well as occasional account related emails. If this email address is managed by a third party (such as for corporate email addresses), this third party might block emails coming from The Things Network. This email address is not public.'), and 'PASSWORD' (with placeholder text 'Use at least 6 characters.'). Each field has a corresponding icon (person, envelope, lock) to its left. Below the fields is a green 'Create account' button. At the bottom of the form, a small note states: 'By registering an account you agree to our [Terms and Conditions](#) and [Privacy Policy](#)'. A link to 'Log in' is also present.

CREATE AN ACCOUNT

Create an account for The Things Network and start exploring the world of Internet of Things with us.

USERNAME

This will be your username — pick a good one because you will not be able to change it.

EMAIL ADDRESS

You will receive a confirmation email, as well as occasional account related emails. If this email address is managed by a third party (such as for corporate email addresses), this third party might block emails coming from The Things Network. This email address is not public.

PASSWORD

Use at least 6 characters.

Create account

By registering an account you agree to our [Terms and Conditions](#) and [Privacy Policy](#).

Already have an account? [Log in](#)



Cuenta y alta nodo TTN

The screenshot shows the The Things Network homepage with a city skyline background. A central callout box contains the text "Building a global open LoRaWAN™ network." Below this, there are icons for a car, a router, a video camera, and a monitor. At the bottom, it says "Supporting 65055 developers in building industrial grade LoRaWAN solutions". In the top right corner, there is a user profile menu with options for "My Profile", "Console" (which is highlighted with a red box), and "Log Out".



Cuenta y alta nodo TTN

The screenshot shows the landing page of the The Things Network Console. At the top, it says "Hi, Rodolfo!" with a yellow hand icon. Below that, it says "Welcome to The Things Network Console." and "This is where the magic happens. Here you can work with your data. Register applications, devices and gateways, manage your integrations, collaborators and settings." There are two main sections: "APPLICATIONS" (represented by a stack of three blue hexagons) and "GATEWAYS" (represented by a blue device with a signal icon). A red box highlights the "APPLICATIONS" section.

Hi, Rodolfo!

Welcome to The Things Network Console.

This is where the magic happens. Here you can work with your data. Register applications, devices and gateways, manage your integrations, collaborators and settings.

APPLICATIONS

GATEWAYS



Cuenta y alta nodo TTN

The screenshot shows the 'APPLICATIONS' section of the The Things Network web interface. It displays four existing applications and a button to add a new one.

Name	Description	Type	Address
arduino_day	Prueba UCA	ttn-handler-eu	70 B3 D5 7E D0 01 91 48
pajaroスマーカー	pajaroスマーカー	ttn-handler-eu	70 B3 D5 7E D0 01 4D 8E
prueba191218	prueba191218	ttn-handler-eu	70 B3 D5 7E D0 01 5B D5
ttngz_mapper	Mapeo de TTNGZ	ttn-handler-eu	70 B3 D5 7E D0 01 6B 80

add application



Cuenta y alta nodo TTN

ADD APPLICATION

Application ID
The unique identifier of your application on the network

Description
A human readable description of your new app

Application EUI
An application EUI will be issued for The Things Network block for convenience, you can add your own in the application settings page.

Handler registration
Select the handler you want to register this application to

[Cancel](#) [Add application](#)



Cuenta y alta nodo TTN

The screenshot shows the 'Overview' tab selected in the top navigation bar. The main content area is divided into four sections:

- APPLICATION OVERVIEW**: Shows the Application ID (acceso_puerta), Description (Aplicación control de acceso), Created (1 minute ago), and Handler (ttn-handler-eu). A 'documentation' link is also present.
- APPLICATION EUIS**: Displays the EUIS value: 70B3D57E00192C5. A 'manage euis' link is available.
- DEVICES**: Shows 0 registered devices. A 'register device' button is highlighted with a red box, and a 'manage devices' link is present.
- COLLABORATORS**: Shows a collaborator named RAV. A 'manage collaborators' link is available.



Cuenta y alta nodo TTN

REGISTER DEVICE

[bulk import devices](#)

Device ID
This is the unique identifier for the device in this app. The device ID will be immutable.

sensor_puerta_uca

Device EUI
The device EUI is the unique identifier for this device on the network. You can change the EUI later.

this field will be generated

App Key
The App Key will be used to secure the communication between your device and the network.

this field will be generated

App EUI

70 B3 D5 7E D0 01 92 C5

[Cancel](#) [Register](#)



Cuenta y alta nodo TTN

The screenshot shows the 'DEVICE OVERVIEW' page for a device. At the top, there are three tabs: 'Overview' (selected), 'Data', and 'Settings'. The 'Settings' tab is highlighted with a red box.

Application ID: acceso_puerta

Device ID: sensor_puerta_uca

Activation Method: OTAA

Device EUI: 00 ED CA 8C 81 AE 17 70

Application EUI: 70 B3 D5 7E D0 01 92 C5

App Key: (redacted)

Status: never seen

Frames up: 0 [reset frame counters](#)

Frames down: 0



Cuenta y alta nodo TTN

SETTINGS

Description
A human-readable description of the device

Device EUI
The serial number of your radio module, similar to a MAC address
 00 ED CA 8C 81 AE 17 70 8 bytes

Application EUI
 70 B3 D5 7E D0 01 92 C5

Activation Method
 OTA ABP

Device Address
The device address will be assigned by the network server

Network Session Key
 Network Session Key will be generated

App Session Key
 App Session Key will be generated

Frame Counter Width
 16 bit 32 bit

Frame Counter Checks
Disabling frame counter checks drastically reduces security and should only be used for development purposes

[Delete Device](#) [Cancel](#) [Save](#)



Cuenta y alta nodo TTN

DEVICE OVERVIEW

Application ID acceso_puerta

Device ID sensor_puerta_uca

Activation Method ABP

Device EUI 00 ED CA 8C 81 AE 17 70

Application EUI 70 B3 D5 7E D0 01 92 C5

Device Address 26 01 19 44

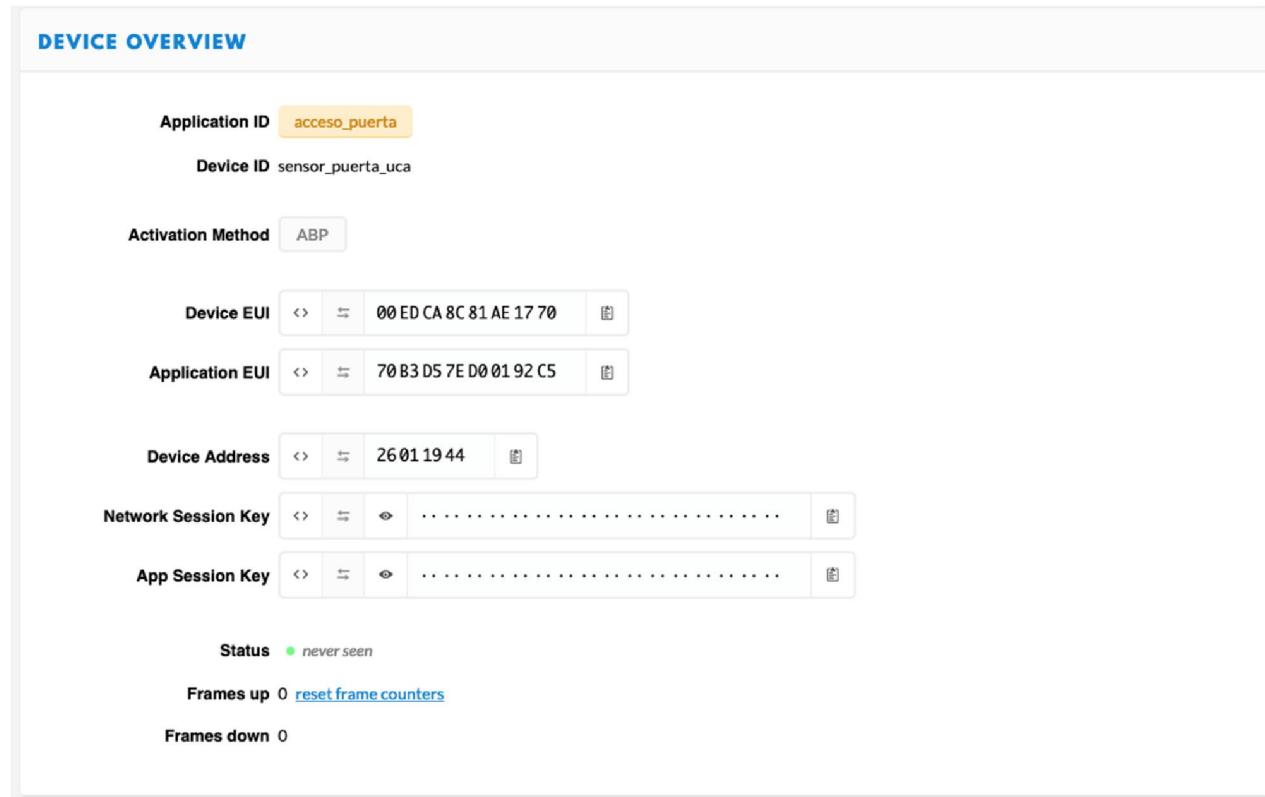
Network Session Key (redacted)

App Session Key (redacted)

Status never seen

Frames up 0 [reset frame counters](#)

Frames down 0





Cuenta y alta nodo TTN

Application ID **acceso_puerta**

Device ID **sensor_puerta_uca**

Activation Method **ABP**

Device EUI **00 ED CA 8C 81 AE 17 70**

Application EUI **70 B3 D5 7E D0 01 92 C5**

Device Address **26 01 19 44**

Network Session Key **{ 0x47, 0xAA, 0x00, 0x70, 0x59, 0xD0, 0xD2, 0xB3, 0xC5, 0xFA, 0xEF, 0x5F, }**

App Session Key **{ 0xFF, 0x93, 0xC1, 0x9E, 0x5F, 0xDE, 0xEF, 0xE9, 0xF7, 0x52, 0x32, 0x3F, }**

Status **never seen**

Frames up 0 [reset frame counters](#)

Frames down 0



Cuenta y alta nodo TTN

```
#include <lmic.h>
#include <hal/hal.h>
#include <SPI.h>

// LoRaWAN NwkSKey, network session key
// This is the default Semtech key, which is used by the early prototype TTN
// network.
static const PROGMEM u1_t NWKSKEY[16] = { 0x2B, 0x7E, 0x15, 0x16, 0x28, 0xAE, 0xD2, 0xA6, 0xAB, 0xF7, 0x15, 0x88, 0x09, 0xCF, 0x4F, 0x3C };

// LoRaWAN AppSKey, application session key
// This is the default Semtech key, which is used by the early prototype TTN
// network.
static const u1_t PROGMEM APPSKEY[16] = { 0x2B, 0x7E, 0x15, 0x16, 0x28, 0xAE, 0xD2, 0xA6, 0xAB, 0xF7, 0x15, 0x88, 0x09, 0xCF, 0x4F, 0x3C };

// LoRaWAN end-device address (DevAddr)
static const u4_t DEVADDR = 0x03FF0001; // <-- Change this address for every node!

// These callbacks are only used in over-the-air activation, so they are
// left empty here (we cannot leave them out completely unless
// DISABLE_JOIN is set in config.h, otherwise the linker will complain).
void os_getArtEui(u1_t* buf) {}
void os_getDevEui(u1_t* buf) {}
void os_getDevKey(u1_t* buf) {}

static uint8_t mydata[] = "Hello, world!";
static osjob_t sendjob;

// Schedule TX every this many seconds (might become longer due to duty
// cycle limitations).
const unsigned TX_INTERVAL = 60;

// Pin mapping
const lmic_pinmap lmic_pins = {
    .nss = 6,
    .rxtx = LMIC_UNUSED_PIN,
    .rst = 5,
    .dio = {2, 3, 4},
};
```



```
// Pin mapping
const lmic_pinmap lmic_pins = {
    .nss = 10,
    .rxtx = LMIC_UNUSED_PIN,
    .rst = 8,
    .dio = {2, 7, 9},
};
```



Cuenta y alta nodo TTN

APPLICATION DATA

II pause ━ clear

Filters uplink downlink activation ack error

time	counter	port	dev id:	payload:
▲ 10:23:44	1	1	ucaboard	48 65 6C 6C 6F 2C 20 77 6F 72 6C 64 21



Cuenta y alta nodo TTN

time counter port

▲ 10:25:48 3 1 dev id: [ucaboard](#) payload: 48 65 6C 6C 6F 2C 20 77 6F 72 6C 64 21

Uplink

Payload

```
48 65 6C 6C 6F 2C 20 77 6F 72 6C 64 21
```

Fields
no fields

Metadata

```
{
  "time": "2019-03-14T09:25:48.865183274Z",
  "frequency": 867.1,
  "modulation": "LORA",
  "data_rate": "SF7BW125",
  "coding_rate": "4/5",
  "gateways": [
    {
      "gtw_id": "eui-b827ebffffe5703a5",
      "timestamp": 3684458803,
      "time": "2019-03-14T09:25:48.844653Z",
      "channel": 3,
      "rss": -72,
      "snr": 9.2,
      "latitude": 41.76985,
      "longitude": -0.89087,
      "altitude": 310
    }
  ]
}
```

Estimated Airtime
46.336 ms



Cuenta y alta nodo TTN

<https://www.rapidtables.com/convert/number/hex-to-ascii.html>

Hex to ASCII text converter

Enter 2 digits hex numbers with any prefix / postfix / delimiter and press the *Convert* button (e.g. 45 78 61 6d 70 6C 65 21):

The screenshot shows a web-based hex-to-ascii converter. At the top, there is a text input field containing the hex string: 48 65 6C 6C 6F 2C 20 77 6F 72 6C 64 21. Below the input field are three buttons: 'Convert' (highlighted with a blue border), 'Reset', and 'Swap'. Underneath the buttons, the converted ASCII text 'Hello, world!' is displayed in a green-highlighted area. At the bottom of the interface is a 'Select' button.

48 65 6C 6C 6F 2C 20 77 6F 72 6C 64 21

Convert Reset Swap

Hello, world!

Select



Cuenta y alta nodo TTN

PAYOUT FORMATS

Payload Format
The payload format sent by your devices

Custom

decoder converter validator encoder remove decoder

```
1 function Decoder(bytes, port) {  
2     var text = String.fromCharCode.apply(null, bytes);  
3     return {  
4         estado: text  
5     }  
6 }
```

decoder has unsaved changes [undo changes](#)

Payout

0 bytes 1 Test

A screenshot of the The Things Network Payload Formats configuration interface. It shows a 'Payload Format' section with a 'Custom' dropdown. Below it is a 'decoder' tab selected, showing a script editor with the provided code. A note says 'decoder has unsaved changes' with a 'undo changes' link. Below the editor is a 'Payload' section with a text input field, a byte count of '0 bytes', a sequence number '1', and a green 'Test' button.

* <https://ictoblog.nl/2018/01/13/my-chinese-esp32-sx1276-board-dht11-connected-to-the-things-network-1>



Cuenta y alta nodo TTN

APPLICATION DATA

II pause X clear

Filters uplink downlink activation ack error

time	counter	port	dev id:	payload:	estado:
▲ 10:33:59	0	1	ucaboard	48 65 6C 6C 6F 2C 20 77 6F 72 6C 64 21	"Hello, world!"

¡Lo más correcto es aprovechar cada Byte del payload que enviamos, esto es sólo una demostración!



Cuenta y alta nodo TTN

- Accedemos a https://github.com/TTNZGZ/Arduino_day_2019_TTNZGZ
- Descargamos [ttn-abp-sensorReed.ino](#)
- Modificamos con los datos de nuestro nodo y pin mapping
- Compilación y carga (carga con reset pulsado).



IFTTT

The screenshot shows the The Things Network application interface with three main sections: Application Overview, Application EUIS, and Devices.

APPLICATION OVERVIEW

- Application ID:** arduino_day
- Description:** Prueba UCA
- Created:** 2 days ago
- Handler:** ttn-handler-eu (current handler)

[documentation](#)

APPLICATION EUIS

EUI: 70 B3 DS 7E D0 01 91 48

[manage euis](#)

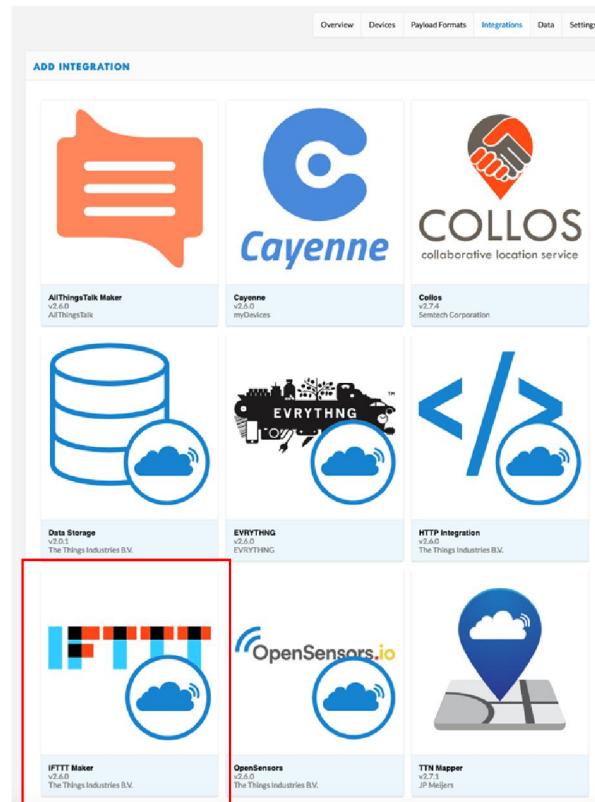
DEVICES

[register device](#) [manage devices](#)

1 registered device



IFTTT





IFTTT

ADD INTEGRATION

IFTTT Maker (v2.6.0)
The Things Industries B.V.

[documentation](#)

Process ID
The unique identifier of the new integration process

Event Name
The event name of your IFTTT recipe

Key
Your key

Value 1
Payload field name to send as value 1

Value 2
Payload field name to send as value 2

Value 3
Payload field name to send as value 3



IFTTT

The screenshot shows the IFTTT website with a blue header bar. On the left, the IFTTT logo is followed by a red-bordered button labeled "My Applets". To its right are "Activity" and "Search" buttons. On the far right is a user profile icon for "rartigas" with a dropdown arrow. Below the header, there's a large white "Webhooks" icon consisting of three interconnected circles. Underneath it, the word "Webhooks" is written in a large, bold, white sans-serif font. A descriptive paragraph follows:

Integrate other services on IFTTT with your DIY projects. You can create Applets that work with any device or app that can make or receive a web request. If you'd like to build your own service and Applets, [check out the IFTTT platform.](#)

My Applets



IFTTT

The image shows the IFTTT dashboard interface. At the top, there is a navigation bar with the IFTTT logo, a "My Applets" link (underlined), an "Activity" link, a "Search" link, and a user profile "rartigas". Below the navigation bar, there are two main sections: "Applets" (selected) and "Services". The "Applets" section has a grey header with the word "Applets" and a small cloud icon. The "Services" section has a grey header with the word "Services" and a small circle icon. In the bottom right corner of the dashboard, there is a prominent black button with the white text "New Applet", which is highlighted with a red rectangular border.



IFTTT

New Applet

if  this then that



IFTTT

Choose a service

Step 1 of 6

webhooks



Webhooks



IFTTT



Choose trigger

Step 2 of 6

Receive a web request

This trigger fires every time the Maker service receives a web request to notify it of an event. For information on triggering events, go to your Maker service settings and then the listed URL (web) or tap your username (mobile)



IFTTT



Complete trigger fields

Step 2 of 6

Receive a web request

This trigger fires every time the Maker service receives a web request to notify it of an event. For information on triggering events, go to your Maker service settings and then the listed URL (web) or tap your username (mobile)

Event Name

apertura_puerta

The name of the event, like "button_pressed" or "front_door_opened"

Create trigger



IFTTT

if  then 

The text "if" is in large black font. To its right is a blue square containing a white The Things Network logo (three interconnected nodes). To the right of that is the word "then" in large black font. To the right of "then" is a blue square containing a white IFTTT logo (a plus sign inside a circle). The entire "then" and "that" section is enclosed in a red rectangular border.



IFTTT

Choose action service

Step 3 of 6

notifications



Notifications



IFTTT

Send a notification from the IFTTT app

This action will send a notification to your devices from the IFTTT app.

Send a rich notification from the IFTTT app

This action will send a rich notification to your devices from the IFTTT app. Rich notifications may include a title, image, and link that opens in a browser or installed app.



IFTTT

Complete action fields

Step 5 of 6

Send a notification from the IFTTT app

This action will send a notification to your devices from the IFTTT app.

Message

The event named "`EventName`" occurred on the Maker Webhooks service

[Add ingredient](#)

[Create action](#)



IFTTT

Send a notification from the IFTTT app

This action will send a notification to your devices from the IFTTT app.

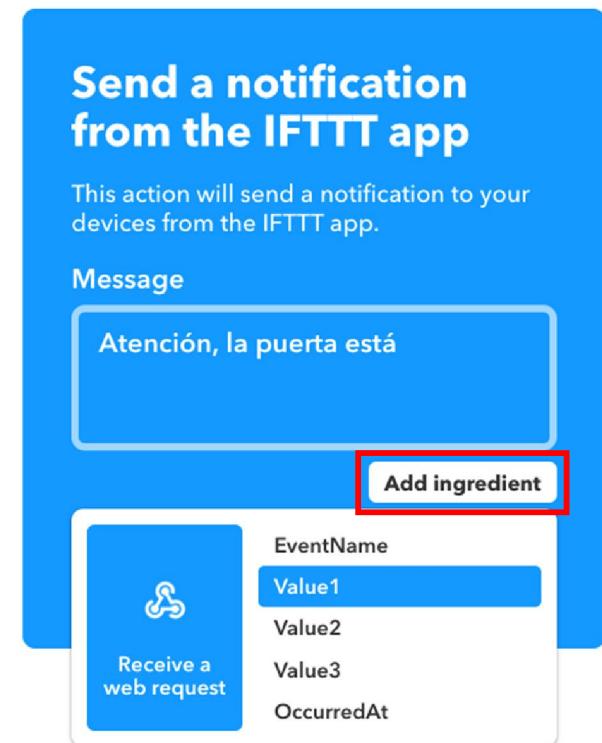
Message

Atención, la puerta está

Add ingredient

Receive a web request

EventName
Value1
Value2
Value3
OccurredAt

A screenshot of an IFTTT recipe card. The main title is "Send a notification from the IFTTT app". Below it is a description: "This action will send a notification to your devices from the IFTTT app." A text input field contains the message "Atención, la puerta está". Below the message is a red-bordered button labeled "Add ingredient". To the left of the main card is a smaller card titled "Receive a web request" with a gear icon. To the right of the main card is a sidebar with fields: "EventName" (with "Value1" selected), "Value2", "Value3", and "OccurredAt".



IFTTT

Complete action fields

Step 5 of 6

Send a notification from the IFTTT app

This action will send a notification to your devices from the IFTTT app.

Message

Atención, la puerta está {{Value1}}

[Add ingredient](#)

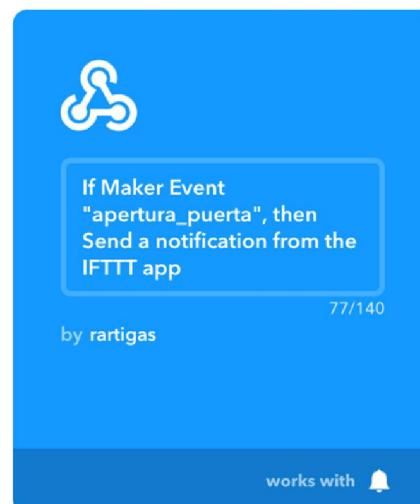
[Create action](#)



IFTTT

Review and finish

Step 6 of 6

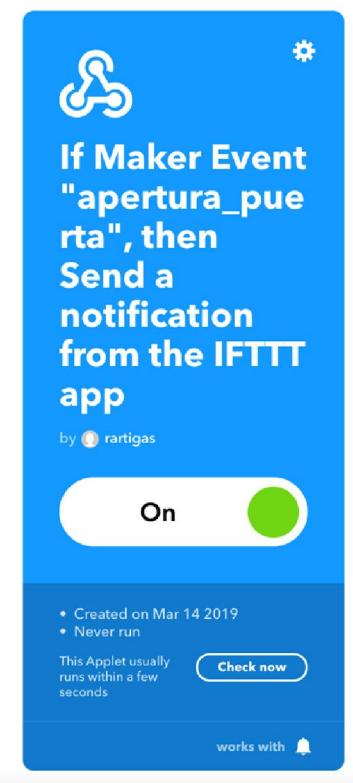


A screenshot of an IFTTT recipe card. The card has a blue header with the IFTTT logo (three circles) and a white body. The main text in the body reads: "If Maker Event 'apertura_puerta', then Send a notification from the IFTTT app". Below this, it says "by rartigas" and "77/140". At the bottom, it says "works with" and shows a small bell icon.

Finish



IFTTT





IFTTT

IFTTT

[My Applets](#)[Activity](#)[Search](#)

My Applets > **Webhooks**



IFTTT

[Documentation](#)[Settings](#)

Webhooks

Integrate other services on IFTTT with your DIY projects. You can create Applets that work with any device or app that can make or receive a web request. If you'd like to build your own service and Applets, [check out the IFTTT platform.](#)



IFTTT



Your key is: **cqUO6DD47PtQ**

[Back to service](#)

To trigger an Event

Make a POST or GET web request to:

```
https://maker.ifttt.com/trigger/ {event} /with/key/cqUO6DD47PtQ
```

With an optional JSON body of:

```
{ "value1" : " [ ] ", "value2" : " [ ] ", "value3" : " [ ] " }
```

The data is completely optional, and you can also pass value1, value2, and value3 as query parameters or form variables. This content will be passed on to the Action in your Recipe.

You can also try it with curl from a command line.

```
curl -X POST https://maker.ifttt.com/trigger/{event}/with/key/cqUO6DD47PtQ
```

Test It



IFTTT

SETTINGS

Event Name
The event name of your IFTTT recipe
 ✓

Key
Your key
 ✓

Value 1
Payload field name to send as value 1
 ✓

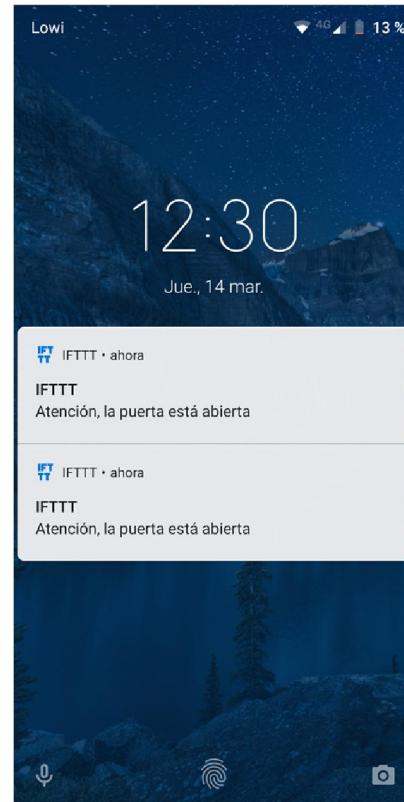
Value 2
Payload field name to send as value 2
 ✓

Value 3
Payload field name to send as value 3
 ✓

A red rectangular box highlights the first three settings: Event Name, Key, and Value 1.



IFTTT





Muchas gracias

<https://www.thethingsnetwork.org/community/zaragoza>



Síguenos @TtnZgz