

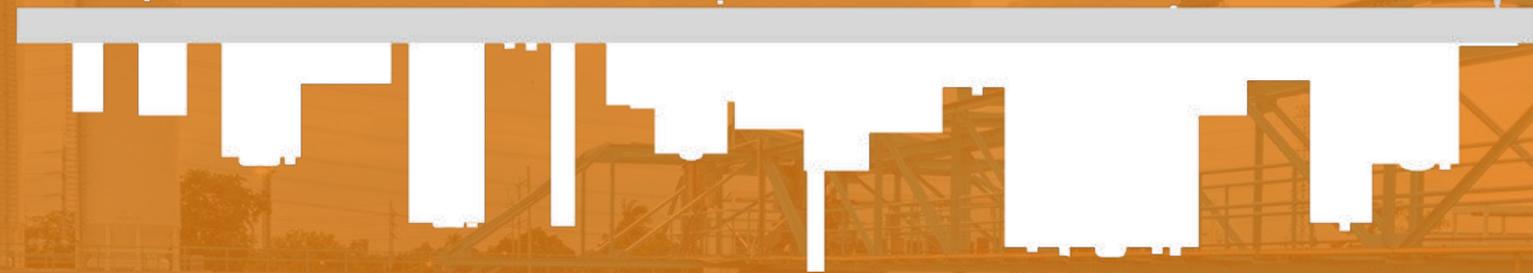
WizeAlliance 

AllWize

Wize hackathon

Create a LPWA IoT prototype
using the new Wize technology

WizeAlliance



Welcome



François Moreau - Head of Development Committee

LPWAN

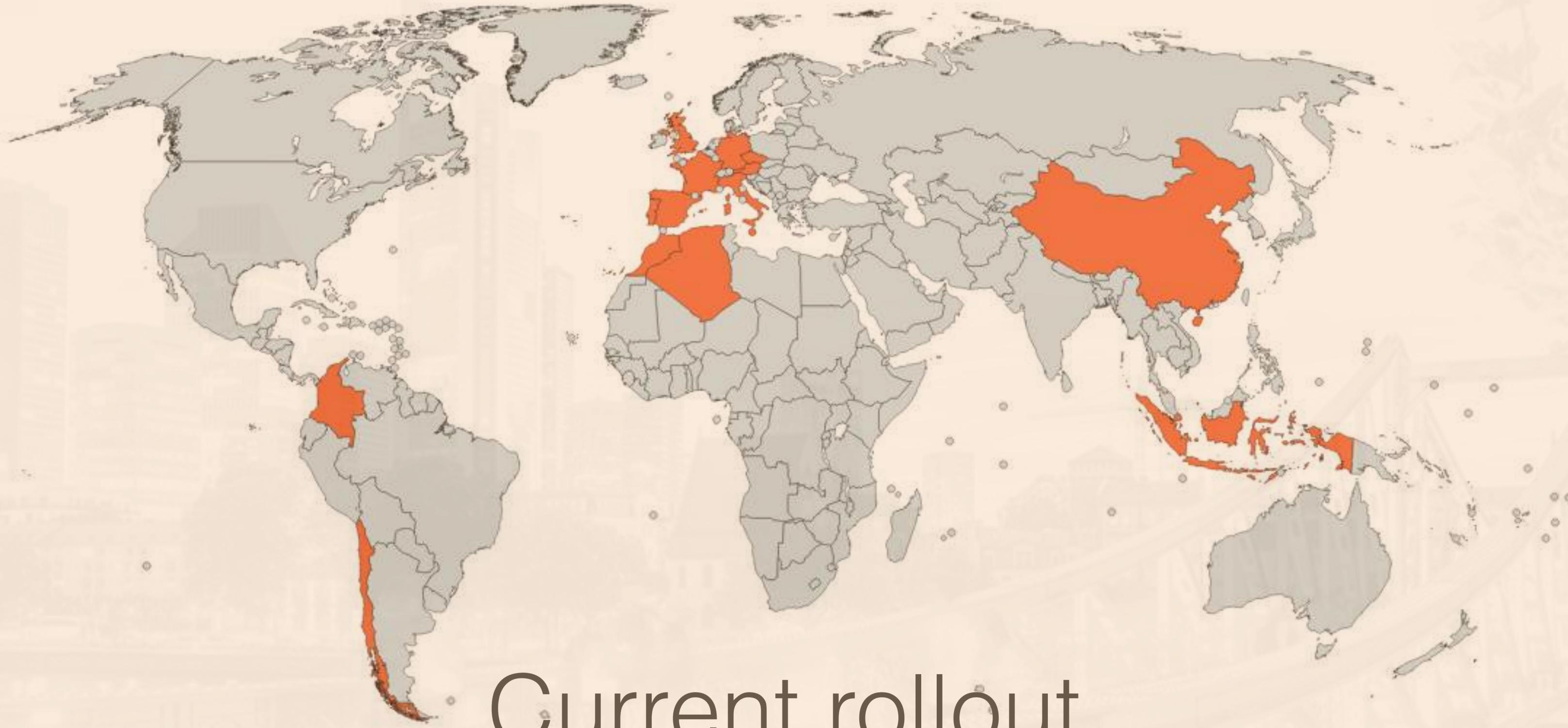


ADAPTRUM





- Using the old, refurbished **169 MHz** frequency band, now ISM (license free), non-polluted
- Based on a robust and reliable standard **EN-13757** - Wireless M-Bus, with **large scale rollouts** in place (3M+ devices)
- **Long distance**, up to 20km LoS; but **non-handover** mechanism
- **Extremely low-power consumption**: up to 20 years of battery life in 1 message/day
- **Bidirectional** with **OTAP**
- **Deep** indoor radio penetration



Current rollout

Business models

A flexible solution:

- No **chip** vendor lock-in



- No **telco** lock-in



sigfox

Make Things Come Alive

- 3 options on the infrastructure site (WAN definition ongoing):
 - ➔ **Self-operated**, self-infrastructure network
 - ➔ Use of **existing** and already deployed network
 - ➔ Deploy infrastructure and **become an operator** of it

The Deep Indoor Low Power (**DILP**) solution

- Using **lower frequencies**: deeper indoor link & lower path loss
- **Adjustable** output power to prioritise either power consumption or long range, or both (trade-off)
- Medium **data rates**, from 2.4 to 6.4 kbps, reduce emission time
- Small **payloads** frames, especially suitable for low data use cases
- **No signalling** channels needed and non-polluted channels, **minimum re-transmissions**



Allwize

Wize made easy

Introducing AllWize

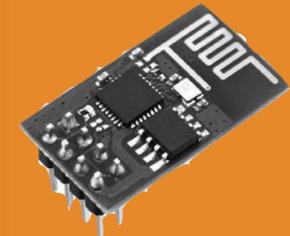
/ˈɔːlwaɪz/

Allwize aims to become the reference for anyone wanting to create connected devices using the **Wize** protocol by providing **solutions to connect things to the Internet** using the Wize technology.

How?

- Build a **community** of users around the Wize technology
- Provide Wize solutions that are **easy to use and affordable**
- Spread the reach of **Wize**: + users and + network infrastructure

Roadmap - products



K1+G1
Q4 2018

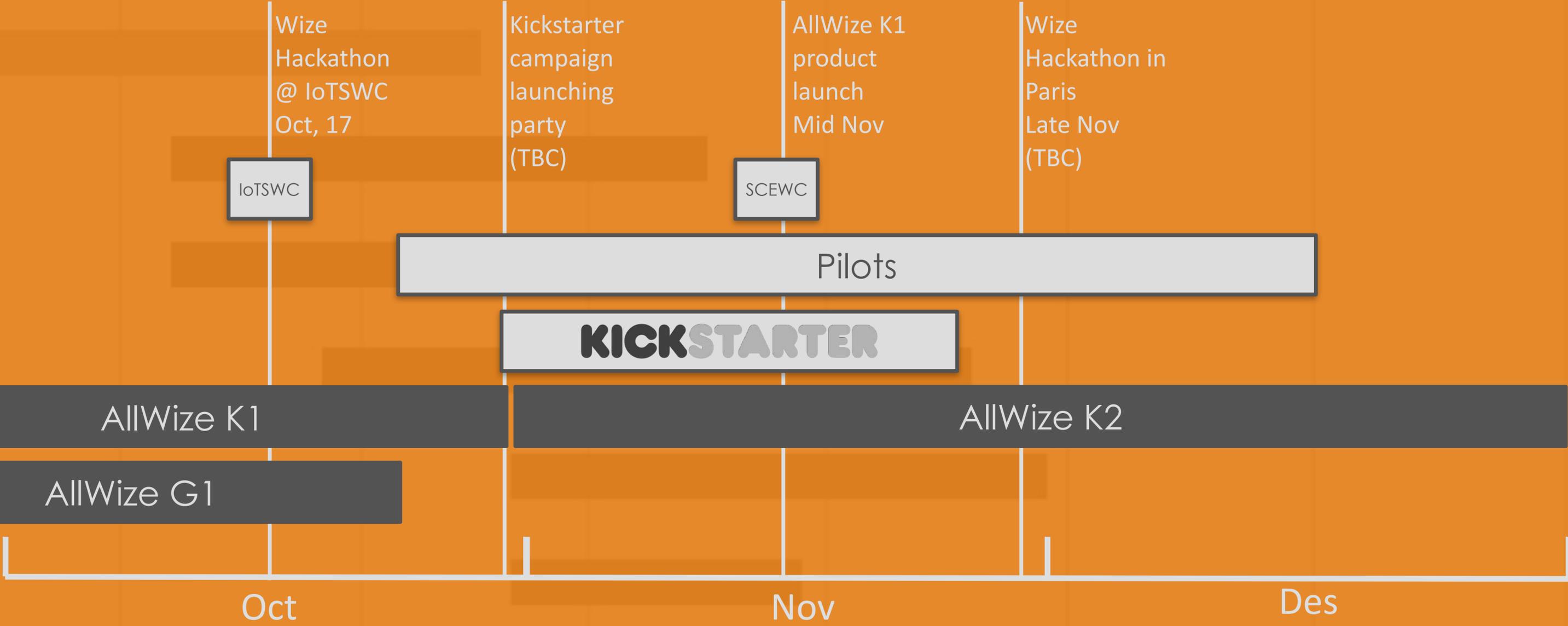


K2
Q1 2019



K3
H2 2019

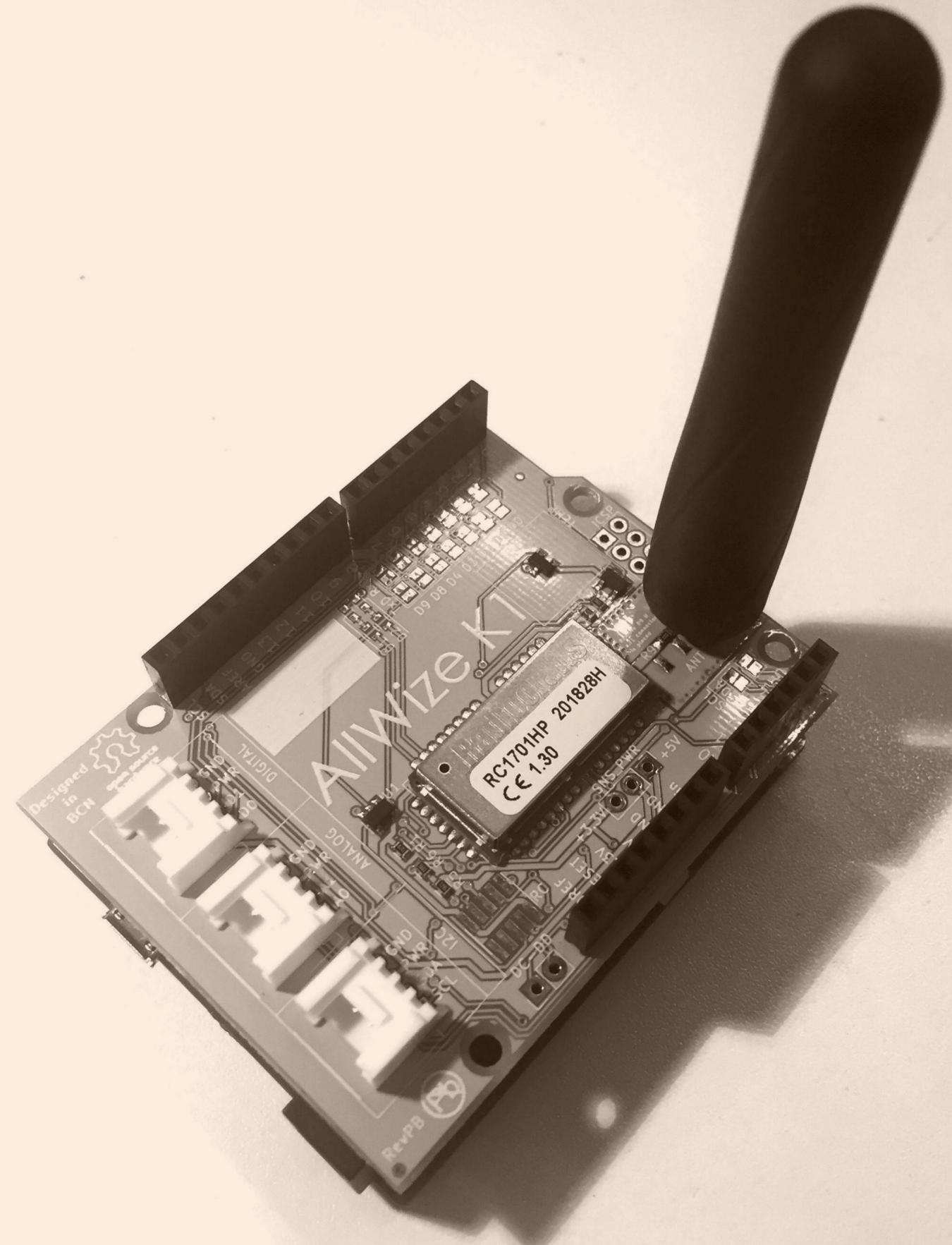
Roadmap - events & more



Presenting Allwize K1

Arduino Shield with Wize protocol

- ▶ **Wize** radio transceiver embedded
- ▶ **SMA** connector for antenna or pigtail
- ▶ Arduino **UNO** form factor (used by several other Arduino boards)
- ▶ **Temperature sensor** included + **3 Grove connectors** for other sensors and actuators
- ▶ **Low-cost gateway** implementation

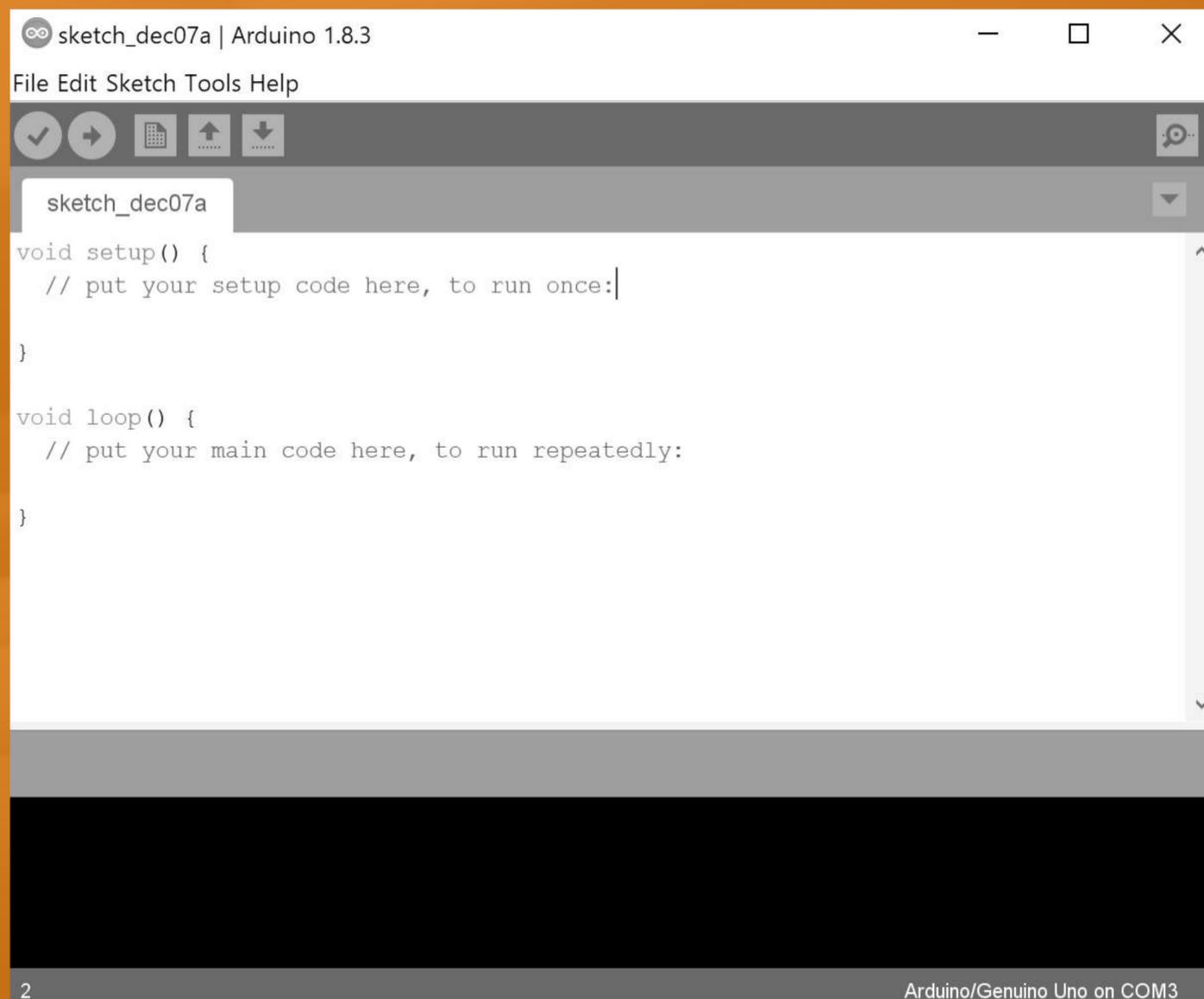


Why Arduino™

1. Open-source
2. Community
3. Easy to build - DIY
4. WE ARE MAKERS :)



IDE integration

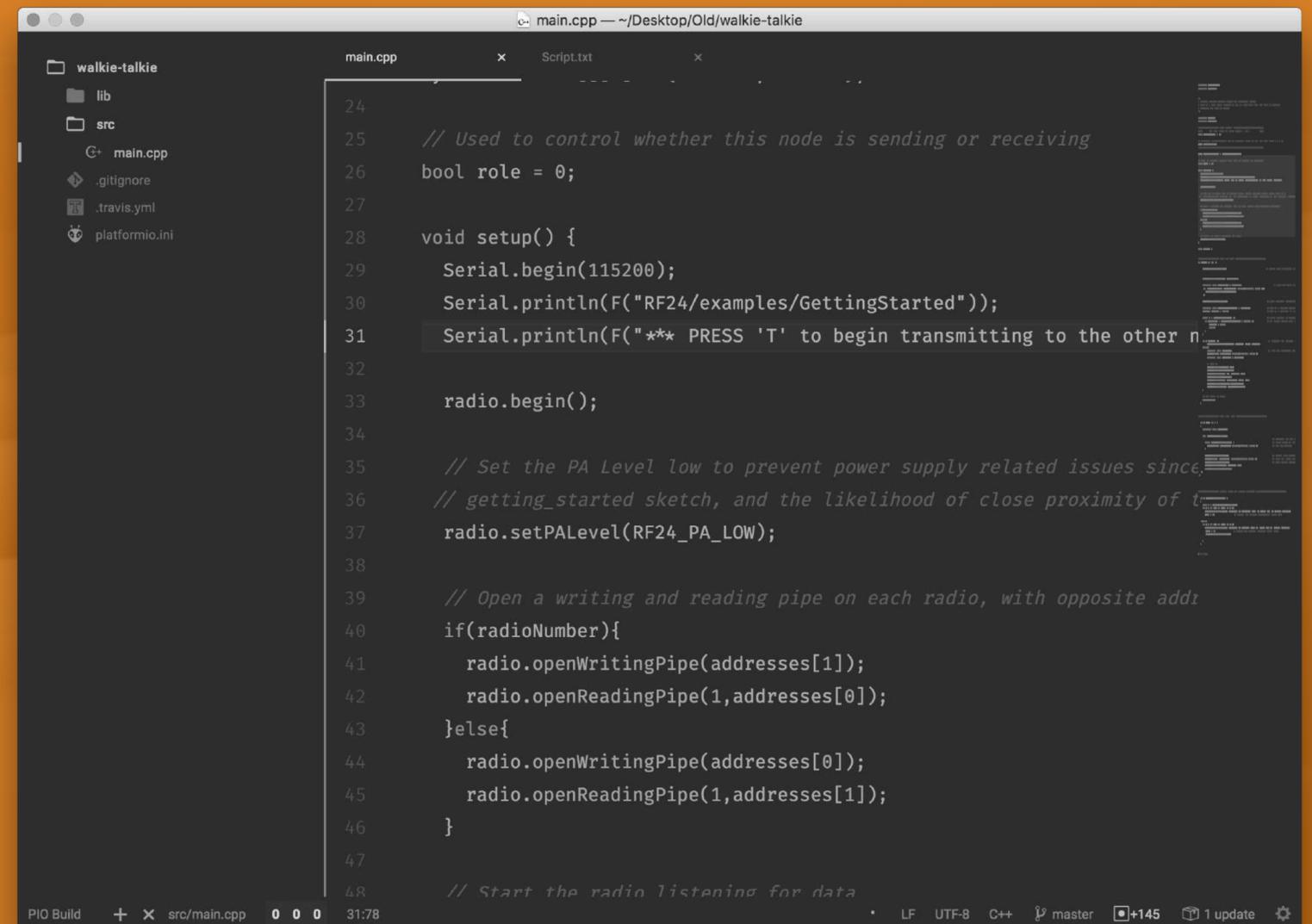


The screenshot shows the Arduino IDE window titled "sketch_dec07a | Arduino 1.8.3". The menu bar includes "File", "Edit", "Sketch", "Tools", and "Help". The toolbar contains icons for saving, running, uploading, and downloading. The sketch name "sketch_dec07a" is displayed in the top left. The main editor area contains the following code:

```
void setup() {  
  // put your setup code here, to run once:  
}  
  
void loop() {  
  // put your main code here, to run repeatedly:  
}
```

The status bar at the bottom indicates "2" on the left and "Arduino/Genuino Uno on COM3" on the right.

Arduino IDE



The screenshot shows the PlatformIO IDE window titled "main.cpp — ~/Desktop/Old/walkie-talkie". The file explorer on the left shows a project structure with folders "lib" and "src", and files "main.cpp", ".gitignore", ".travis.yml", and "platformio.ini". The main editor area shows the following code:

```
24  
25 // Used to control whether this node is sending or receiving  
26 bool role = 0;  
27  
28 void setup() {  
29   Serial.begin(115200);  
30   Serial.println(F("RF24/examples/GettingStarted"));  
31   Serial.println(F("*** PRESS 'T' to begin transmitting to the other n  
32  
33   radio.begin();  
34  
35   // Set the PA Level low to prevent power supply related issues since  
36   // getting_started sketch, and the likelihood of close proximity of t  
37   radio.setPALevel(RF24_PA_LOW);  
38  
39   // Open a writing and reading pipe on each radio, with opposite addi  
40   if(radioNumber){  
41     radio.openWritingPipe(addresses[1]);  
42     radio.openReadingPipe(1,addresses[0]);  
43   }else{  
44     radio.openWritingPipe(addresses[0]);  
45     radio.openReadingPipe(1,addresses[1]);  
46   }  
47  
48   // Start the radio listening for data
```

The status bar at the bottom shows "PIO Build", "src/main.cpp", "0 0 0", "31:78", "LF UTF-8 C++", "master", "+145", and "1 update".

PlatformIO

GitHub

Allwize / allwize Private

Watch 1

Star 0

Fork 0

Code

Issues 1

Pull requests 0

Wiki

Insights

Settings

AllWize Library

Edit

Add topics

39 commits

1 branch

0 releases

1 contributor

LGPL-3.0

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download

Allwize Add README files for each example

Latest commit 7b8ecd3 6 days ago

| | | |
|--------------------|--|--------------|
| examples | Add README files for each example | 6 days ago |
| src | Add hard RESET to all examples | 6 days ago |
| tests | Fix factoryReset timing | a month ago |
| .gitignore | Wize 2 MQTT example | a month ago |
| .travis.yml | Initial commit | 2 months ago |
| CHANGELOG.md | Autodocumentation with doxygen | 2 months ago |
| LICENSE | Initial commit | 2 months ago |
| README.md | Add README files for each example | 6 days ago |
| config.doxyfile | Update docs config file | 2 months ago |
| library.json | Initial commit | 2 months ago |
| library.properties | Tests & examples running on Arduino Zero and M0 Pro boards | a month ago |

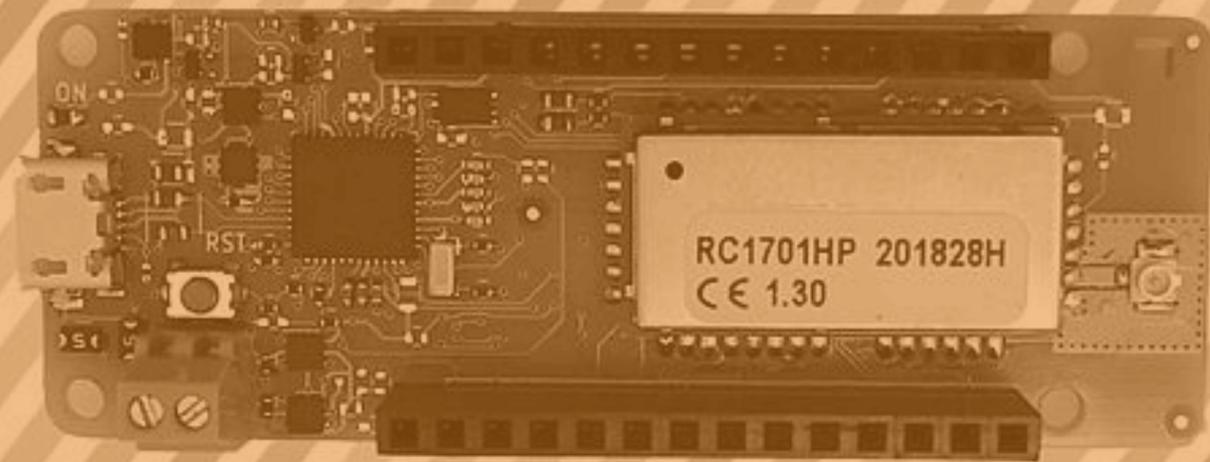
Pre-campaign



<http://allwize.io/kickstarter>

Coming soon on **KICKSTARTER**

Introducing the AllWize K2



- Connect objects to the brand new Wize technology.
- Multiple sensors to monitor movements, humidity, gas, etc.
- Open source and open hardware, based on Arduino architecture.
- A simple back-end solution to monitor anything you want.
- Extremely low power consumption, up to 20 years battery life.
- Long distance signal, up to 20 km.
- Deep indoor radio penetration.
- Flexible solution (no telco lock in, no chip vendor, self-operated).

Get informed

Be the first to get the AllWize K2!

CONNECT PACK TO TRY

2 boards to be connected to each other thanks to Wize!



x2

54€
70€

EARLY
BIRD

PARKING PACK TO TRY

2 boards, 2 MKR connector carrier, 2 ultrasonic & magnetic sensors so you can already start your smart parking application thanks to Wize!



x2

105€
133€

EARLY
BIRD

CONNECT PACK TO PLAY

10 boards to create a whole network of devices connected with the Wize technology!



x10

270€
350€

EARLY
BIRD

PARKING PACK TO PLAY

10 boards, 10 MKR connector carrier, 10 ultrasonic & magnetic sensors so you create your network for your smart parking application using Wize!



x10

525€
663€

EARLY
BIRD

GARDENING PACK TO TRY

2 boards, 2 MKR connector carrier, 2 humidity, moisture & temperature sensors so you can already create a smart garden using Wize!



x2

120€
151€

EARLY
BIRD

AIR CHECK PACK TO TRY

2 boards, 2 MKR connector carrier & 2 gas sensors so you can already start checking air quality using Wize!



x2

163€
204€

EARLY
BIRD

GARDENING PACK TO PLAY

10 boards, 10 MKR connector carrier, 10 humidity, moisture & temperature sensors so you create your network of IoT devices to create your smart garden using Wize!



x10

599€
755€

EARLY
BIRD

AIR CHECK PACK TO PLAY

10 boards, 10 MKR connector carrier & 10 gas sensors so you create your network to start checking air quality using Wize!



x10

813€
1018€

EARLY
BIRD

Get an early bird pack

Wize hackathon agenda

- 9:00 - 10:00 >>> Registration and introductions to the hackathon
- **10:00 - 10:30 >>> Coffee break and team up!**
- 10:00 - 13:00 >>> Each team creates an application made possible with AllWize
- 13:00 - 14:00 >>> Lunch window
- 14:00 - 17:00 >>> Finishing of applications
- 17:00 - 18:00 >>> Prepare your pitch!
- 18:00 - 18:30 >>> Pitch competition
- 18:30 - 19:00 >>> Prize giving & networking

AllWize team today



Alice - Organisation and coordination



Xose - MC and technical support



Marc - Technical support

Competition jury



Patrick Cazein

Product line Manager at Sagemcom
Member of the Wize Alliance's Marketing
and Communication Committee



Alain Désandré

Head of Smart Metering at GRDF
Head of Technical Committee of the
Wize alliance



Arnaud Philibert

Business developer at Edel Energy
Member of the Wize Alliance



David Hernández

CEO of Aqualogy - Suez Group
Member of the Wize alliance