Wize hackathon

Create a LPWA IoT prototype using the new Wize technology

IOT SOLUTIONS WORLD CONGRESS

Oct 17, 2018

WizeAlliance

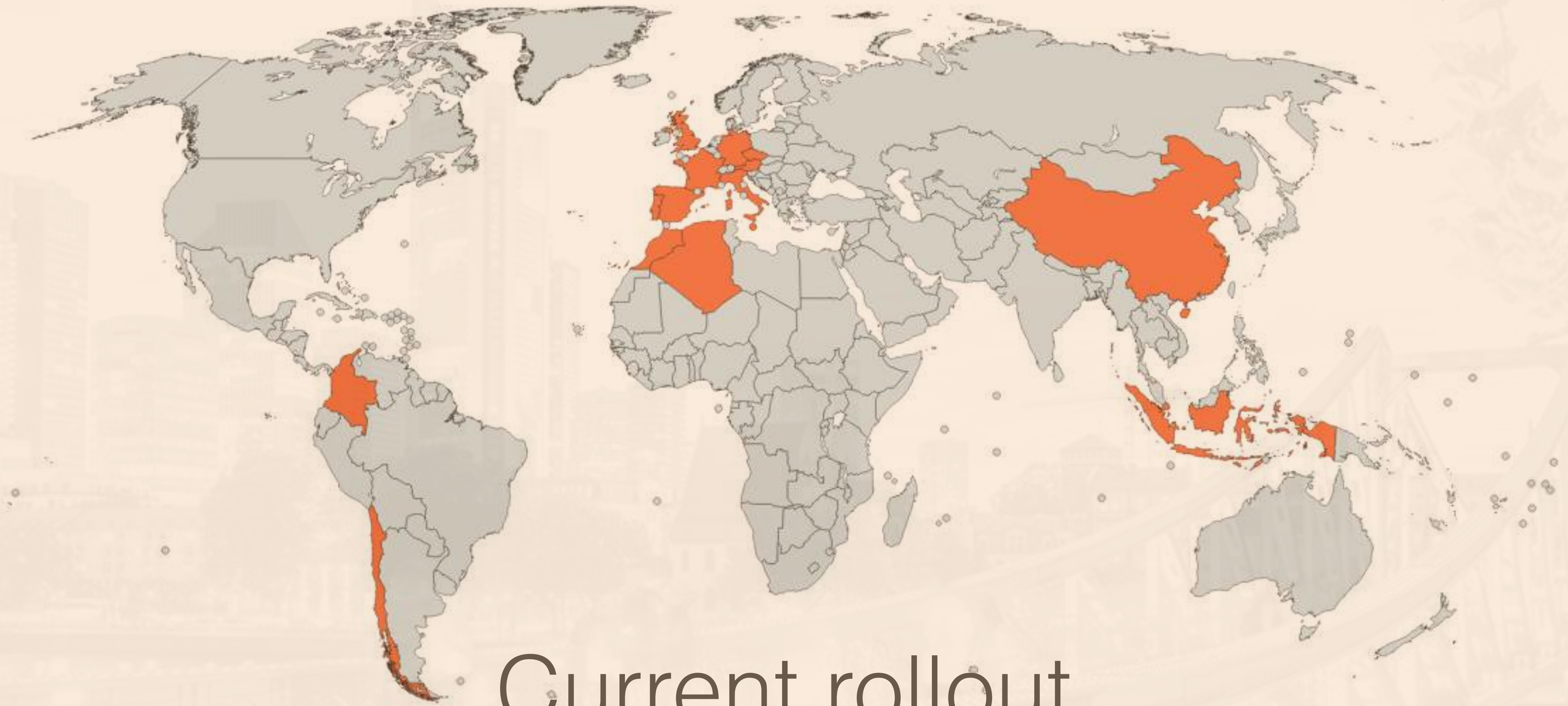
Welcome

François Moreau - Head of Development Committee

LPWAN


sigfox
Make Things Come Alive
ingenu
connected by
waviot
LoRa™
LoRaWAN™
ADAPTRUM
NB-
IoT
WEIGHTLESS™

- 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

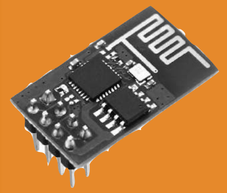
/ˈɔːlwaɪz/

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

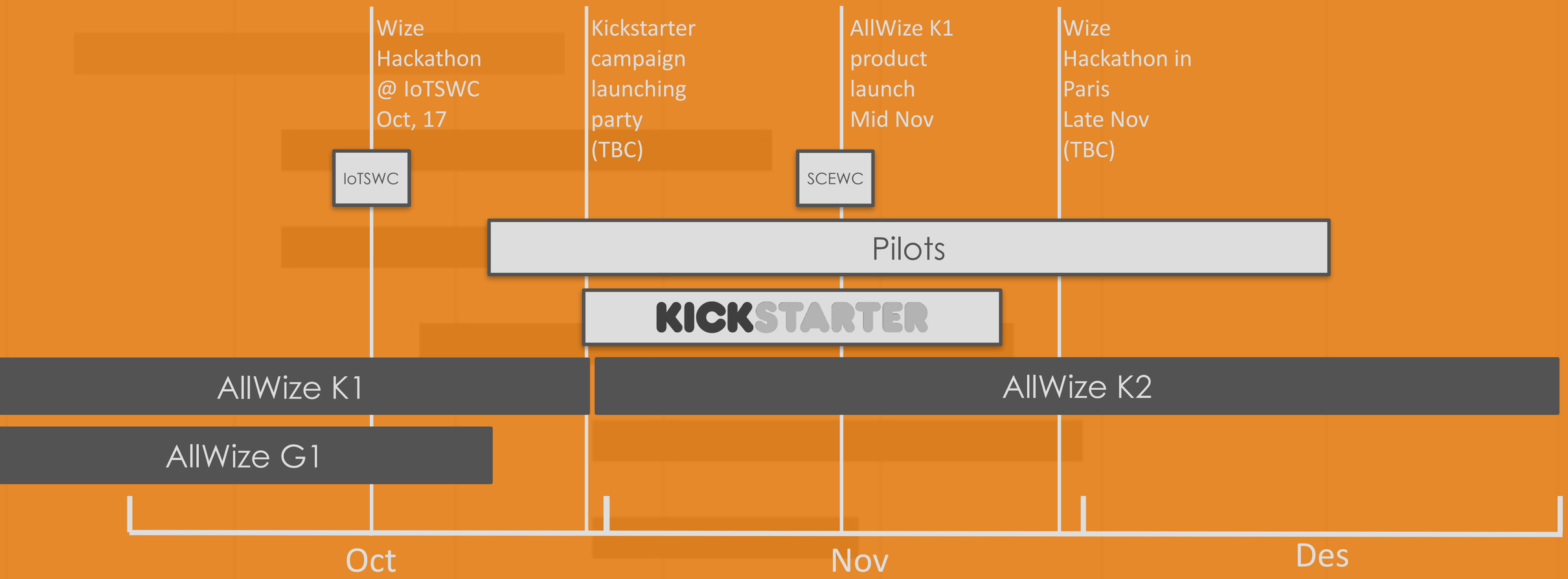


K1+G1
Q4 2018

K2
Q1 2019

K3
H2 2019

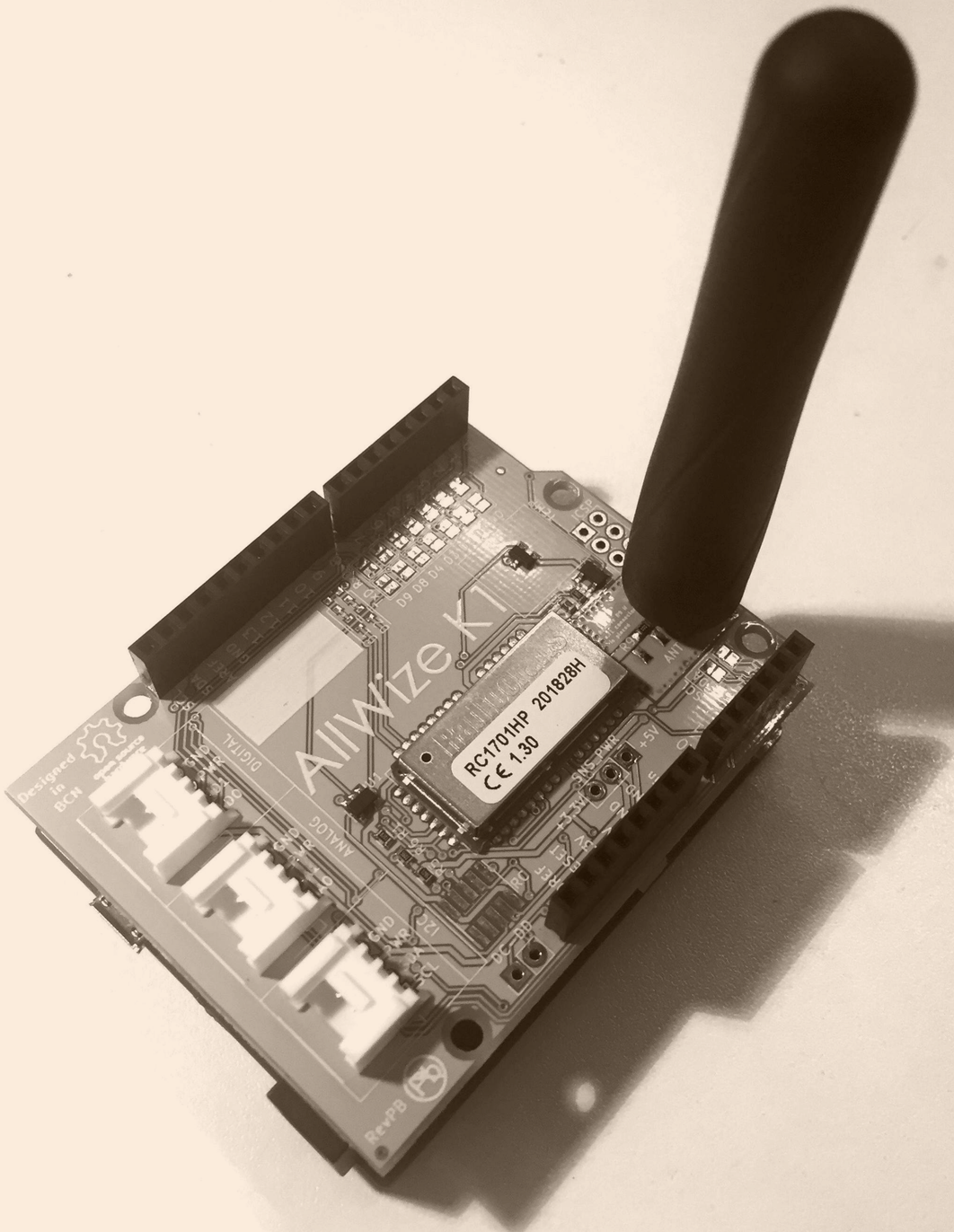
Roadmap - events & more



Presenting Allwize K1

Arduino Shield with Wize protocol

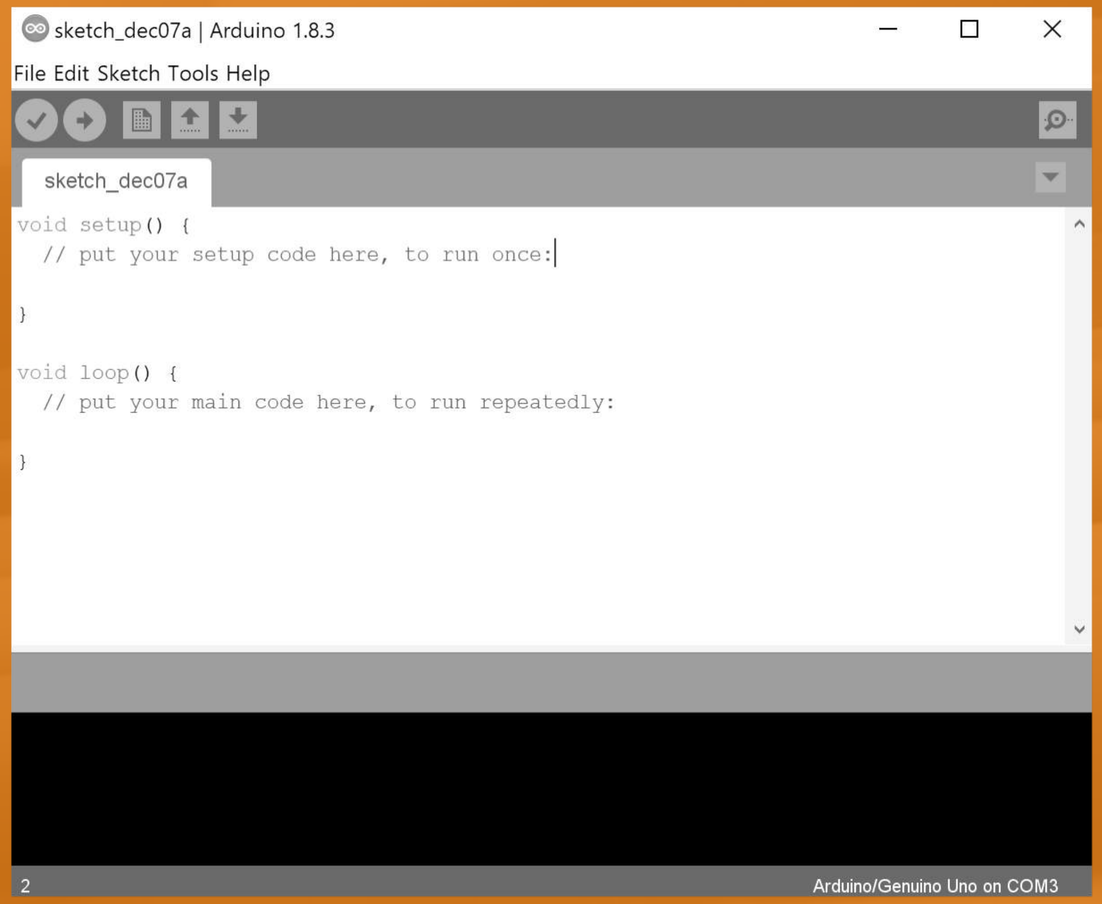
- **Wize** radio transceiver embedded
- **SMA** connector for antena or pigtail
- Arduino **UNO** form factor (used by several other Arduino boards)
- **Temperature sensor** included + **3 Grove connectors** for other sensors and actuators
- **Low-cost gateway** implementation



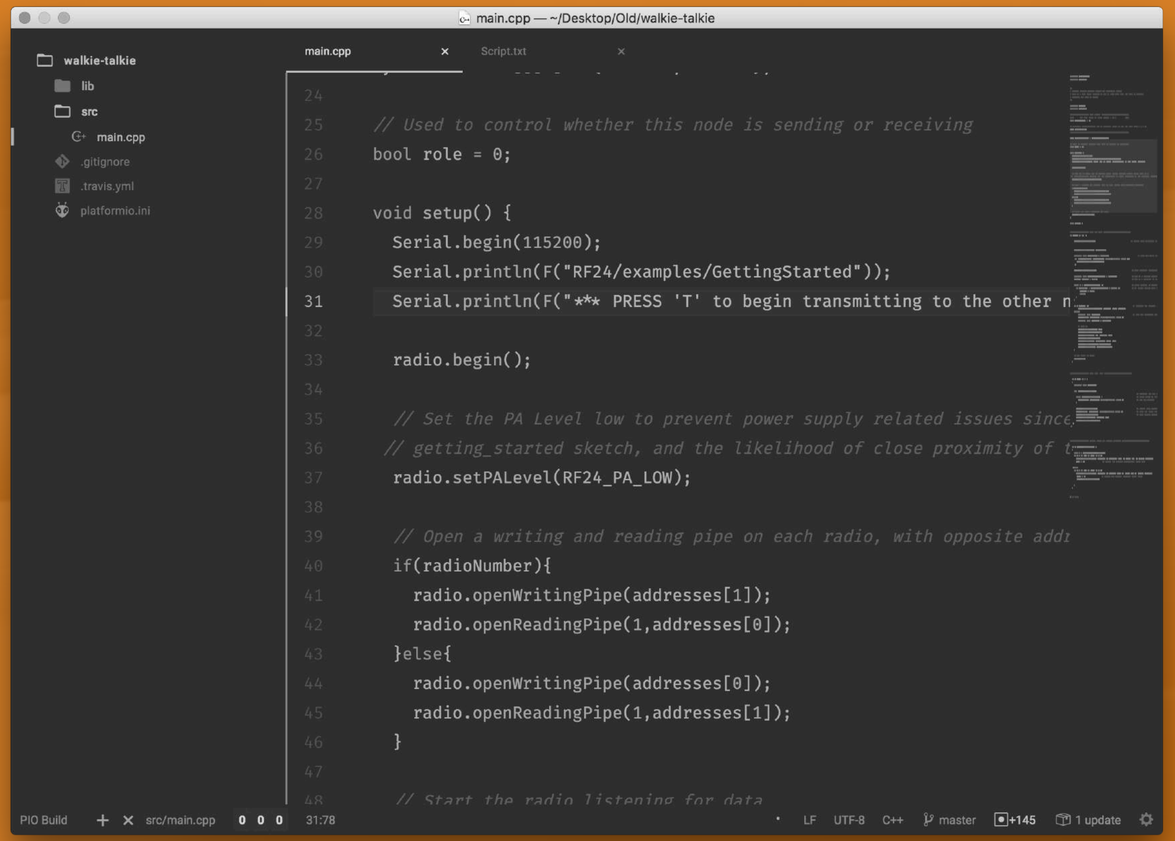
Why Arduino™

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

IDE integration

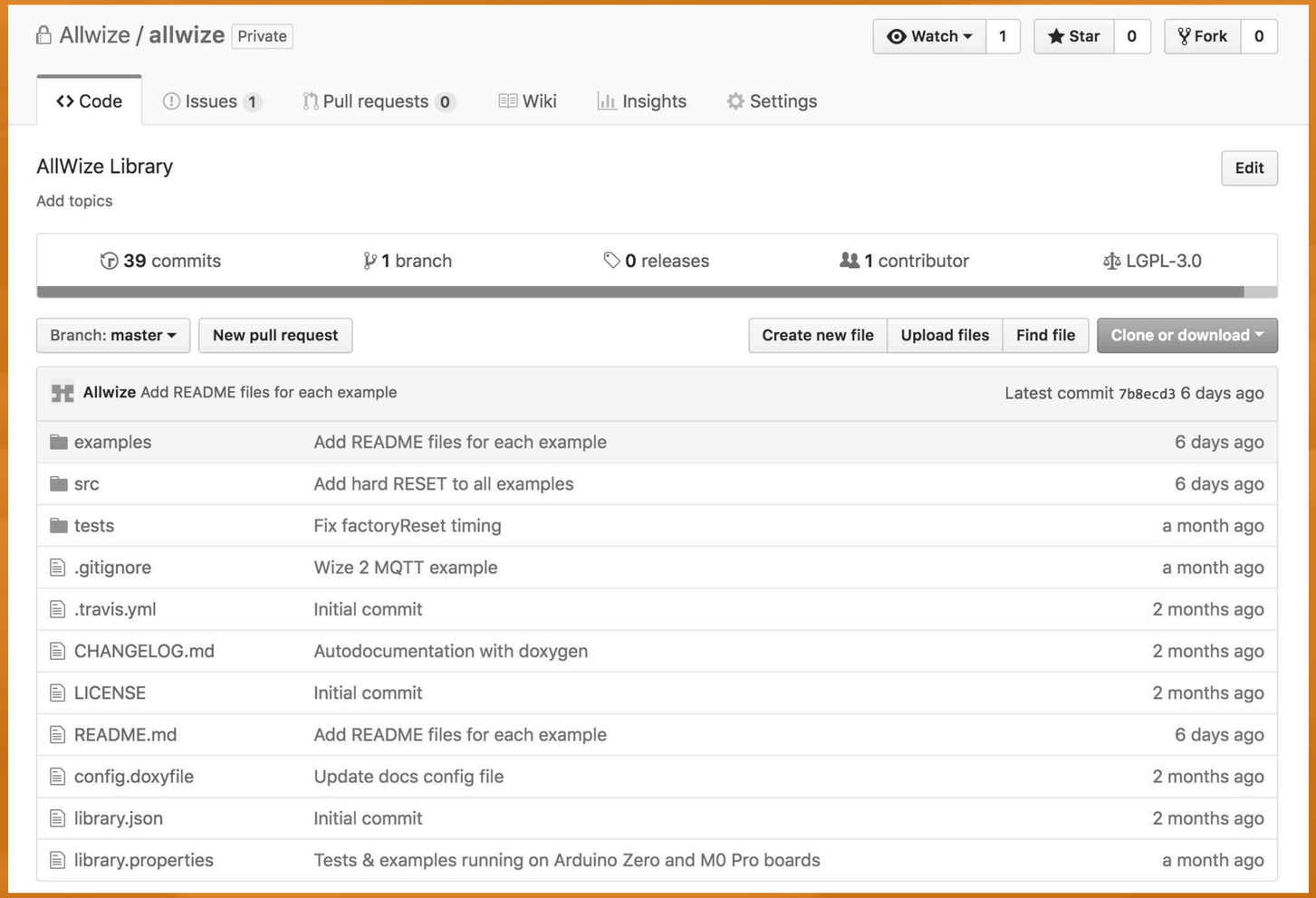


Arduino IDE



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

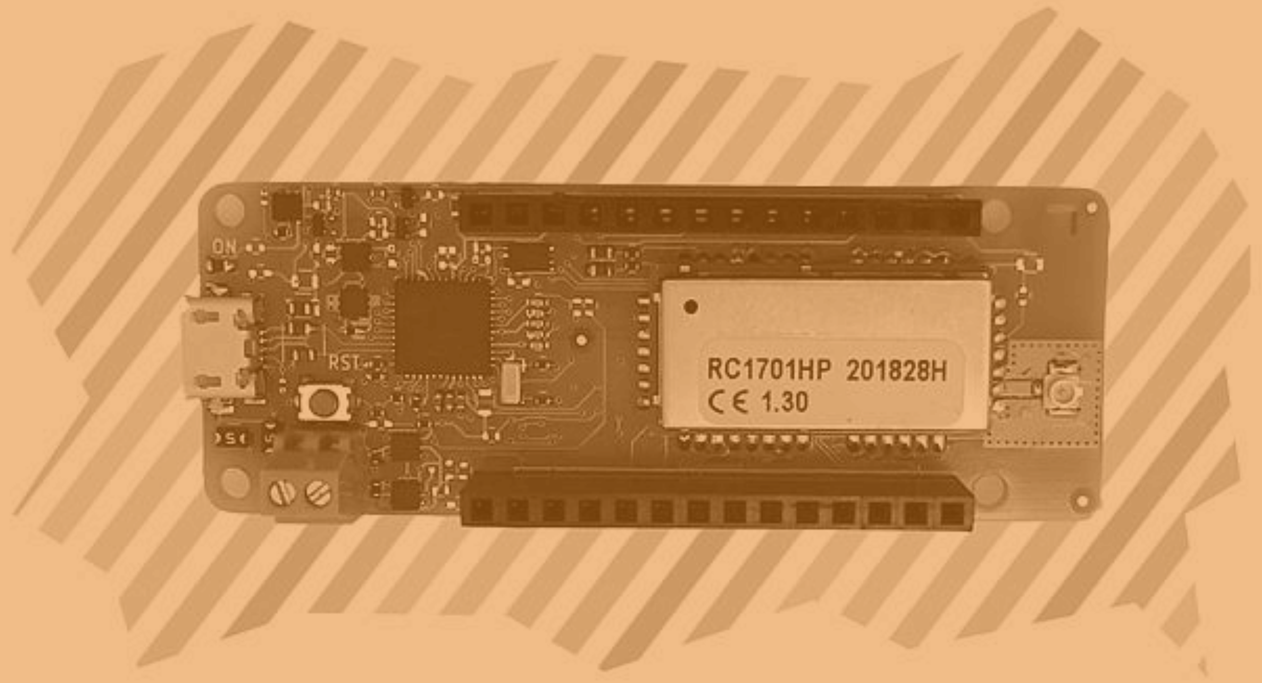
AllWize

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

CONNECT PACK TO PLAY

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

x10

270€

~~350€~~

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

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

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

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

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

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