# Temperature Sensor

**IoT Project Presentation** 

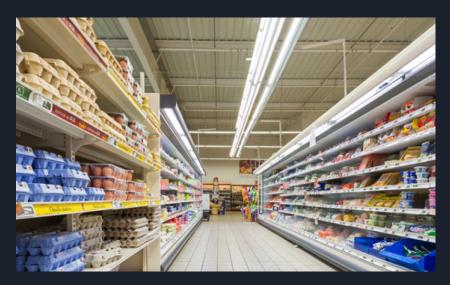
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#### Project Proposition

#### Temperature sensor who sends informations and data with LoRa technology

- Existing uses
- Real retail problem
- Security issues

#### Retail





Supermarket

#### Retail problems

• Too big

Not connected

• Wrong Network -> No security

• High power consumption



#### IoT Solutions

• Temperature Sensor : DS18B20 sensor



#### IoT Solutions

- LoRa Module
  - o Low-power wide-area network technology

SOLUTION: ESP32



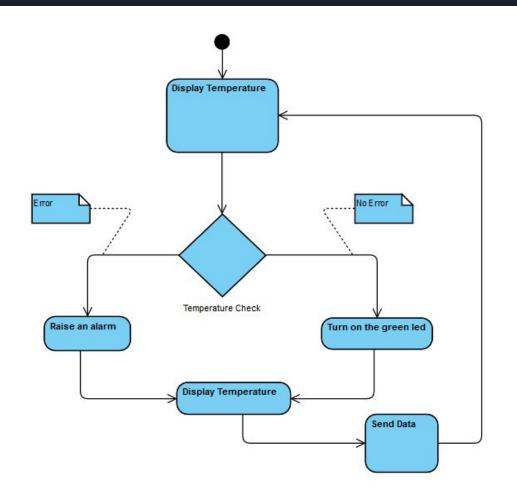
#### IoT Solutions

Cluster

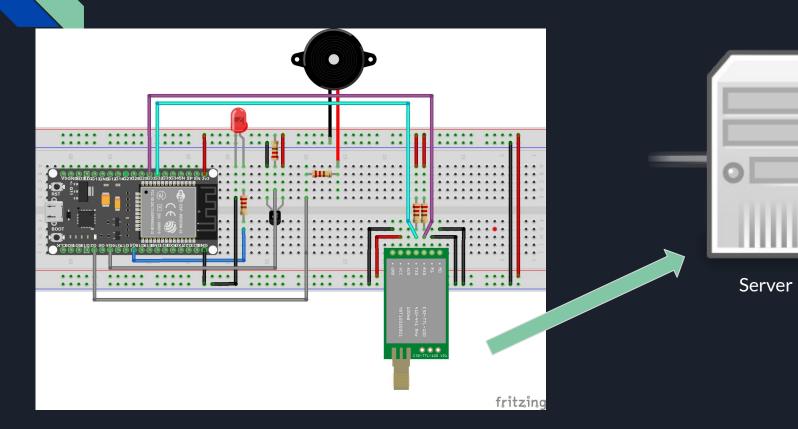
• Cool chain and Retail Industry

Norms and regulations:

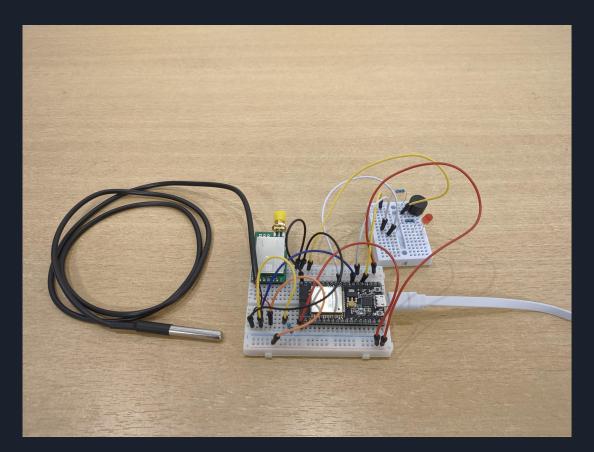
• Data security management



### Fritzing sketch



## IoT project



## Questions