IOT HUB CONNECTED TO A CLOUD (FRONT END)

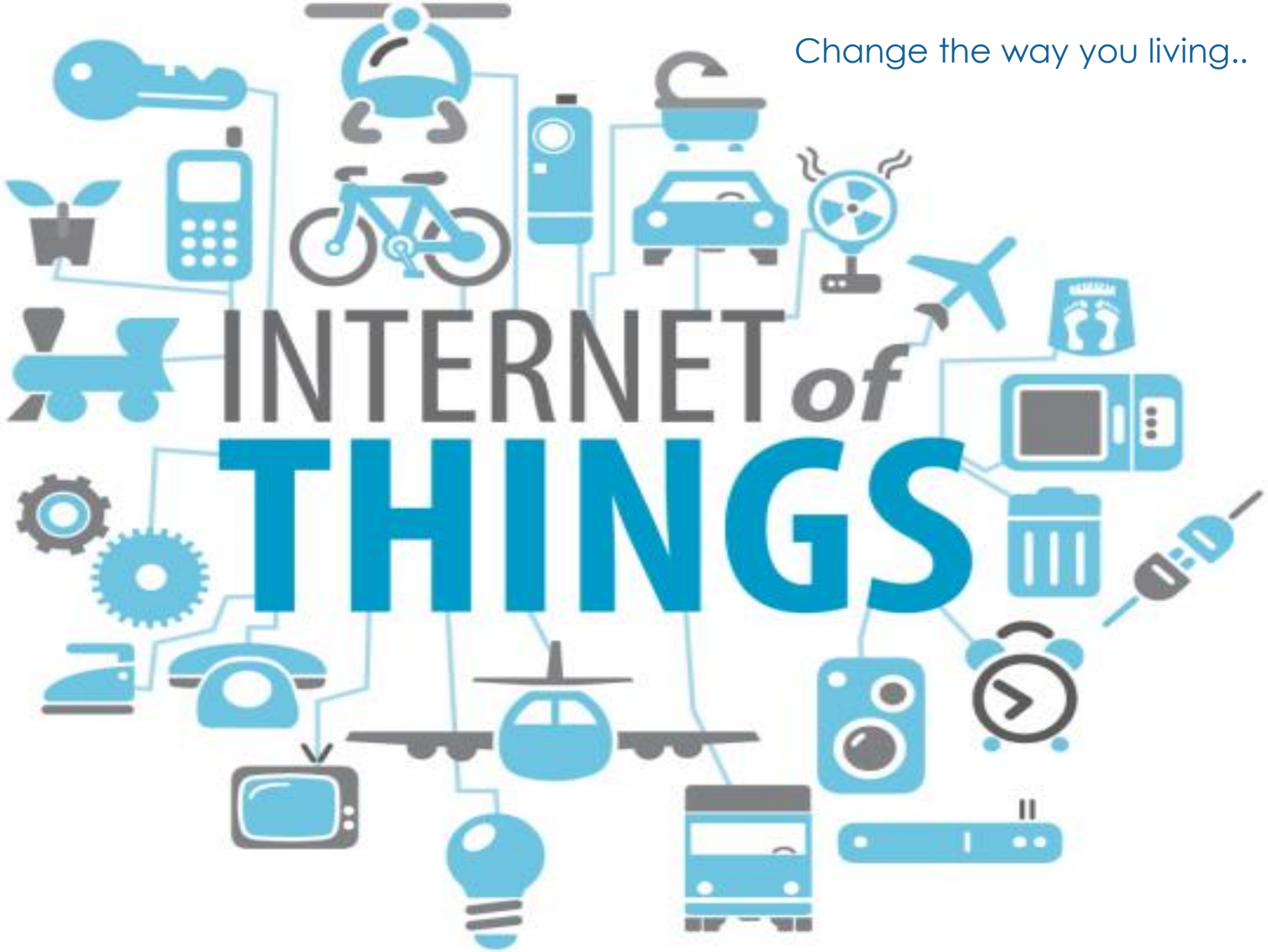
Project Group 16

E/12/162

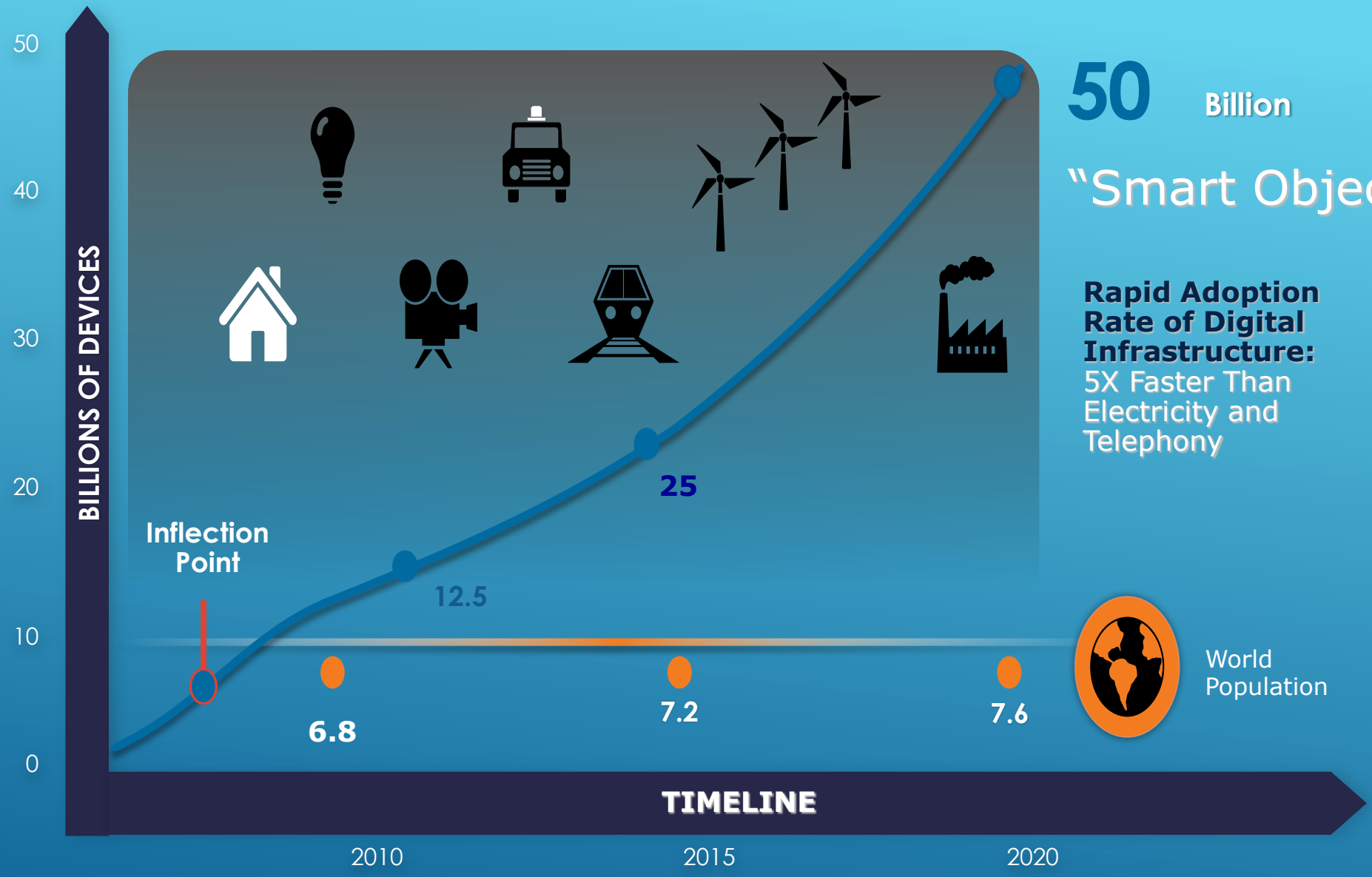
E/12/302

E/12/376

Change the way you living..



IOT IS HERE AND GROWING …



50 **Billion**

"Smart Objects"

Rapid Adoption Rate of Digital Infrastructure: 5X Faster Than Electricity and Telephony

BIG PICTURE

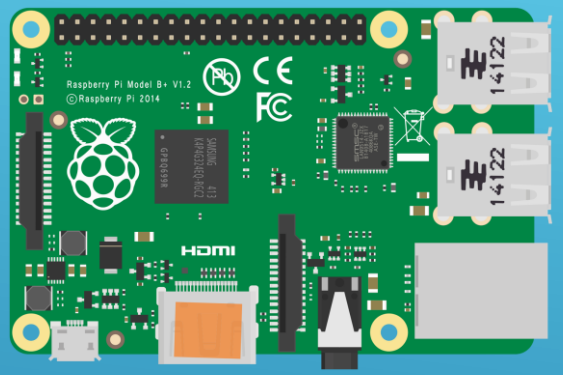
Client Side

Server Side

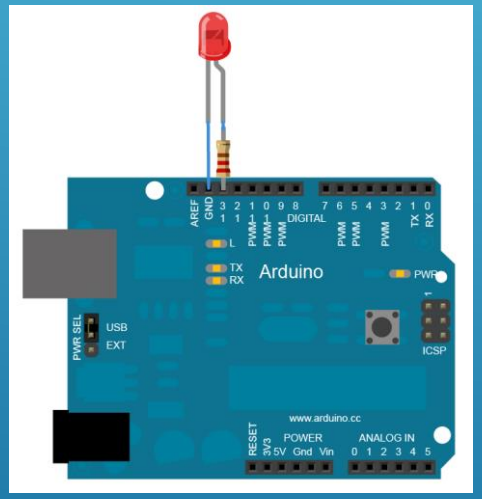
IOT hub and devices

BIG PICTURE (BASIC DIAGRAM)

HUB



Hub



Device

Cloud Server

OBJECTIVES

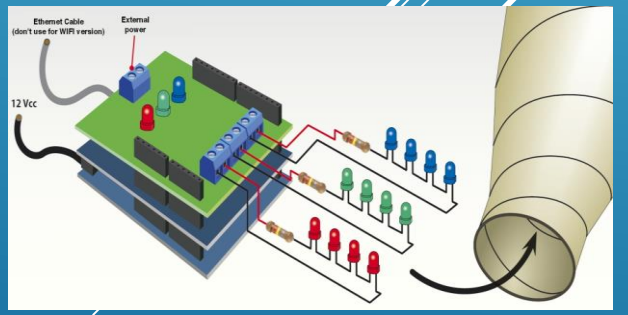
- Make an Iot Hub which is modularized as far as possible.
- Each component can be work independently
- Able to replace with modified model without disturbing other components
- Able to communicate through Wi-Fi, Ethernet, USB, Bluetooth
- Which support standard discovery protocol such as upnp, zigbee.

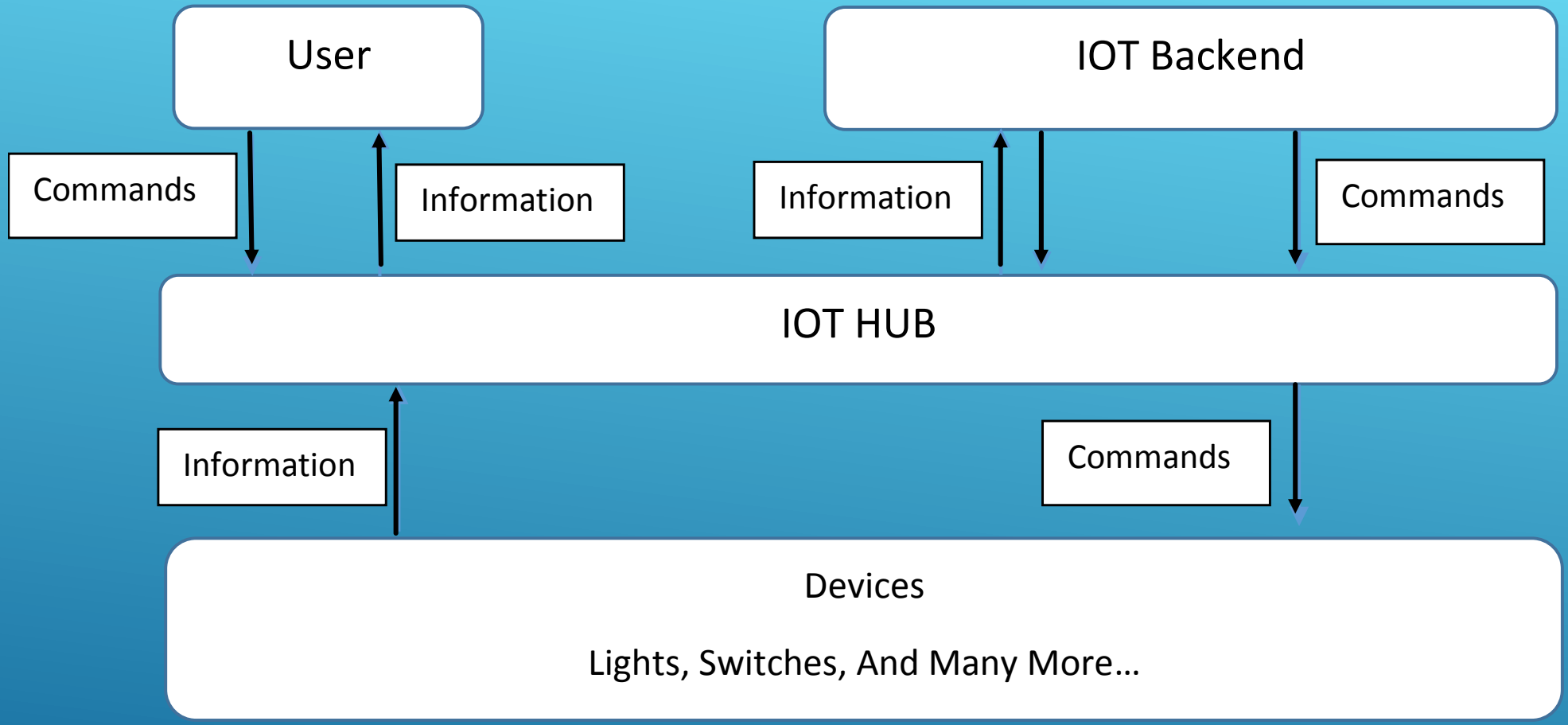
Establishing MQTT Protocol to Communication

Initiating the communication With any Backend

Finalization Of the Project

WHAT WE HAVE DONE IN SECOND ITERATION (IOT HUB)

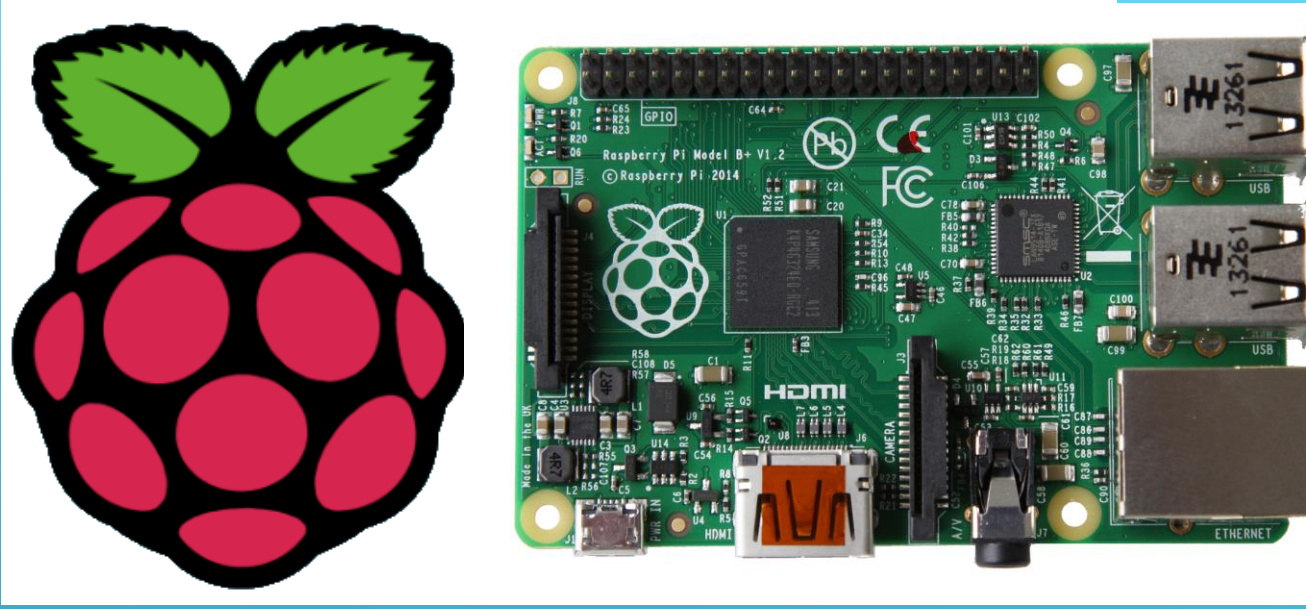


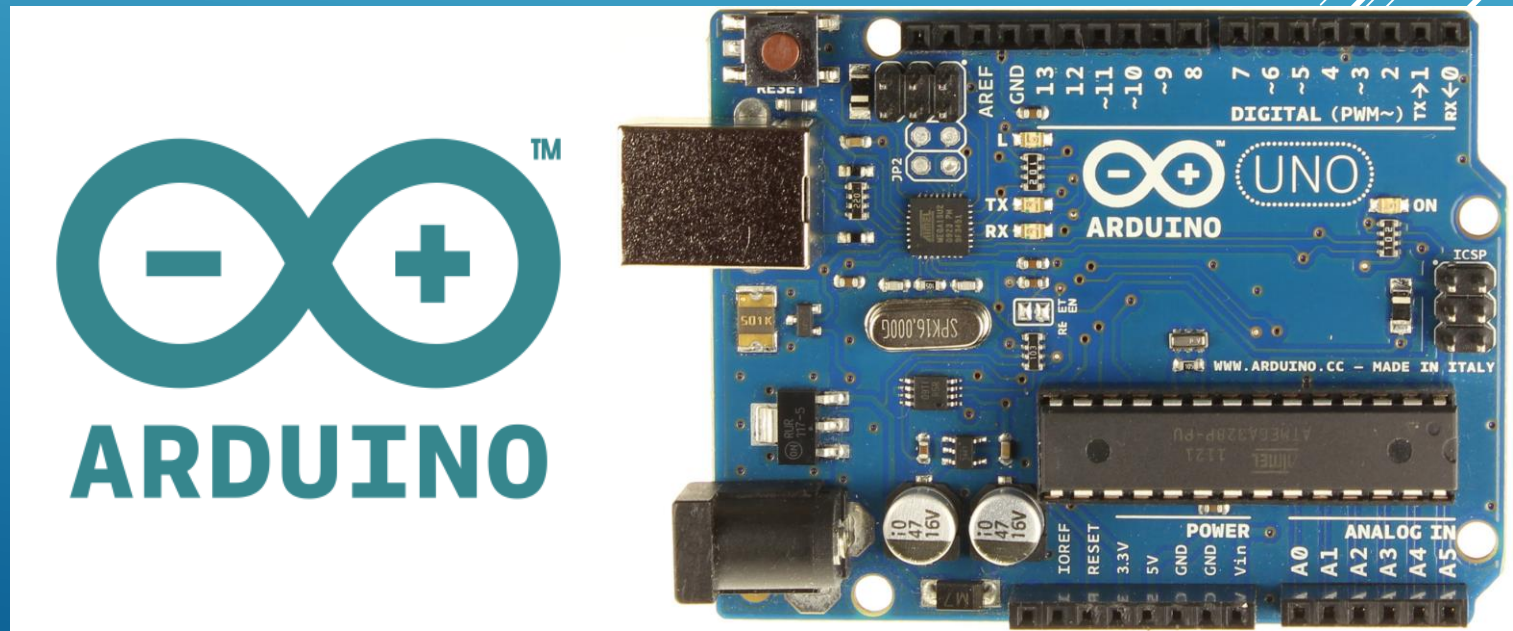


ARCHITECTURE

RESOURCES

- Raspberry Pi 2
- Arduino
- Wi-Fi Shield
- Ethernet Shield





TECHNOLOGIES AND TECHNIQUES

- Arduino IDE
- Python
- Android Studio
- Raspbian OS
- cloudMQTT for testing as the Backend when developing the HUB
- Used testing tools like Postman
- Wi- Fi , Ethernet ,Bluetooth

IMPLEMENTATION…

Q & A