The Things Network.cat

Introducció dels alumnes al món de la IoT

21.11.2019

Institut Rambla Prim

Xarxa oberta i comunitària per
la Internet de les Coses

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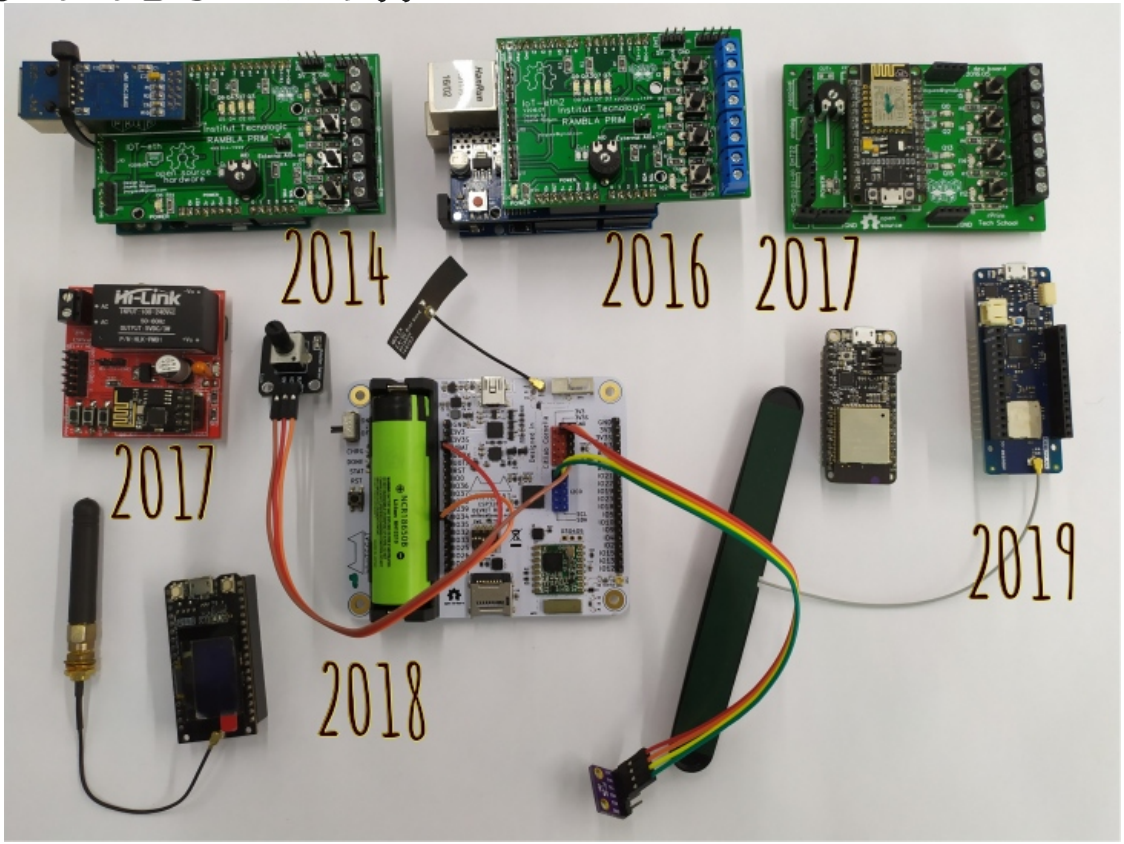
@rPrimTech
Jaume Nogués

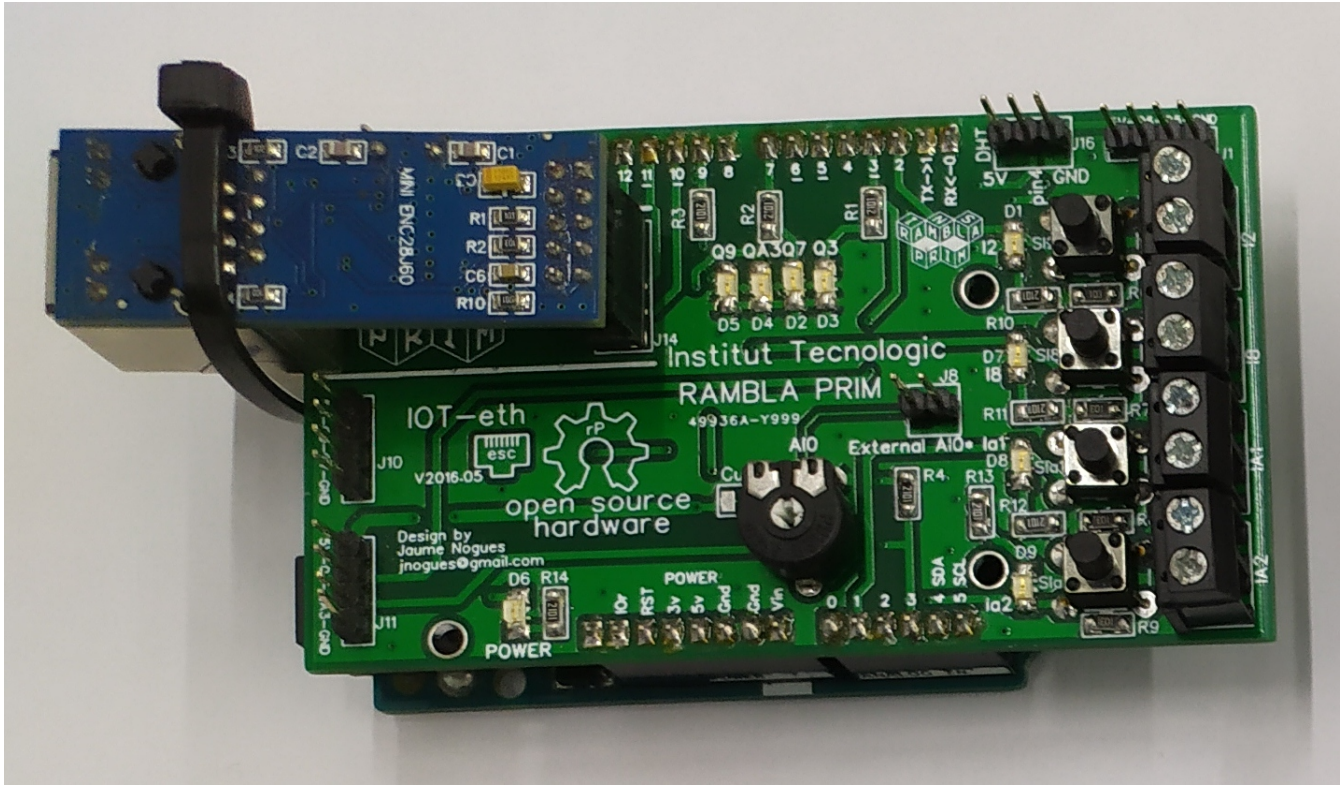
@PrimRobotics
Jordi Clua

Una mica d'història

5 ANYS CONNECTATS!!



UNO + ENC28J60 (2014)



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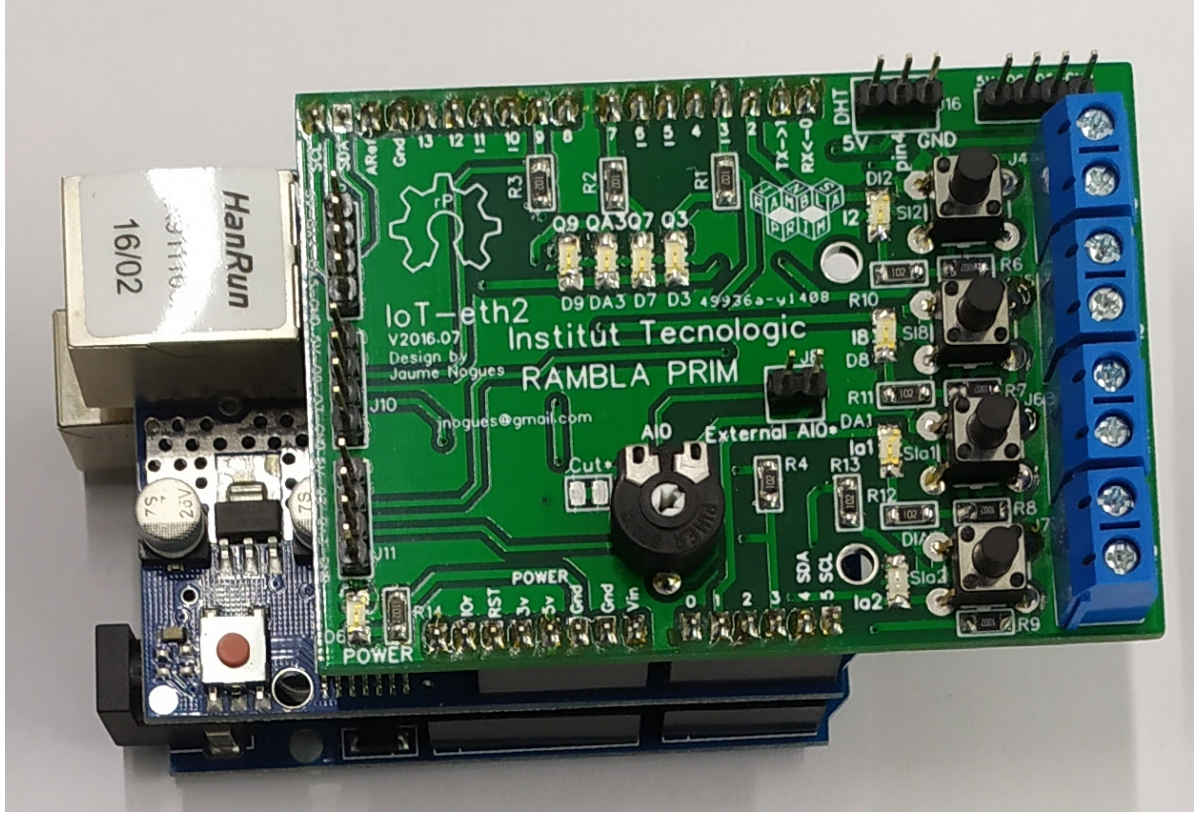
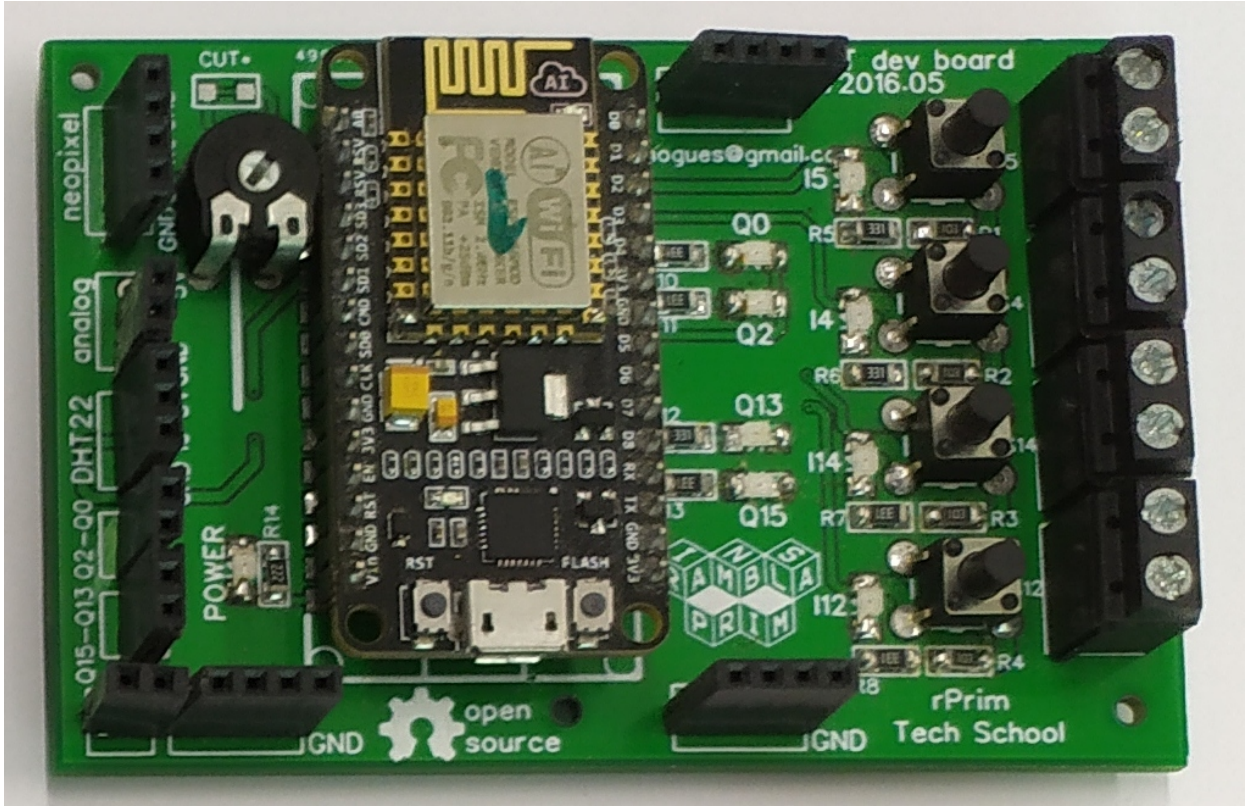
UNO + WIZNET W5100 (2015)



NodeMcu ESP8266 (2016-17)



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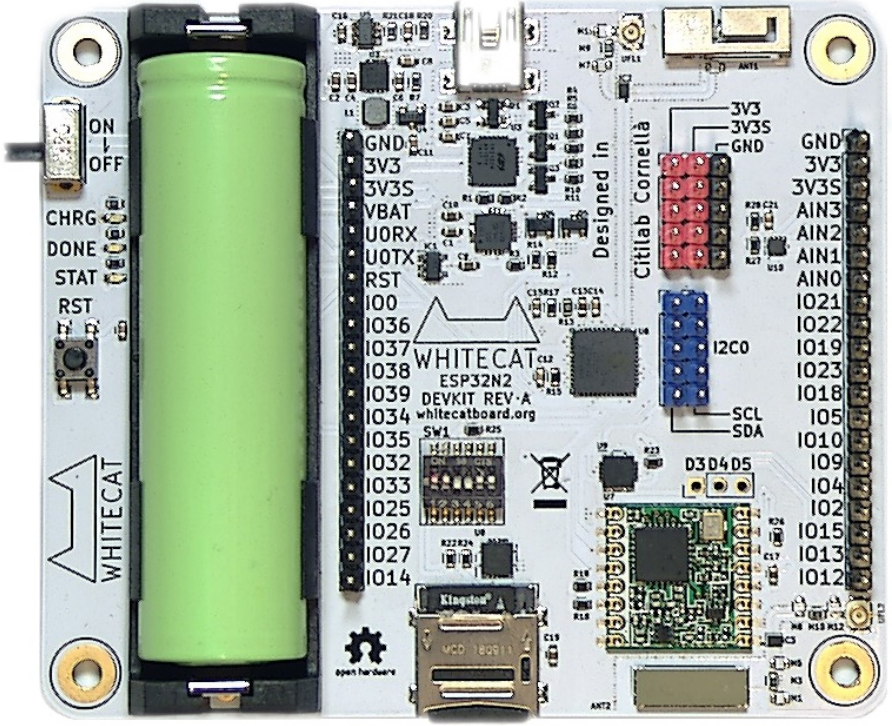
WiFi

ESPRESSIF

ESP-01 (2017)


Hi-Link
-Vo
AC
AC
INPUT:100-240VAC
50-60Hz
OUTPUT:5VDC/3W
P/N:HLK-PM01
+Vo
RX-TX-GND
330
Ai-Cloud Inside

WHITECATBOARD I TTGO (2018)



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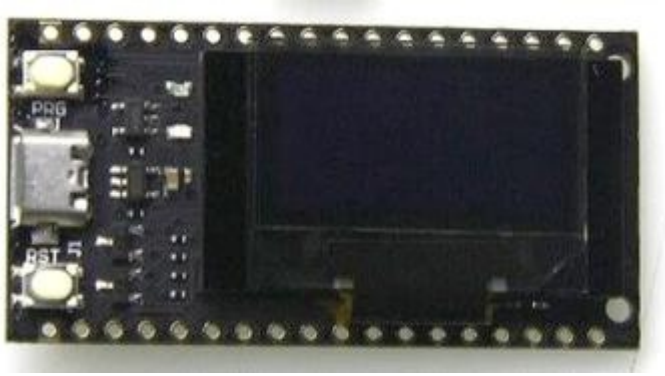
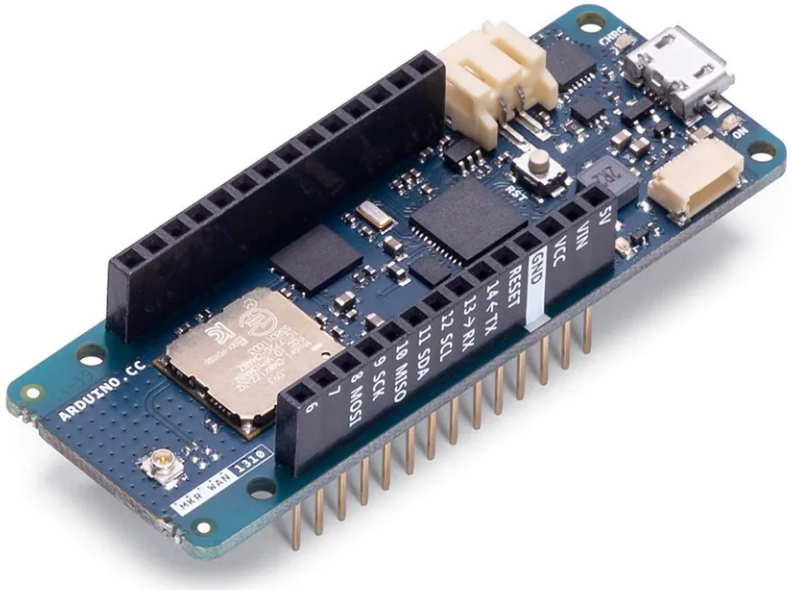
Wi Fi

LoRa™

Altres (2019)





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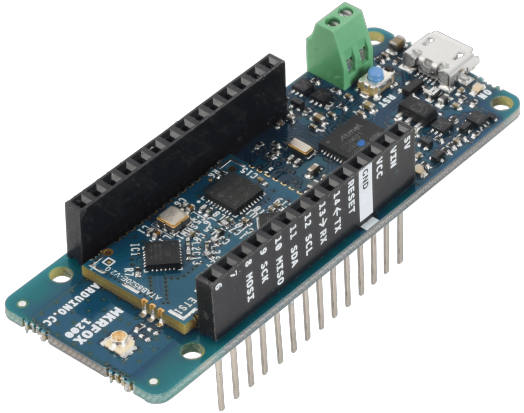
Wi Fi

LoRa™

AVIAT EN MARXA (2020)



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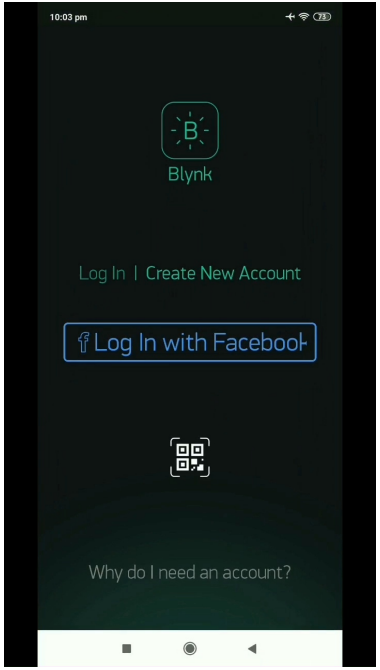
AllWize

sigfox

Fem-ho fàcil!
Ethernet i wifi amb Blynk

App pel mòbil amb Blynk

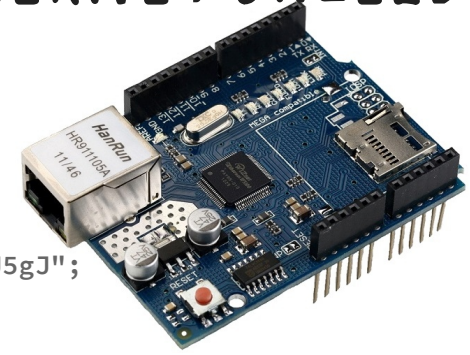


Arduino Uno + enc28j60 shield + Blynk

```
#define BLYNK_PRINT Serial

#include <UIPEthernet.h>
#include <BlynkSimpleUIPEthernet.h>

char auth[] = "gKSInbCx1iFZ-Yn6o3j3l-pUeHLbJ5gJ";

byte arduino_mac[] = { 0xDE, 0xED, 0xBA, 0xFE, 0xFE, 0xEA };


void setup()
{
  // Debug console
  Serial.begin(115200);

  Blynk.begin(auth, "blynk-cloud.com", 80, arduino_mac);
}

void loop()
{
  Blynk.run();
}
```

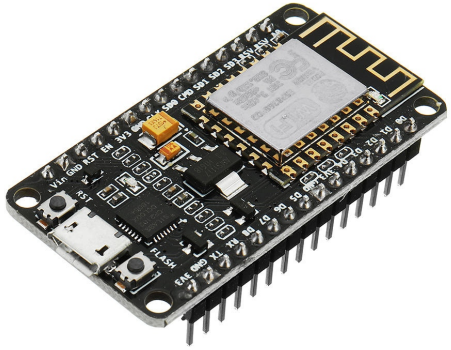
Arduino Uno + ethernet shield + Blynk

```
#define BLYNK_PRINT Serial

#include <SPI.h>
#include <Ethernet.h>
#include <BlynkSimpleEthernet.h>

char auth[] = "gKSInbCG1irZ-Yn6oej3l-pU4HLWJ5gJ";

#define W5100_CS  10
#define SDCARD_CS 4

byte arduino_mac[] = { 0xDE, 0xED, 0xBA, 0xFE, 0xFE, 0xEE };

void setup()
{
  Serial.begin(115200);
  Blynk.begin(auth, "blynk-cloud.com", 80, arduino_mac);
}

void loop()
{
  Blynk.run();
}
```



NODEMCU + BLYNK

```
#define BLYNK_PRINT Serial

#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>

char auth[] = "Yaiq7cHCkwywanofpR_rViPfypW9Ah_Q";

char ssid[] = "kk";
char pass[] = "dembele1";

void setup()
{
  Serial.begin(115200);

  Blynk.begin(auth, ssid, pass);
}

void loop()
{
  Blynk.run();
}
```



HUZZAH32 + BLYNK

```
#define BLYNK_PRINT Serial

#include <WiFi.h>
#include <WiFiClient.h>
#include <BlynkSimpleEsp32.h>

char auth[] = "uvN_2gm9bOByHn5Vbv7y1uZVKkIrgyGK";

char ssid[] = "kk";
char pass[] = "dembele1";

void setup()
{
  Serial.begin(115200);

  Blynk.begin(auth, ssid, pass);
}

void loop()
{
  Blynk.run();
}
```