

FEM-HO FÀCIL!

MQTT



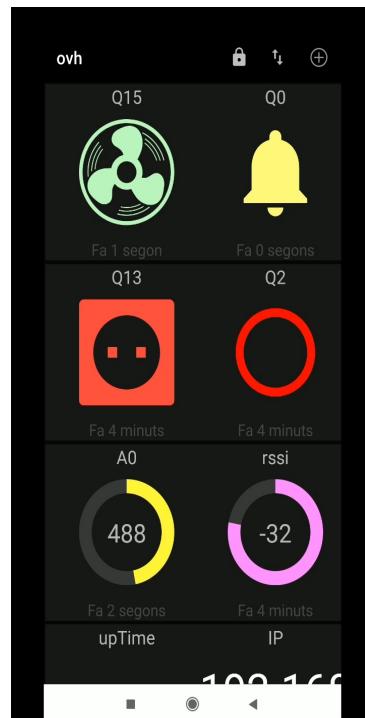
THE THINGS
NETWORK
CATALUNYA

ESPurna + MQTT DASH

ESPurna Firmware

ESPurna ("spark" in Catalan) is a custom firmware for ESP8265/ESP8266 based smart switches, lights and sensors. It uses the Arduino Core for ESP8266 framework and a number of 3rd party libraries.

version 1.14.0-dev branch dev license GPL-3.0 build passing code quality A
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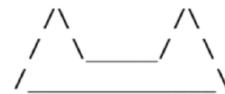
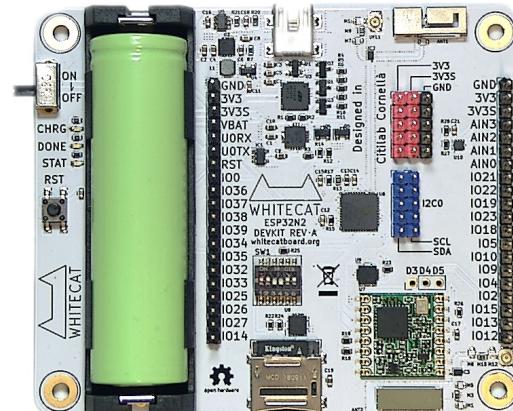
THE THINGS
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WHITECARBOARD + MQTT

```
when board starts
do start Wi-Fi
set comptador to 0
```

```
every 5 seconds
do invert digital pin IO5 - GPIO5
```

```
every 10 seconds
do change comptador by 1
print comptador
publish comptador to topic "/ttncat/comptador" with QOS0
```



W H I T E C A T



THE THINGS
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WHITECARBOARD + MOTT

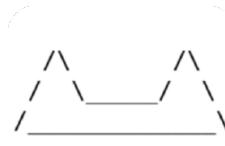
TEMPERATURE & HUMIDITY MQTT NODE

```
? when board starts
do print free memory
set uptime to 0
set wifiOK to 1
try start Wi-Fi
catch stop Wi-Fi
print "error wifi"
when Wi-Fi is connected
do print "wifiOK---"
set wifiOK to 0
when Wi-Fi is disconnected
do print "wifiOK "
```

```
every 10 seconds
do change uptime by 10
if wifiOK = 1
do print "reconnecting.."
try start Wi-Fi
catch stop Wi-Fi
```

```
every 10 seconds
do try set T22 to round read temperature from sensor0 (DHT22)
print T22
set H22 to round read humidity from sensor0 (DHT22)
print H22
catch print "--error dht22--"
finally print "seguim"
try set T11 to round read temperature from sensor1 (DHT11)
print T11
set H11 to round read humidity from sensor1 (DHT11)
print H11
catch print "--error dht11--"
finally print "seguim"
```

```
every 22 seconds
do try print "sending mqtt"
publish T22 to topic "/salo/wc-3/T22" with QOS0
wait 1 milliseconds
publish H22 to topic "/salo/wc-3/H22" with QOS0
wait 1 milliseconds
publish T11 to topic "/salo/wc-3/T11" with QOS0
wait 1 milliseconds
publish H11 to topic "/salo/wc-3/H11" with QOS0
wait 1 milliseconds
publish uptime to topic "/salo/wc-3/uT" with QOS0
catch print "error mqtt"
```



W H I T E C A T



FEM-HO FÀCIL!

TTN AMB WHITECATBOARD



THE THINGS
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WHITECARBOARD + TTN

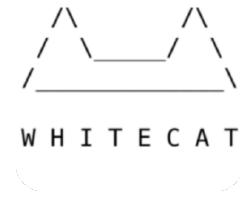
Whitecatboard 1

```
when board starts
do
  set digital pin IO27 - GPIO27 to high
  if reset reason is deep sleep
    do
      set Counter to pop from RTC memory
    else
      set Counter to 0
    change Counter by 1
    print Counter
    push Counter into RTC memory
    print "despertito!!"
    set Vbatt to get analog pin value IO34 - GPIO34 in mvolts
    print Vbatt
    wait 1 seconds
  try
    transmit unconfirmed frame to port 1 with payload
      pack hex string
        with round read temperature from sensor0 (BME280)
        with round read humidity from sensor0 (BME280)
        with round read pressure from sensor0 (BME280)
        with round Vbatt
    print "paquet enviat!!!"
  catch
    print "error!!!"
  finally
    set digital pin IO27 - GPIO27 to low
    print "a dormir!!"
    sleep CPU 60 seconds
```

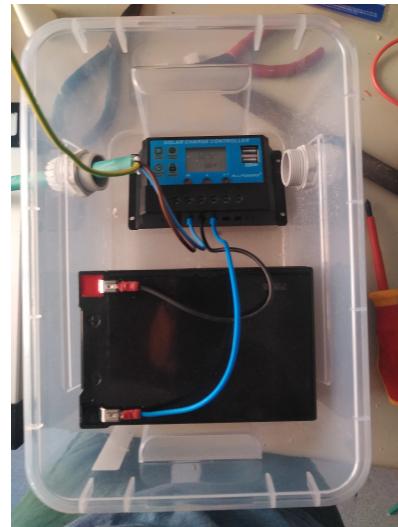
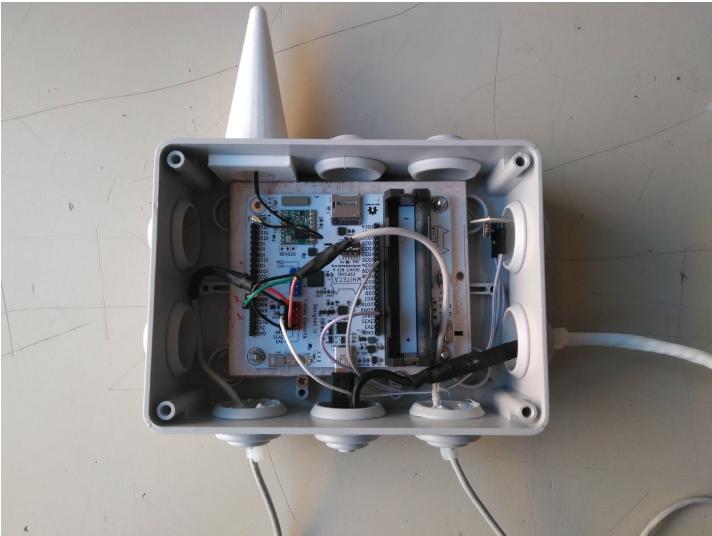


PROJECTE HIORT

HIORT + TTN

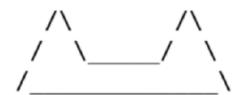


HORT + TTN

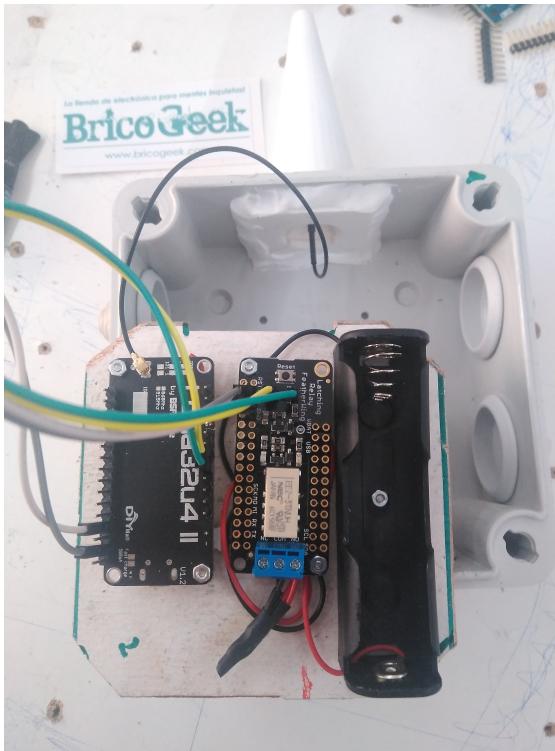




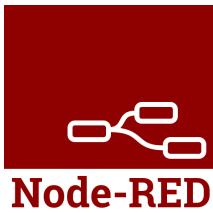
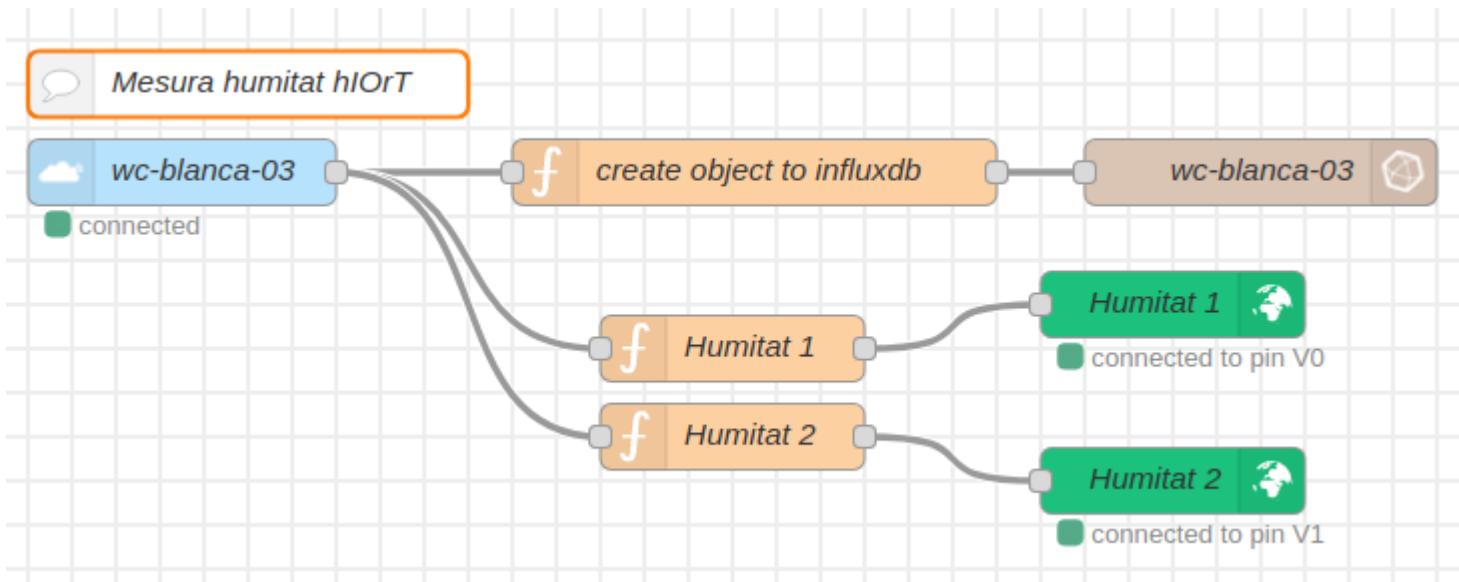
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HORT + TTN

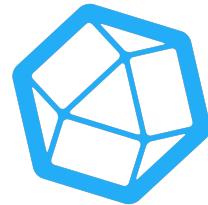
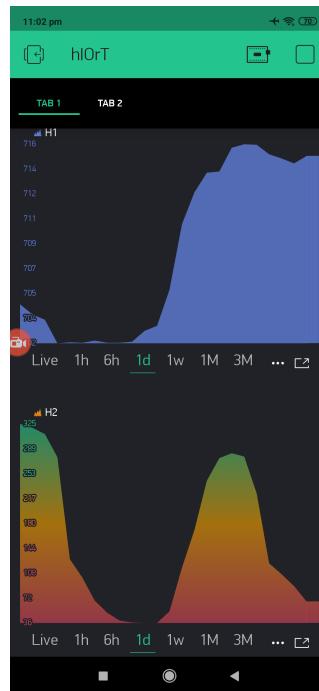
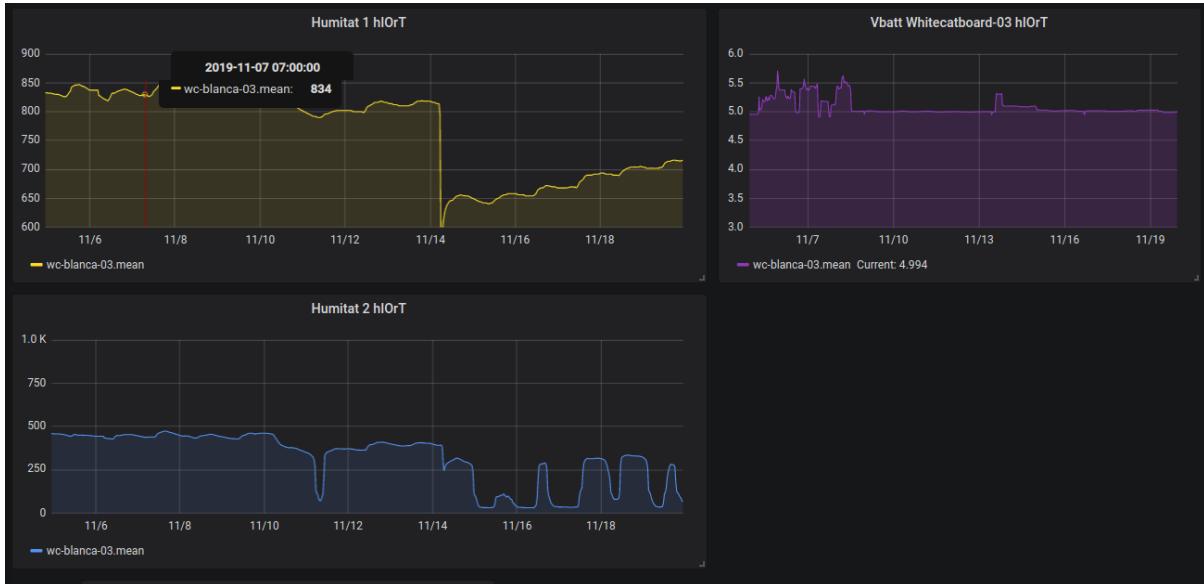


NODE-RED





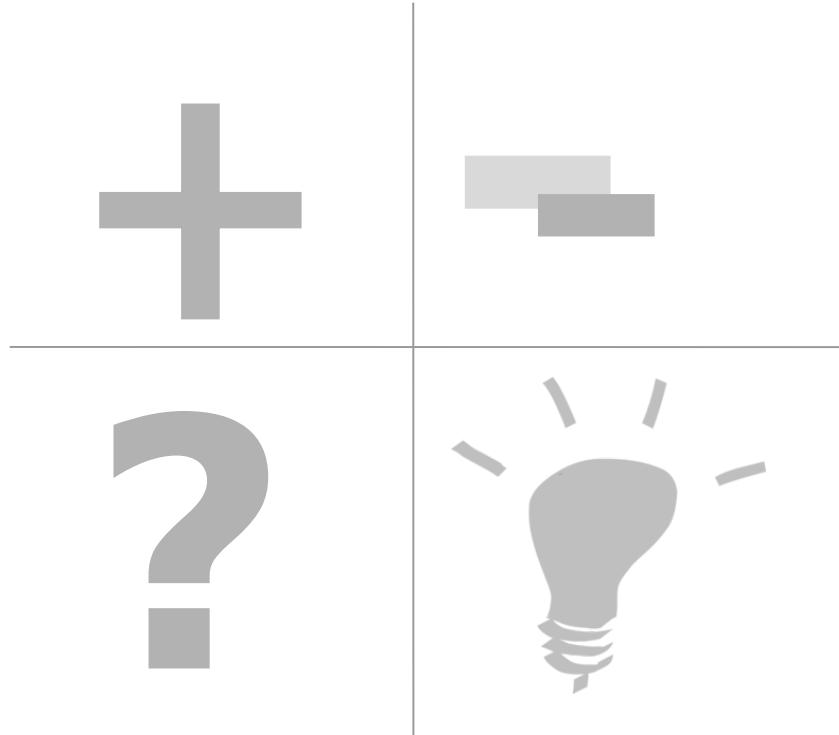
INFLUXDB + GRAFANA + BLYNK



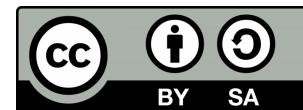
QUÈ T'HA SEMBLAT



GRÀCIES



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