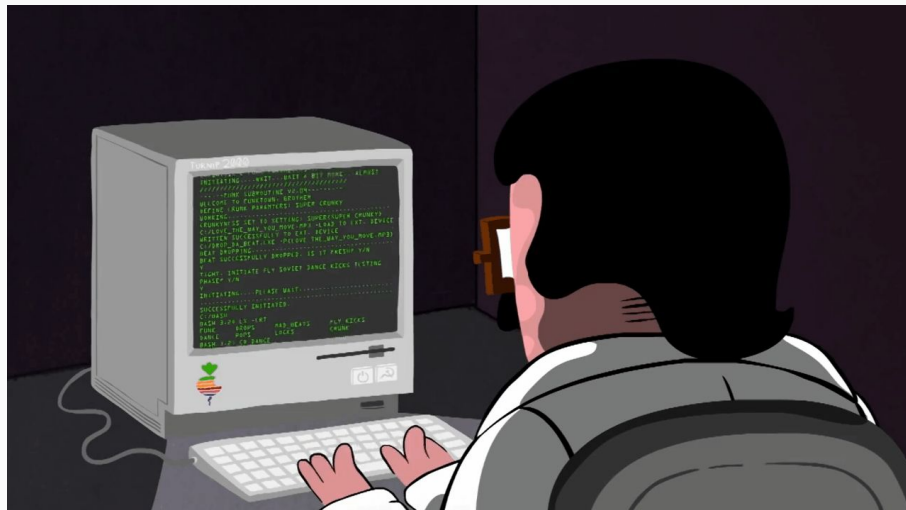


Professor: Luiz Felipe Oliveira

Criando um Dashboard
de IoT com o MQTT Dash



Parte 0: Explicando o MQTT

Parte 1: Publicação dos Dados

Parte 2: Visualização dos Dados

Modo Station + Cloud + App

CLOUD

WIFI MODE
STATION

CLOUD



192.168.0.1



ARDUINO
IDE

`millis();`



192.168.0.11

DISPOSITIVO

MQTT Client



publisher

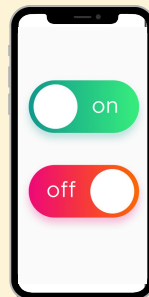


subscriber



MQTT Dash

Control the Things via MQTT protocol



CLIENTE



Instalando o MQTT Dash no Android



MQTT Dash (IoT, Smart Home)

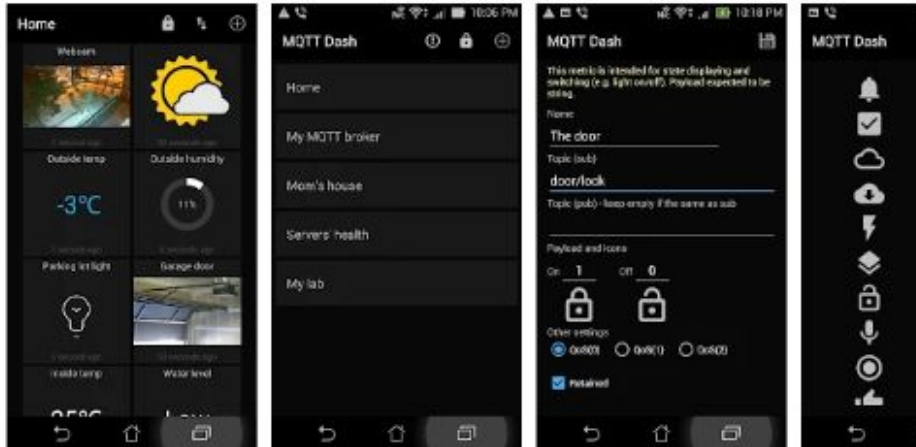
Routix software Comunicação

★★★★★ 4.871

Todos

Este app está disponível para seu dispositivo

Instalado



Instalando o Mqter no iOS



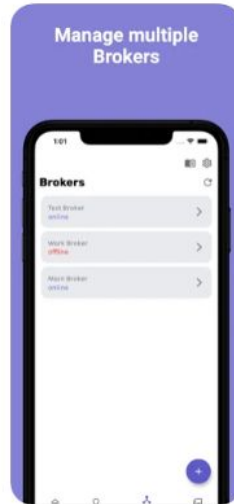
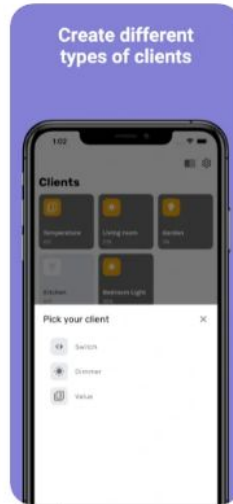
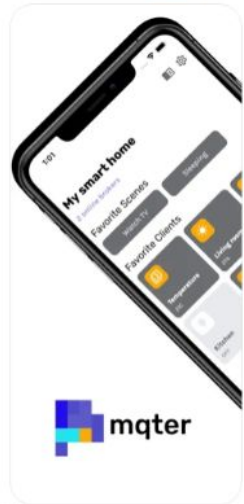
Mqter - Your MQTT dashboard 4+

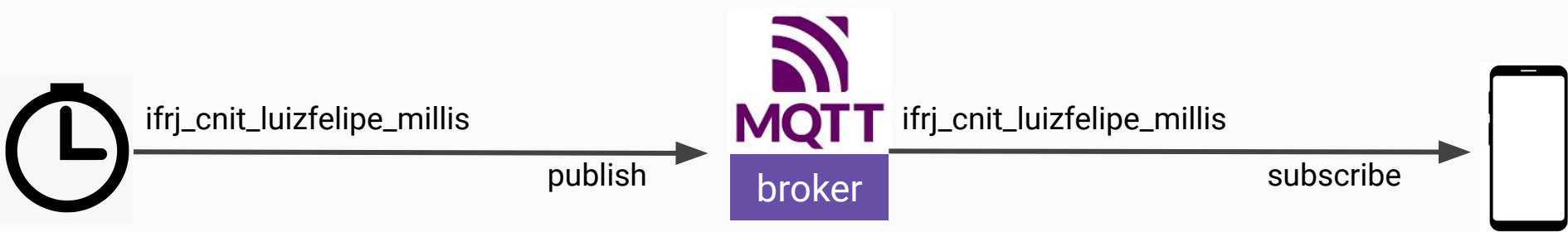
Manage all your MQTT devices

[Terrence Risse](#)

Free

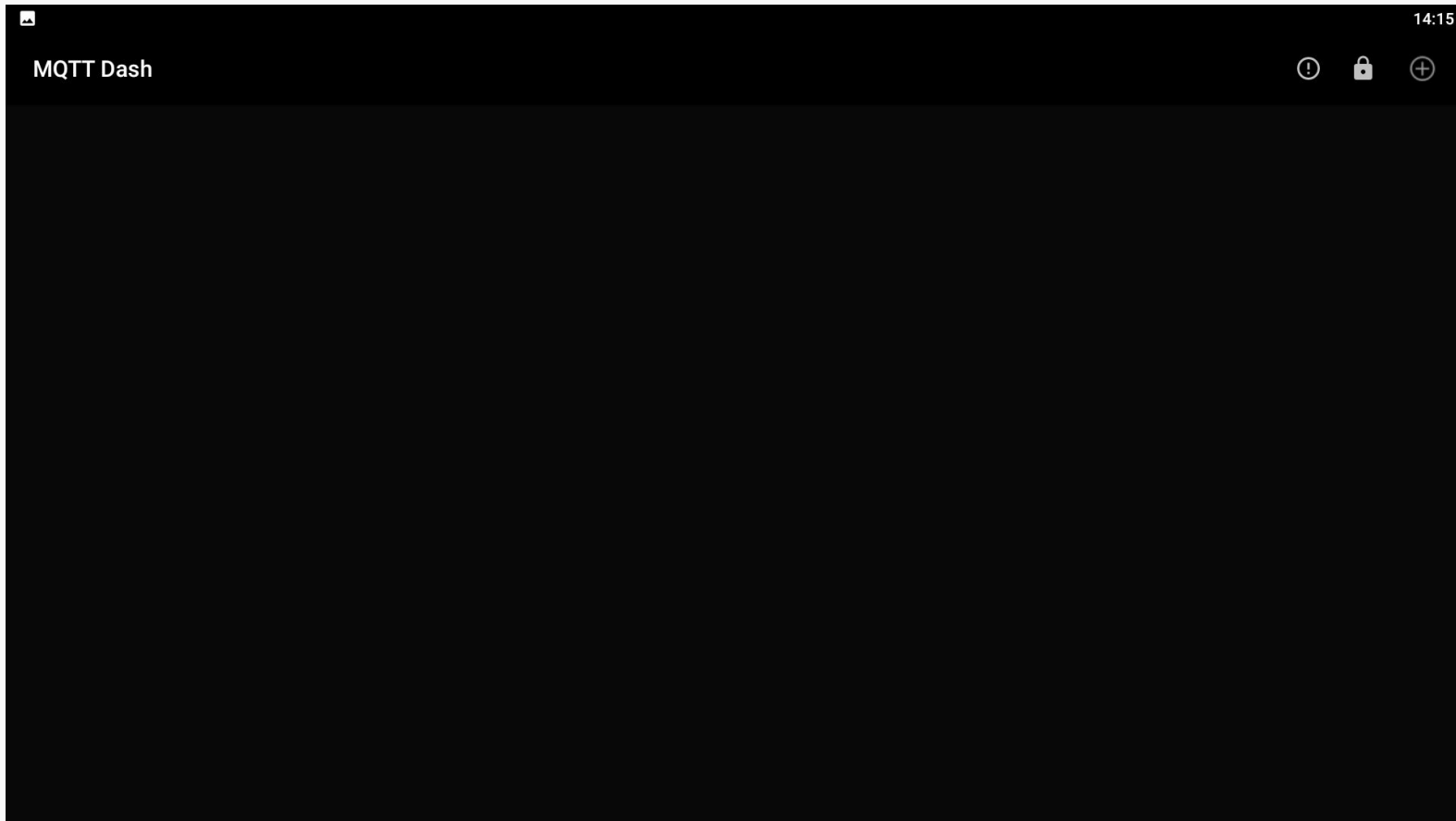
Screenshots [iPhone](#) [iPad](#)





MQTT_BROKER: broker.hivemq.com
MQTT_PORT: 1883

Criando o Dashboard IFRJ CNIT



✖ 14:14

MQTT Dash 📄

Name

IFRJ CNIT

Address

broker.hivemq.com

Port

1883

Enable connection encryption (SSL/TLS).
Note: if server certificate is self-signed, you need to install it to your device or enable option below, otherwise connection will fail. If server certificate issued by a known Certificate Authority (CA), it will work out of box, without installing to you device. Also don't forget, that MQTT servers have different ports for plain and SSL/TLS connections.

This broker uses self-signed SSL/TLS certificate. I trust this certificate at my own risk.

User name

User password

Client ID (must be unique)

mqttdash-d5aa994b

Tile size

Small

Medium

Large

Matrix column count for optimal orientation (0 - auto)

☰ 14:14

MQTT Dash 📄

Name

IFRJ CNIT

Address

broker.hivemq.com

Port

1883

Enable connection encryption (SSL/TLS).
Note: if server certificate is self-signed, you need to install it to your device or enable option below, otherwise connection will fail. If server certificate issued by a known Certificate Authority (CA), it will work out of box, without installing to you device. Also don't forget, that MQTT servers have different ports for plain and SSL/TLS connections.

This broker uses self-signed SSL/TLS certificate. I trust this certificate at my own risk.

User name

User password

Client ID (must be unique)

mqttdash-d5aa994b

Tile size

Small

Medium

Large

Matrix columns count for vertical orientation (0 - auto)

Criando o Dashboard IFRJ CNIT



Criando o Dashboard IFRJ CNIT

IFRJ CNIT



IFRJ CNIT



Choose type

Text

Switch/button

Range/progress

Multi choice

Image

Color

☰ 14:12

MQTT Dash 📄

Name

Millis

Topic (sub)

ifrj_cnit_luizfelipe_millis

Extract from JSON path (if payload is in JSON format), e.g.: \$.level.value. JSON path documentation at the URL below:

<https://github.com/jayway/JsonPath/blob/master/README.md>

Enable publishing

Prefix Postfix


Main text size

Small

Medium

Large

Main text color



Other settings

QoS(0)

QoS(1)

QoS(2)

Disclaimer: draw attention, if the expression evaluates to 'true'!

Criando o Switch do LED Red

MQTT Dash 14:05

Name
Red

Topic (sub)
ifrj_cnit_luizfelipe_red





Extract from JSON path (if payload is in JSON format), e.g.: \$.level.value. JSON path documentation at the URL below:
<https://github.com/jayway/JsonPath/blob/master/README.md>

Enable publishing

Topic (pub) - keep empty if the same as sub

Update metric on publish immediately (do not wait for incoming message to update visual state)

Payload and icons. If you need not a switch, but a simple button, just set the same payload values and the same icons for On and Off. This way the switch will never change icon and always send the same payload value.

On	<u>1</u>	Off	<u>0</u>
			
			

Other settings

QoS(0)

QoS(1)

Criando o Switch do LED Yellow

MQTT Dash 14:05

Name
Yellow

Topic (sub)
ifrj_cnit_luizfelipe_yellow

Extract from JSON path (if payload is in JSON format), e.g.: \$.level.value. JSON path documentation at the URL below:
<https://github.com/jayway/JsonPath/blob/master/README.md>





Enable publishing

Topic (pub) - keep empty if the same as sub

Update metric on publish immediately (do not wait for incoming message to update visual state)

Payload and icons. If you need not a switch, but a simple button, just set the same payload values and the same icons for On and Off. This way the switch will never change icon and always send the same payload value.

On 1 Off 0

Other settings
 QoS(0)

Criando o Switch do LED Green

MQTT Dash 14:06

Name
Green

Topic (sub)
ifrj_cnit_luizfelipe_green

Extract from JSON path (if payload is in JSON format, e.g.: \$.level.value. JSON path documentation at the URL below:
<https://github.com/jayway/JsonPath/blob/master/README.md>



Enable publishing

Topic (pub) - keep empty if the same as sub

Update metric on publish immediately (do not wait for incoming message to update visual state)

Payload and icons. If you need not a switch, but a simple button, just set the same payload values and the same icons for On and Off. This way the switch will never change icon and always send the same payload value.

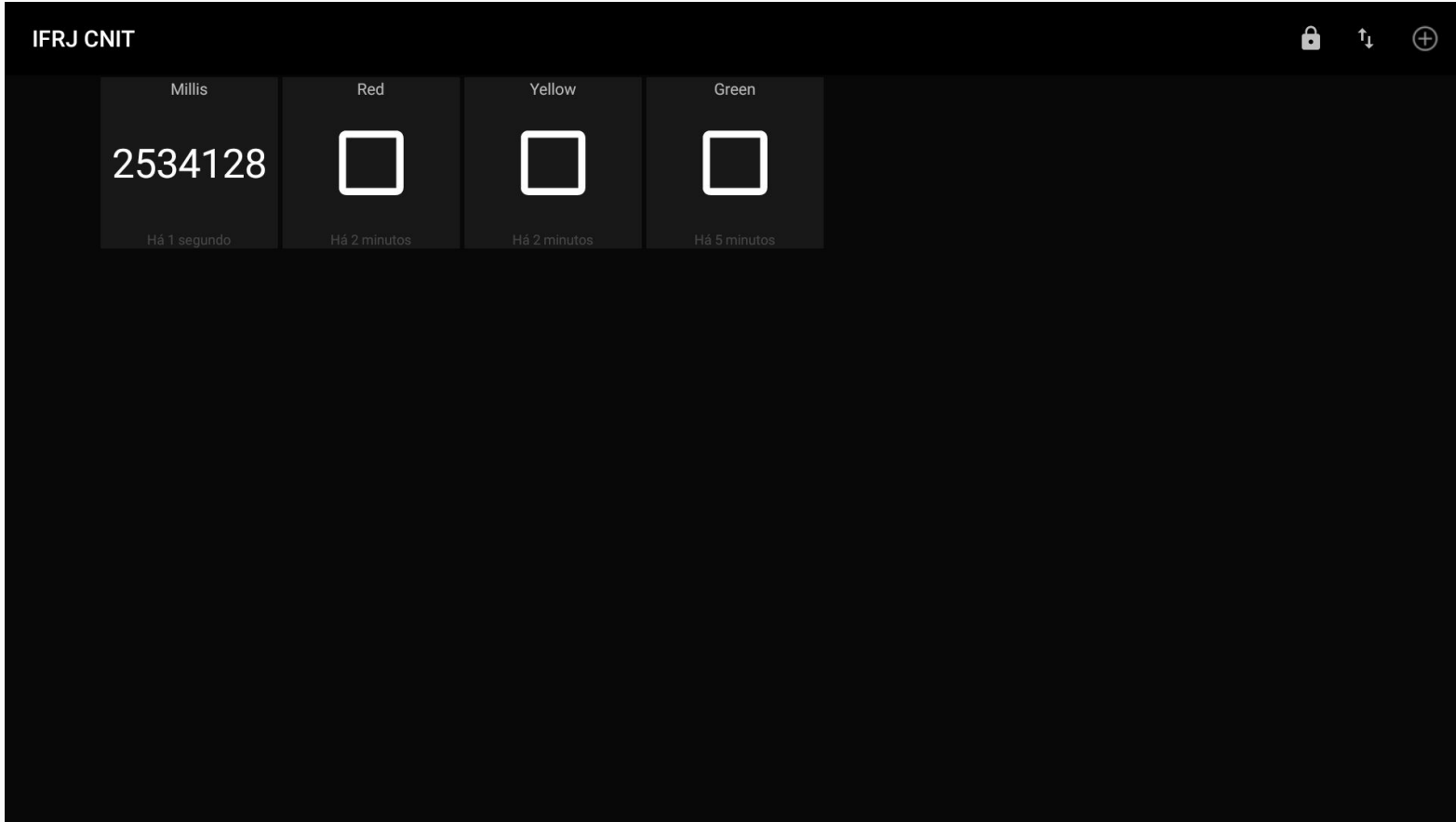
On 1 Off 0

<input checked="" type="checkbox"/>	<input type="checkbox"/>
	

Other settings

QoS(0)




Criando o Dashboard IFRJ CNIT



Editando um componente já inserido

IFRJ CNIT



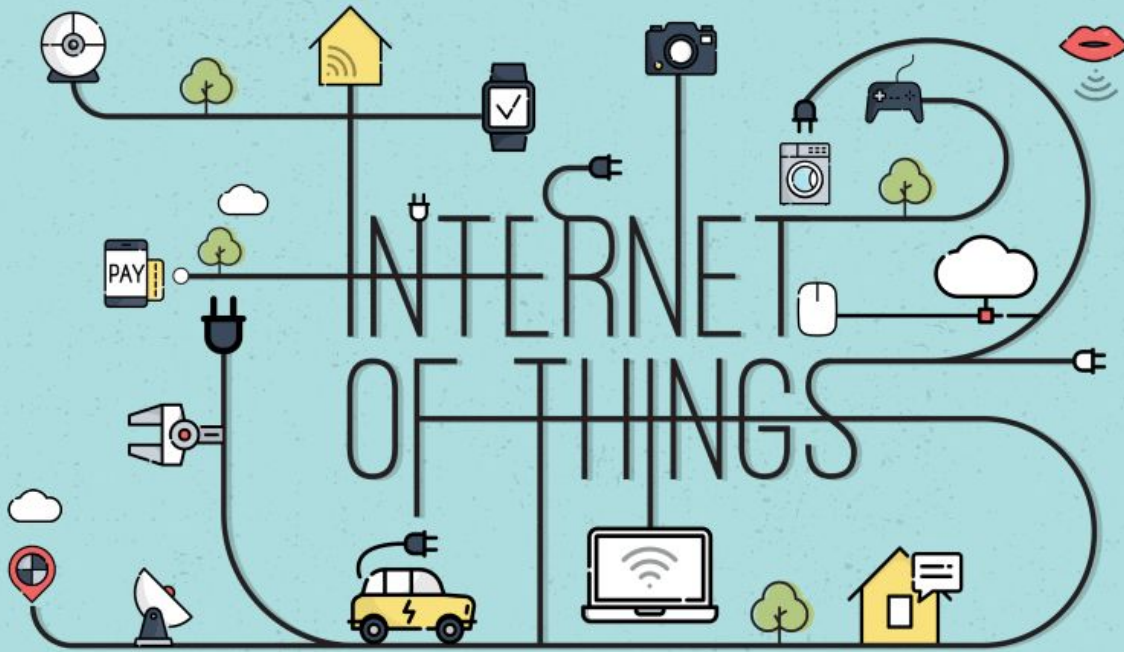
Millis	Red	Yellow	Green
2542134			
Há 0 segundo	Há 3 segundos		Há 5 minutos

Edit

Clone

Delete...

Delete retained messages...



Professor: Luiz Felipe Oliveira

Dúvidas