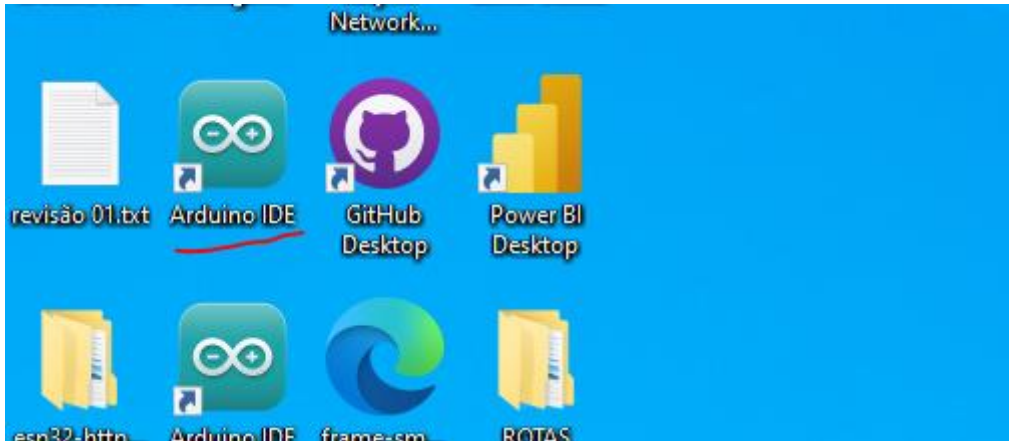
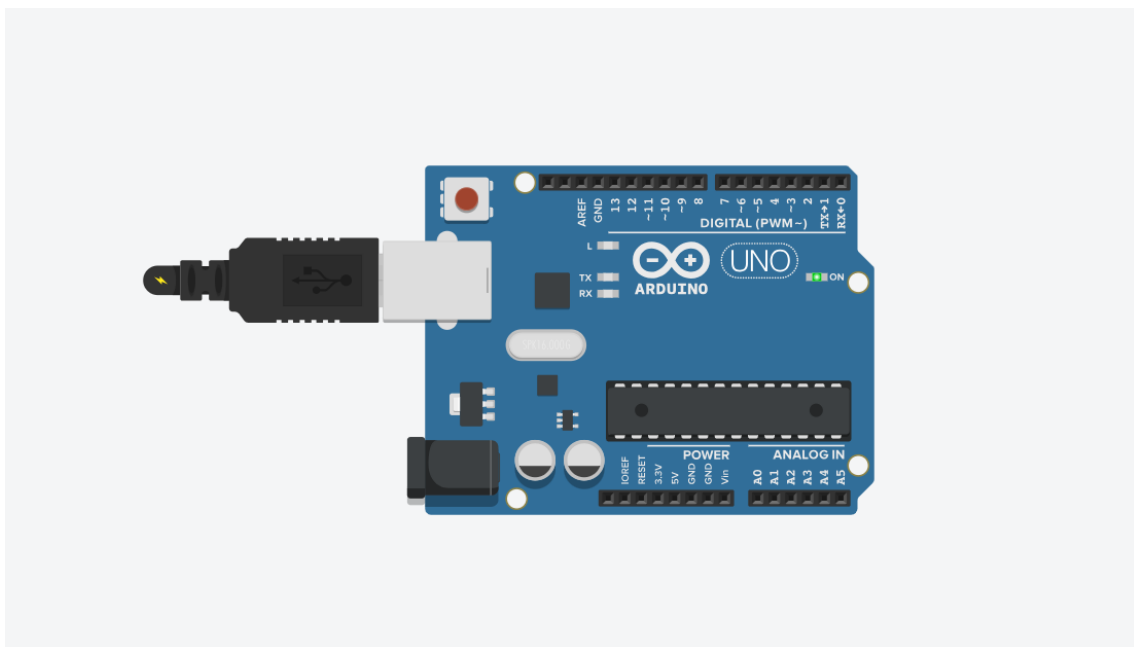


CONECTAR ARDUÍNO AO NODE-RED

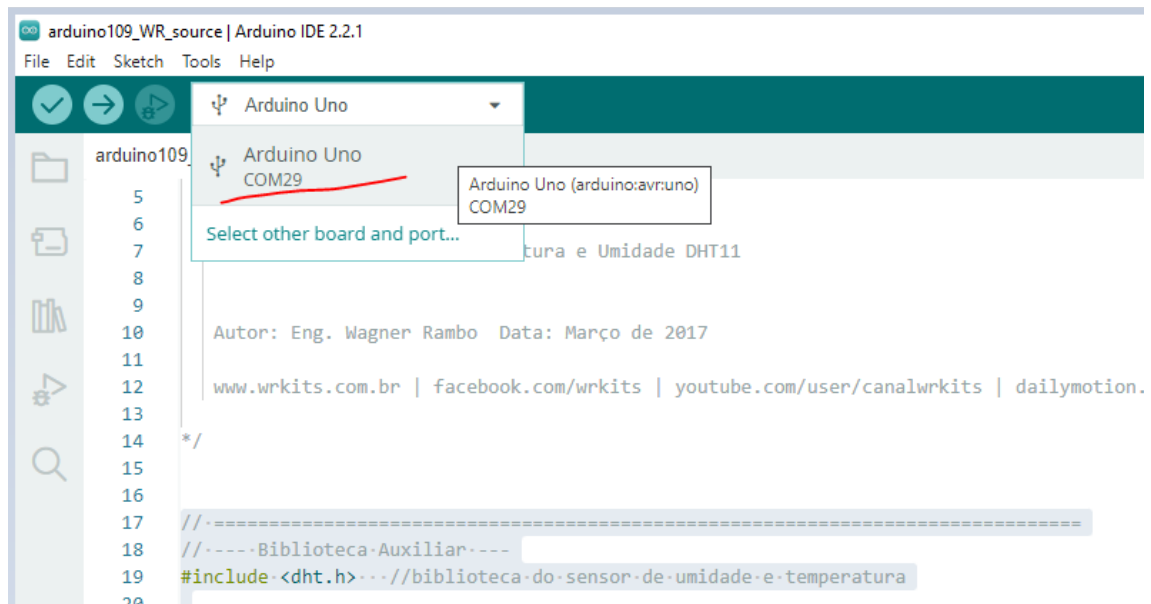
1-ABRA ARDUÍNO IDE



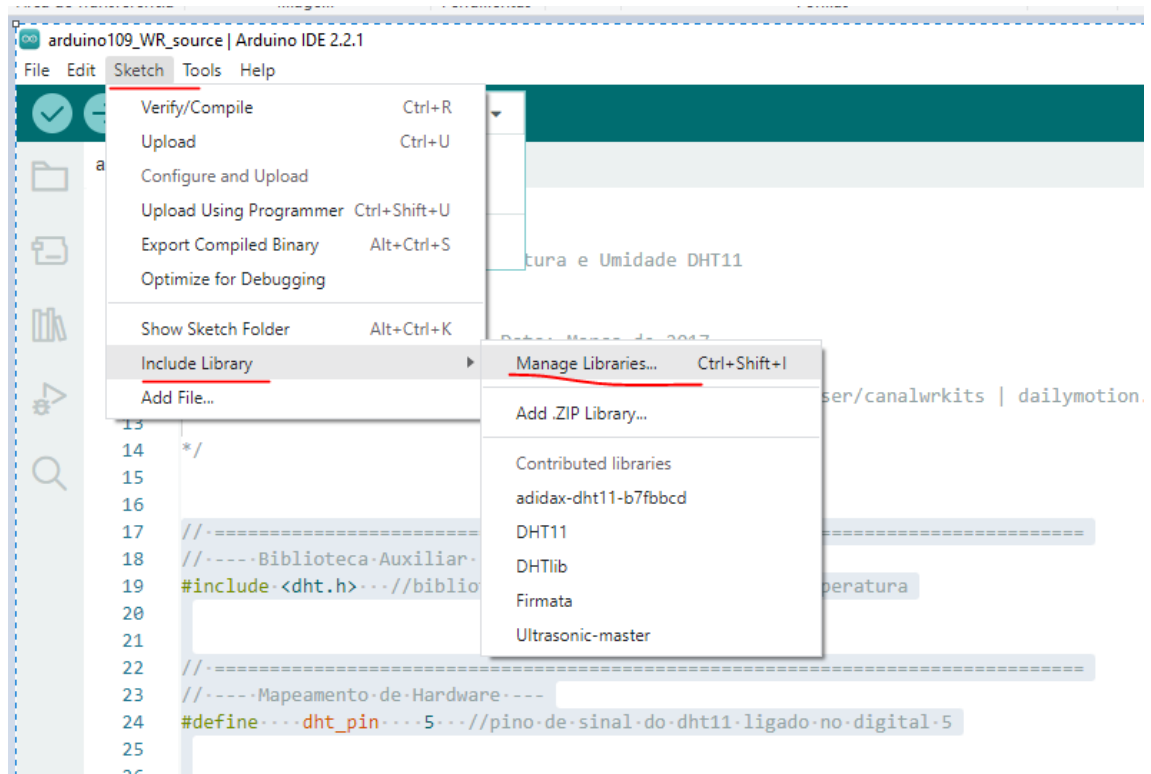
2-CONECTE SEU ARDUÍNO AO PC VIA USB



3-SELECIONE A PORTA CORRETA DO MESMO




4-INSTALE A BIBLIOTECA FIRMATA



LIBRARY MANAGER

Firmata

Type: All 

Topic: All 

Firmata by Firmata Developers

Enables the communication with computer apps using a standard serial protocol. For all Arduino/Genuino boards. The Firmata library... [More info](#)

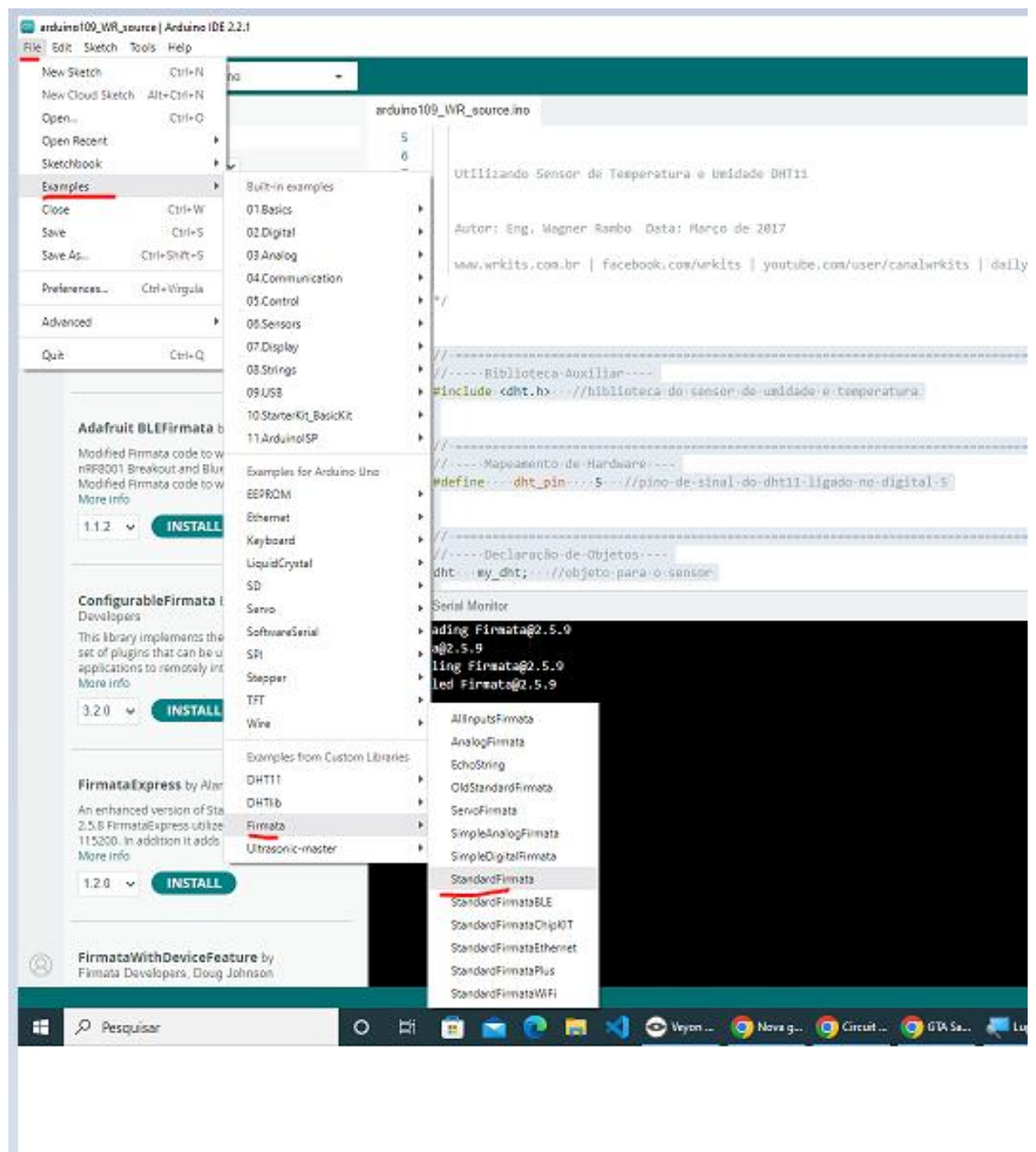
2.5.9 ▼

INSTALL

Adafruit BLEFirmata by Adafruit

Modified Firmata code to work with Adafruit's nRF8001 Breakout and BlueFruit modules
Modified Firmata code to work with Adafruit's...
[More info](#)

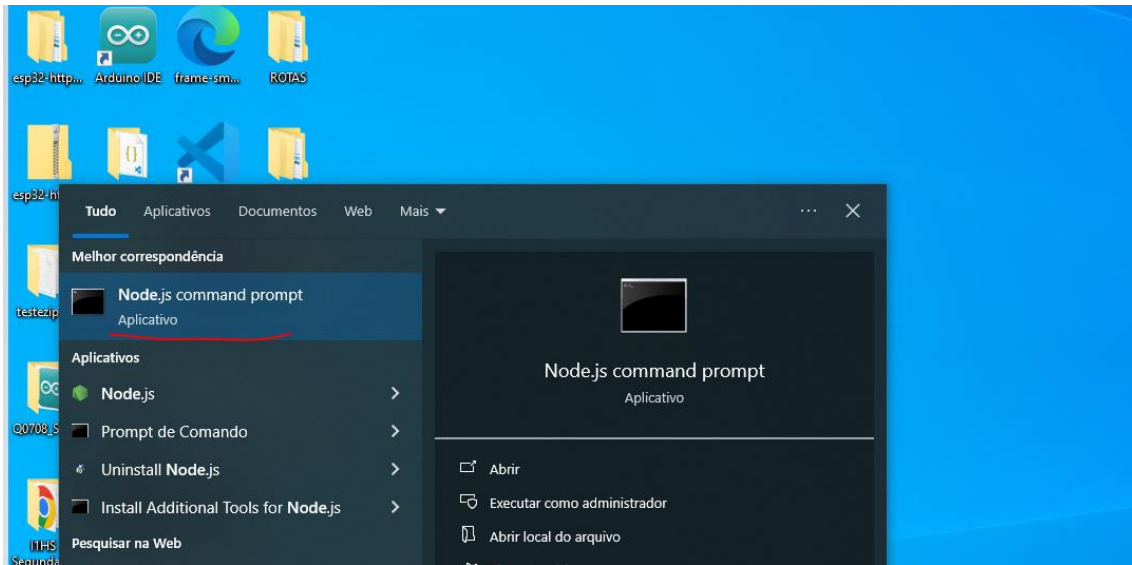
5-CARREGUE O CÓDIGO DE EXEMPLO STANDARD FIRMATA



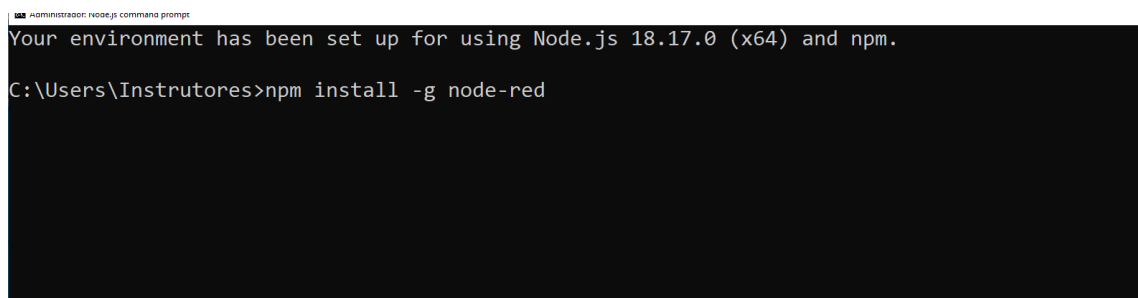
StandardFirmata.ino

```
1  /*
2  Firmata is a generic protocol for communicating with microcontrollers
3  from software on a host computer. It is intended to work with
4  any host computer software package.
5
6  To download a host software package, please click on the following link
7  to open the list of Firmata client libraries in your default browser.
8
9  https://github.com/firmata/arduino#firmata-client-libraries
10
11  Copyright (C) 2006-2008 Hans-Christoph Steiner. All rights reserved.
12  Copyright (C) 2010-2011 Paul Stoffregen. All rights reserved.
13  Copyright (C) 2009 Shigeru Kobayashi. All rights reserved.
14  Copyright (C) 2009-2016 Jeff Hoefs. All rights reserved.
15
16  This library is free software; you can redistribute it and/or
17  modify it under the terms of the GNU Lesser General Public
18  License as published by the Free Software Foundation; either
19  version 2.1 of the License, or (at your option) any later version.
20
21  See file LICENSE.txt for further informations on licensing terms.
22
23  Last updated August 17th, 2017
24  */
25
26  #include <Servo.h>
27  #include <Wire.h>
28  #include <Firmata.h>
29
30  #define I2C_WRITE          B00000000
31  #define I2C_READ           B00001000
32  #define I2C_READ_CONTINUOUSLY B00010000
33  #define I2C_STOP_READING   B00011000
34  #define I2C_READ_WRITE_MODE_MASK B00011000
35  #define I2C_10BIT_ADDRESS_MODE_MASK B00100000
36  #define I2C_END_TX_MASK    B01000000
37  #define I2C_STOP_TX        1
38  #define I2C_RESTART_TX     0
39  #define I2C_MAX_QUERIES    8
40  #define I2C_REGISTER_NOT_SPECIFIED -1
41
42  // the minimum interval for sampling analog input
43  #define MINIMUM_SAMPLING_INTERVAL 1
44
45
46  /*=====
```

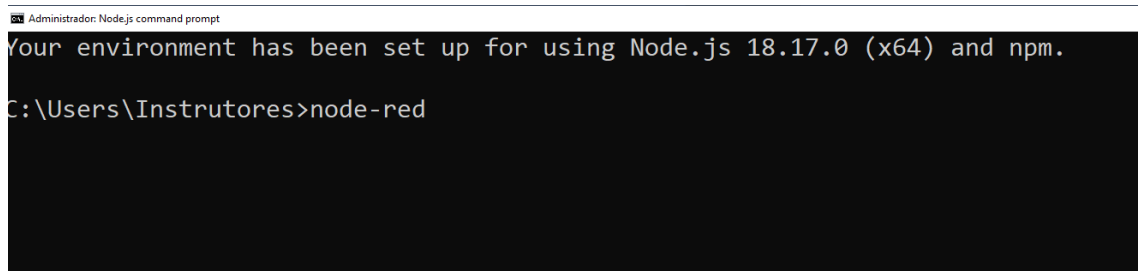
6-ABRA O TERMINAL DE COMANDO DO NODEJS



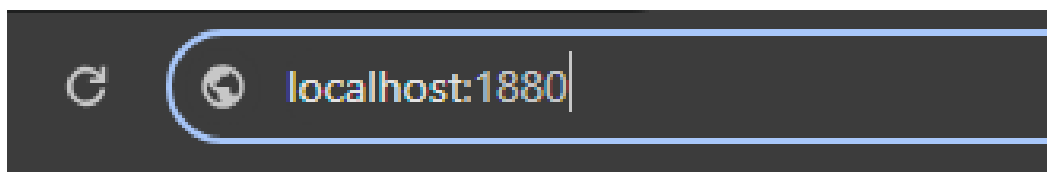
7-FAÇA A INSTALAÇÃO DO AMBIENTE NODE-RED



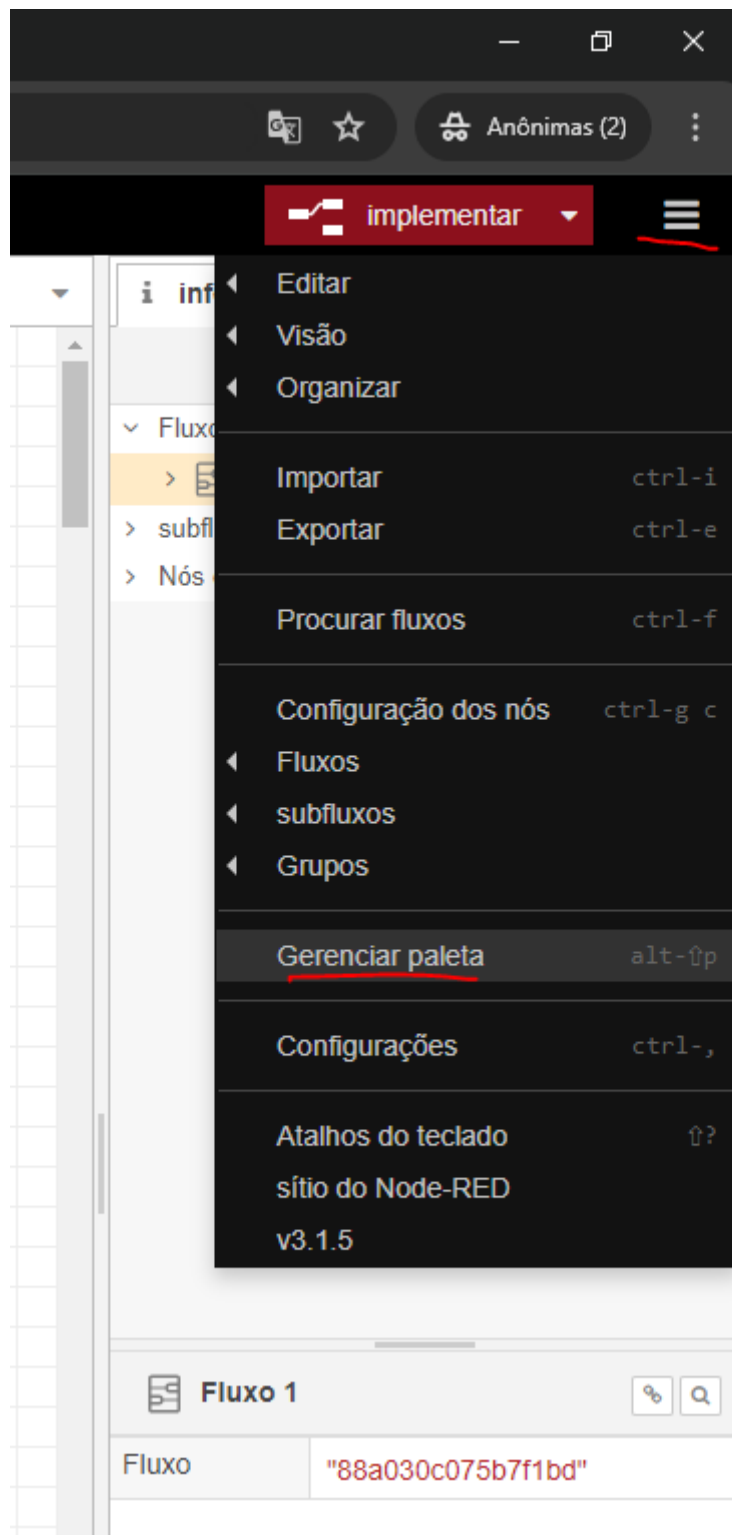
8-INICIE O NODE-RED



9-ABRA NO NAVEGADOR O AMBIENTE NODE-RED



10-CLIQUE NO MENU SUSPENSO A DIREITA PARA ADICIONAR UMA NOVA PALETA



11-INSTALE A PALETA ARDUINO FIRMATA

The screenshot displays the 'Configurações do usuário' (User Settings) window in Node-RED. The 'Visão' (View) tab is active, showing a list of nodes from the 'Node-RED Community catalogue'. The search bar contains 'arduino', resulting in 13/4889 items. The 'Paleta' (Palette) on the left is set to 'Environment'. The list of nodes includes:

- @arduino/node-red-contrib-arduino-iot-cloud**: Node-RED nodes to talk to Arduino IoT Cloud. Version 1.0.10, updated 8 meses atrás. Button: instalar.
- node-red-node-arduino**: A Node-RED node to talk to an Arduino running firmata. Version 1.0.0, updated 6 meses atrás. Button: instalado.
- node-red-contrib-webduino**: Node-RED nodes for Webduino. Version 0.0.15, updated 6 anos, 5 meses atrás. Button: instalar.
- node-red-contrib-idm**: Nodes for IDM and DUO. Version 0.4.10, updated 7 anos, 8 meses atrás. Button: instalar.
- node-red-contrib-thinger**: Node-Red library for Thinger.io Platform. Version 1.7.6, updated 5 dias atrás. Button: instalar.
- node-red-contrib-ble-sense**: Node-RED module for Bluetooth Low Energy (BLE) devices. Version 0.0.13, updated 1 ano, 2 meses atrás. Button: instalar.
- node-red-contrib-simplecomm-node**: A simple communication node for node-RED.

Red annotations highlight the 'Instalar' button in the top right, the 'node-red-node-arduino' entry in the list, and the 'firmata' text in its description.

12-INSTALE A PALETA DASHBOARD

Configurações do usuário

Fechar

Visão

Nós

Instalar

Node-RED Community catalogue

ordenar:

Paleta

Teclado

Environment

dashboard

92 / 4889

dashboard-evi

A set of dashboard nodes for Node-RED

1.0.2

2 anos, 11 meses atrás

instalado

cn-dashboard-nodes

Install

0.0.2

6 anos, 2 meses atrás

instalar

node-red-dashboard

A set of dashboard nodes for Node-RED

3.6.5

2 meses atrás

instalar

feezal

Web Components based Dashboard UI with WYSIWYG Editor

0.8.1

3 anos, 8 meses atrás

instalar

node-red-contrib-dashboard-average-bars

Calculate and display the average values of msg.payload in a bar chart.

0.0.6

6 anos, 1 mês atrás

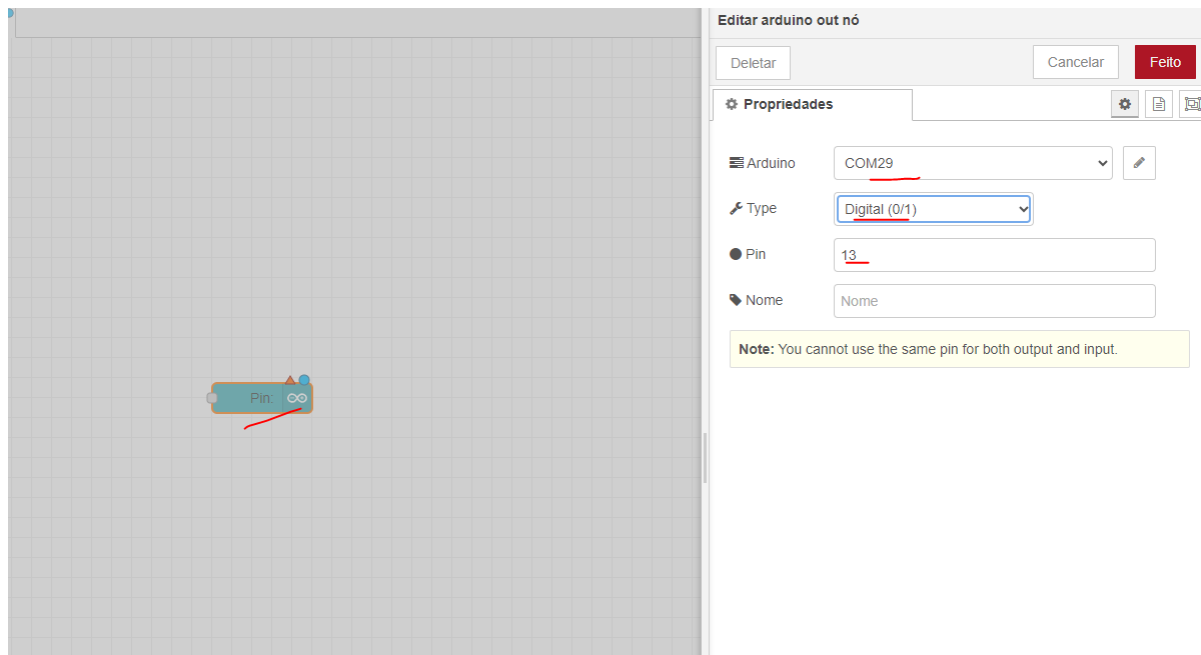
instalar

node-red-contrib-dashboard-bar-chart-data

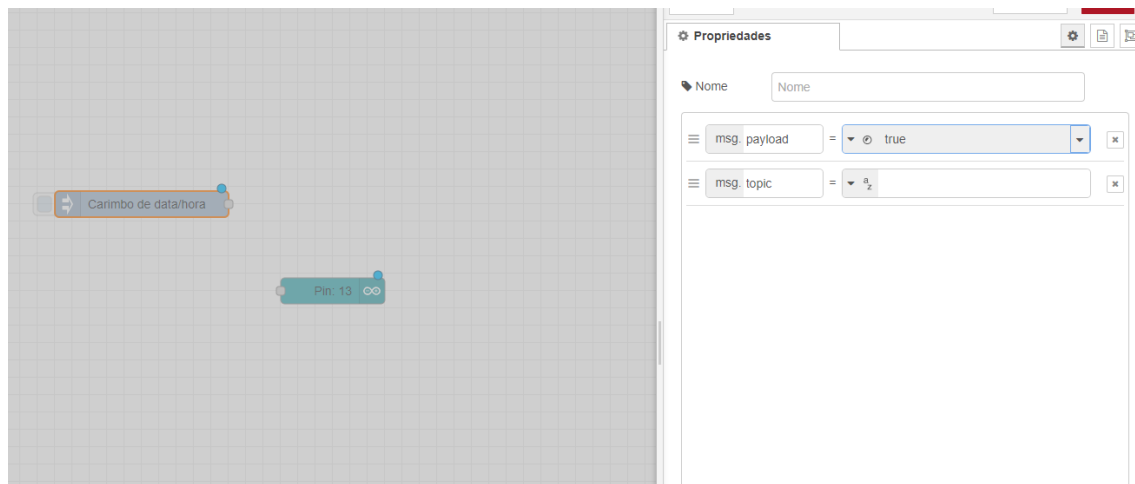
13-UTILIZE UM NÓ DO TIPO ARDUINO OUT

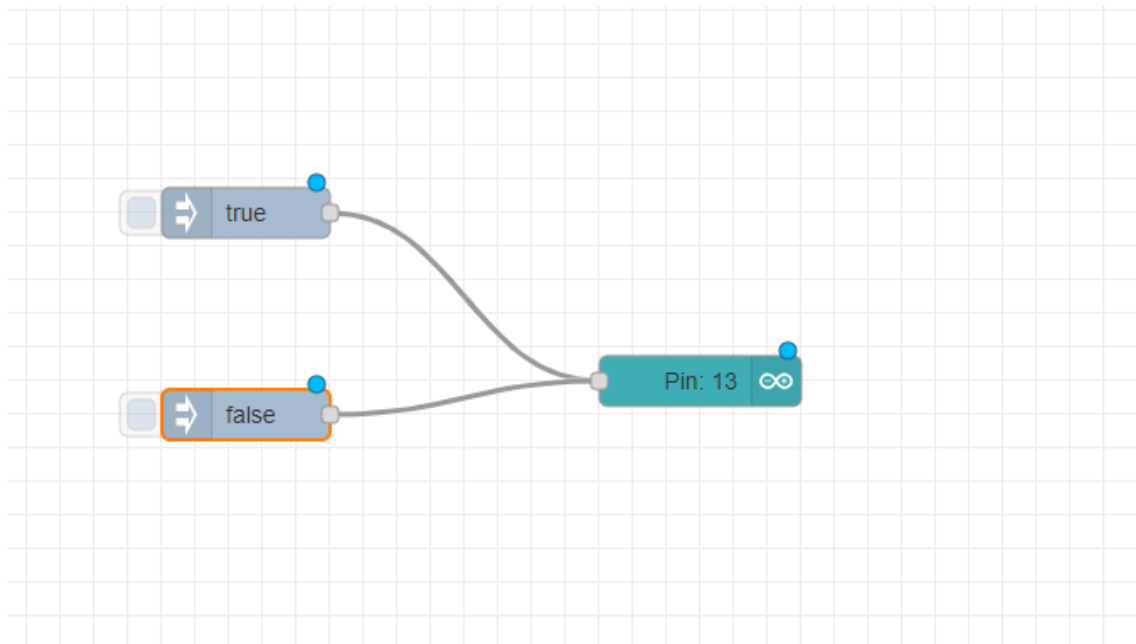
arduino out

14-CONFIGURE OS DADOS DO NÓ CLICANDO SOBRE ELE

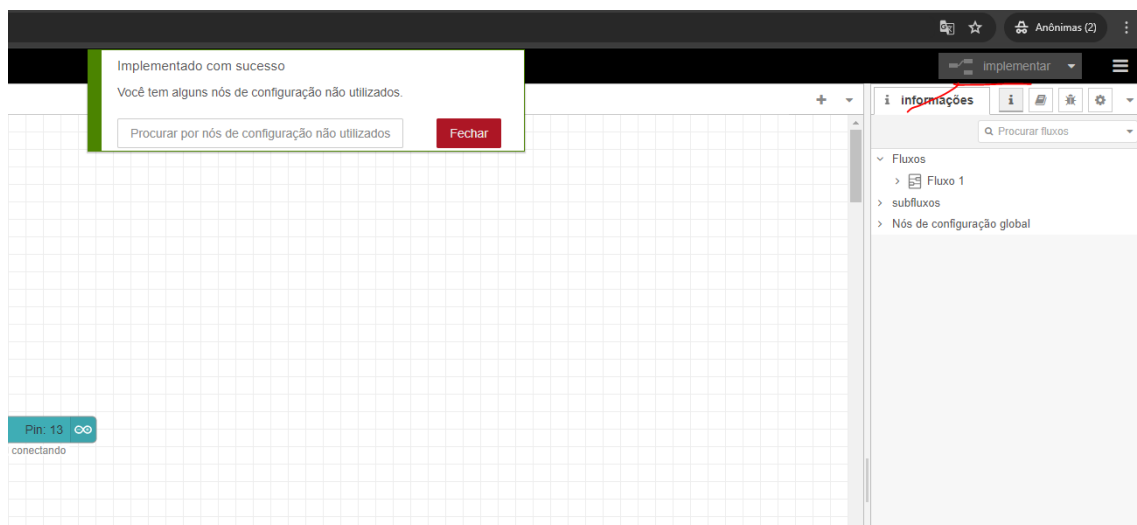


15-INSIRA 2 NÓS DO TIPO INJECT E CONFIGURE 1 PARA O TIPO BOLLEAN TRUE E 1 PARA O TIPO BOLLEAN FALSE





16-CLIQUE EM IMPLENTAR

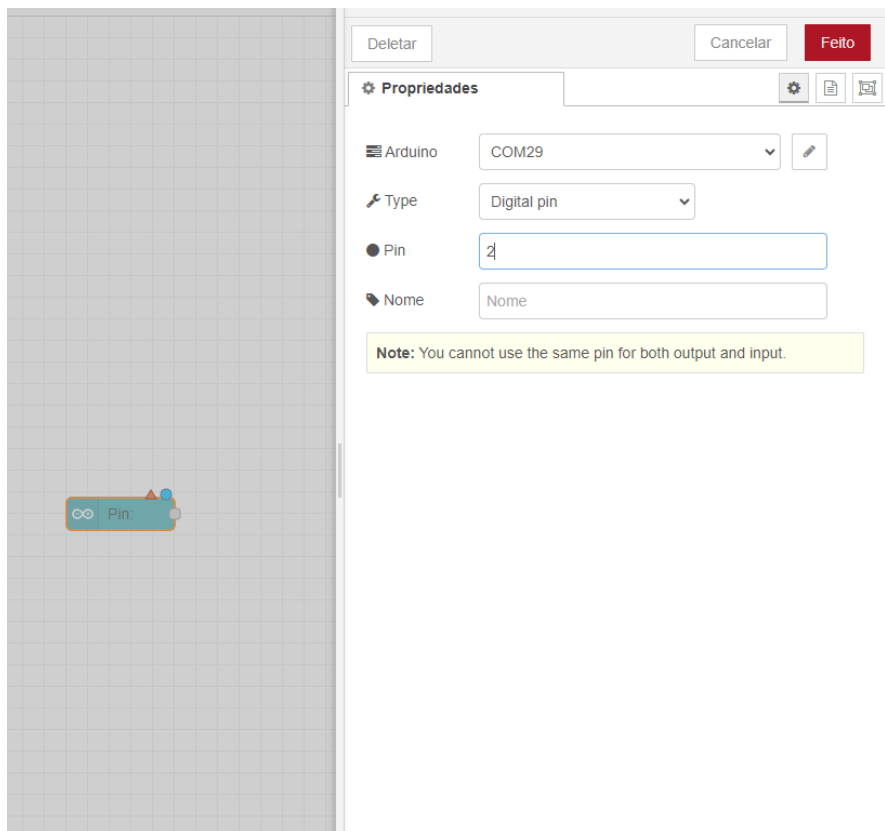


17-PARABÉNS AGORA É POSSÍVEL LIGAR E DESLIGAR O LED DO TEMRINAL 13 VIA NODE RED

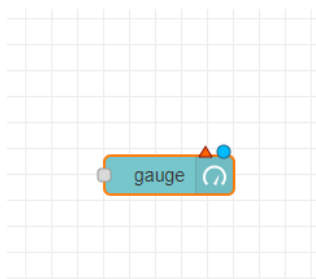
18-ADICIONE UM NÓ DO TIPO ARDUINO IN



19-CONFIGURE ESTE COMO DIGITAL



20-ARRASTE UM NÓ DO TIPO GAUGE



21-EDITE AS PROPRIEDADES DO GAUGE DE FORMA ADEQUADA

Editar gauge nó

Deletar

Cancelar

Feito

Propriedades

Group

[Home] SEMÁFORO

Size

auto

Type

Gauge

Label

gauge

Value format

{{value}}

Units

units

Range

min

0

max

10

Colour gradient

Sectors

0

...

optional

...

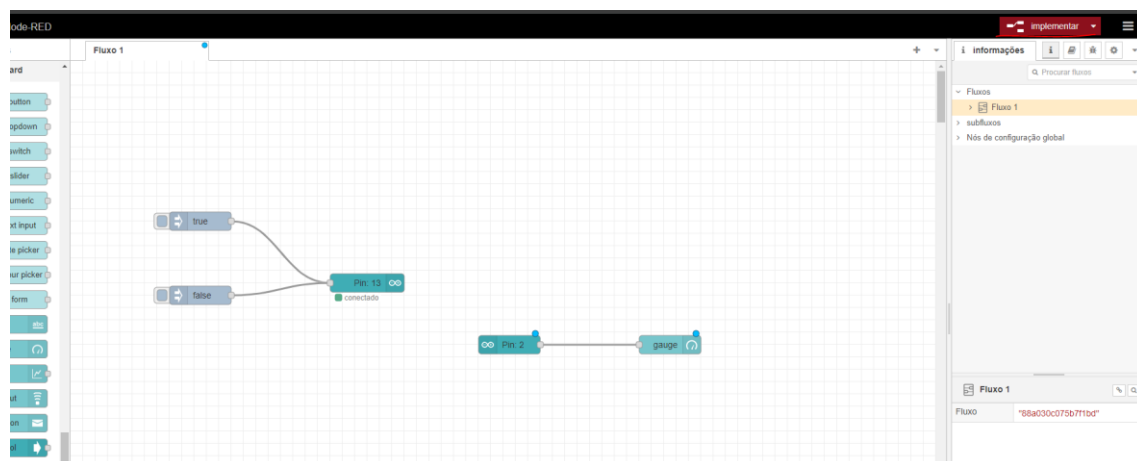
optional

...

10

Name

22-CLIQUE EM IMPLEMENTAR



23-ABRA O NAVEGADOR NA URL : localhost:1880/ui