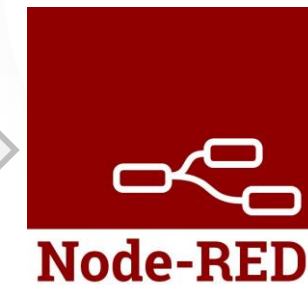
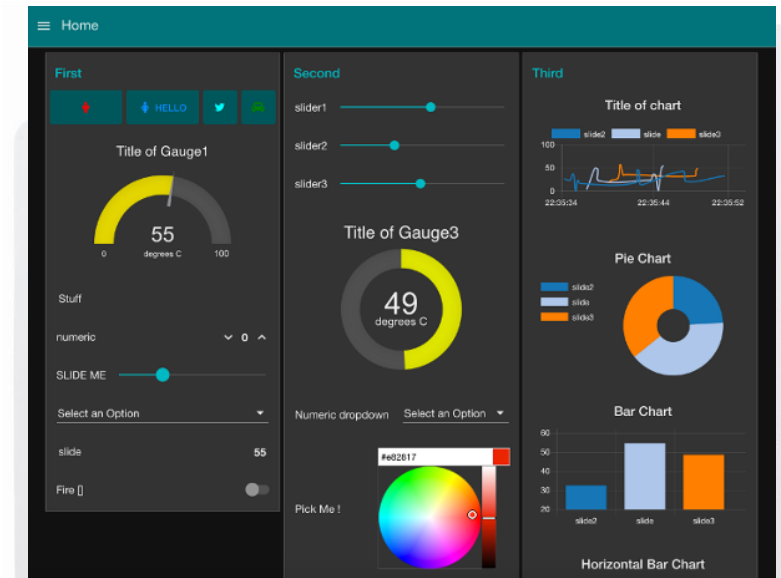
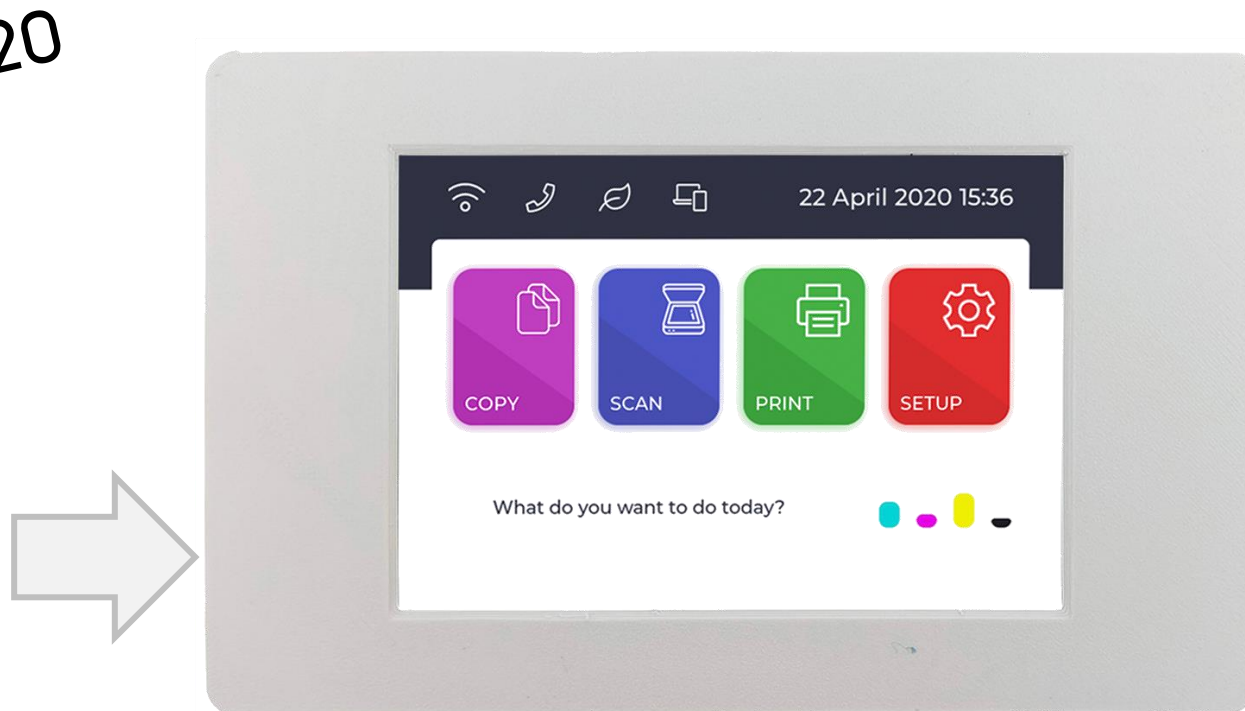


# การเชื่อมต่อกับ Node-RED ผ่าน MQTT

แสดงผลค่าเซ็นเซอร์บน Dashboard

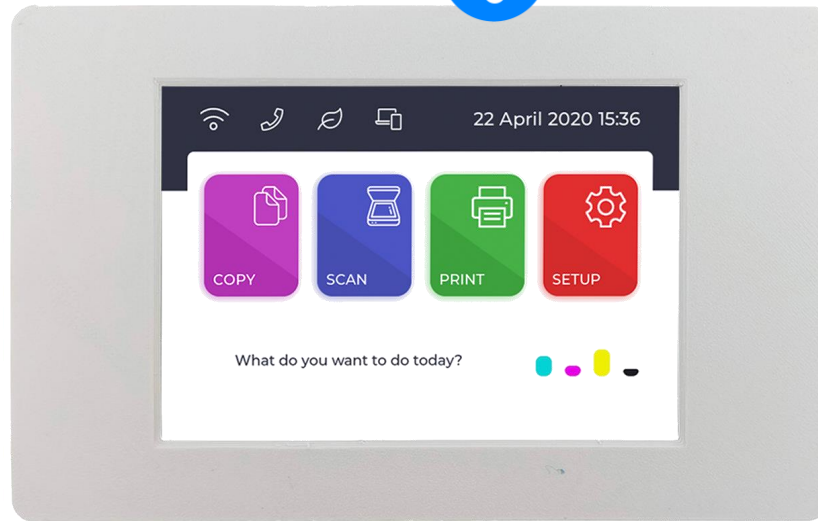
DS18B20




# หลักการทำงาน

DS18B20

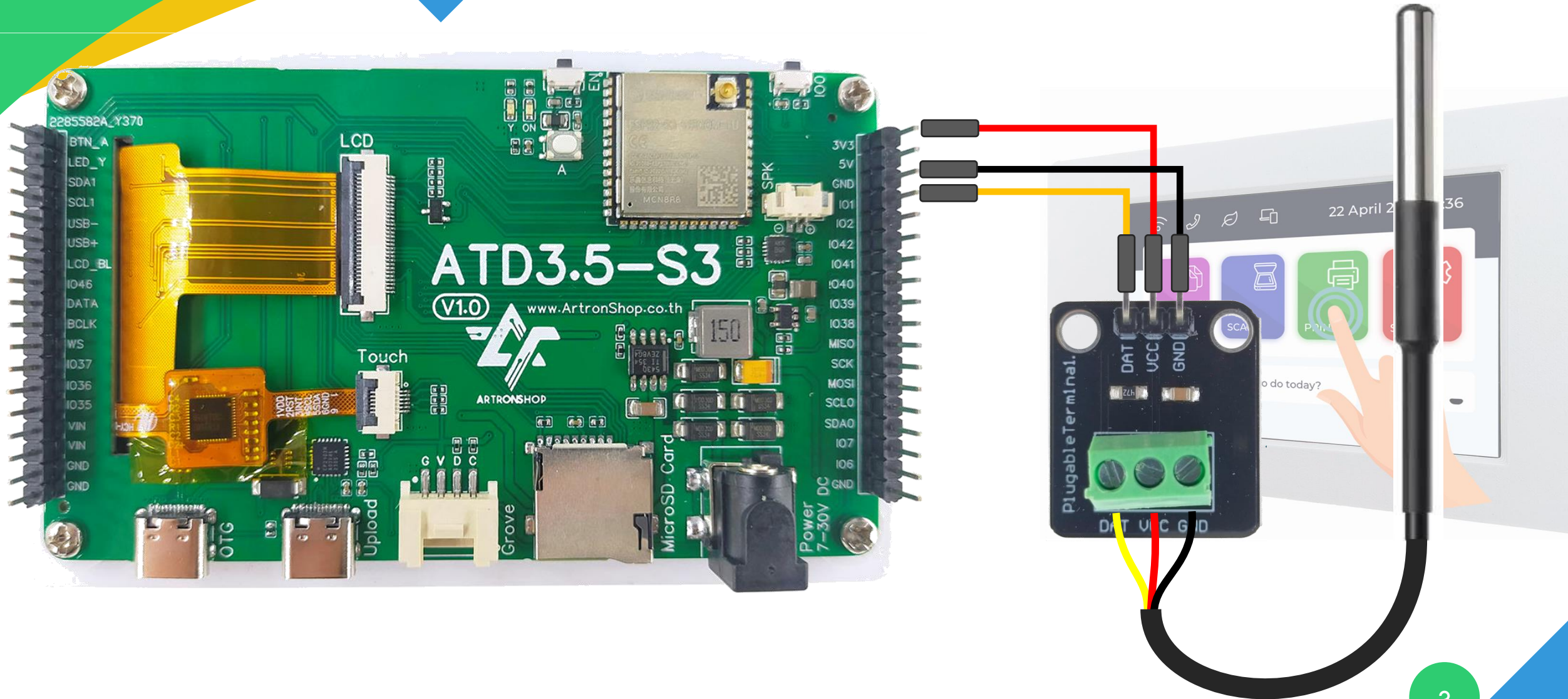
  
**EMQX**



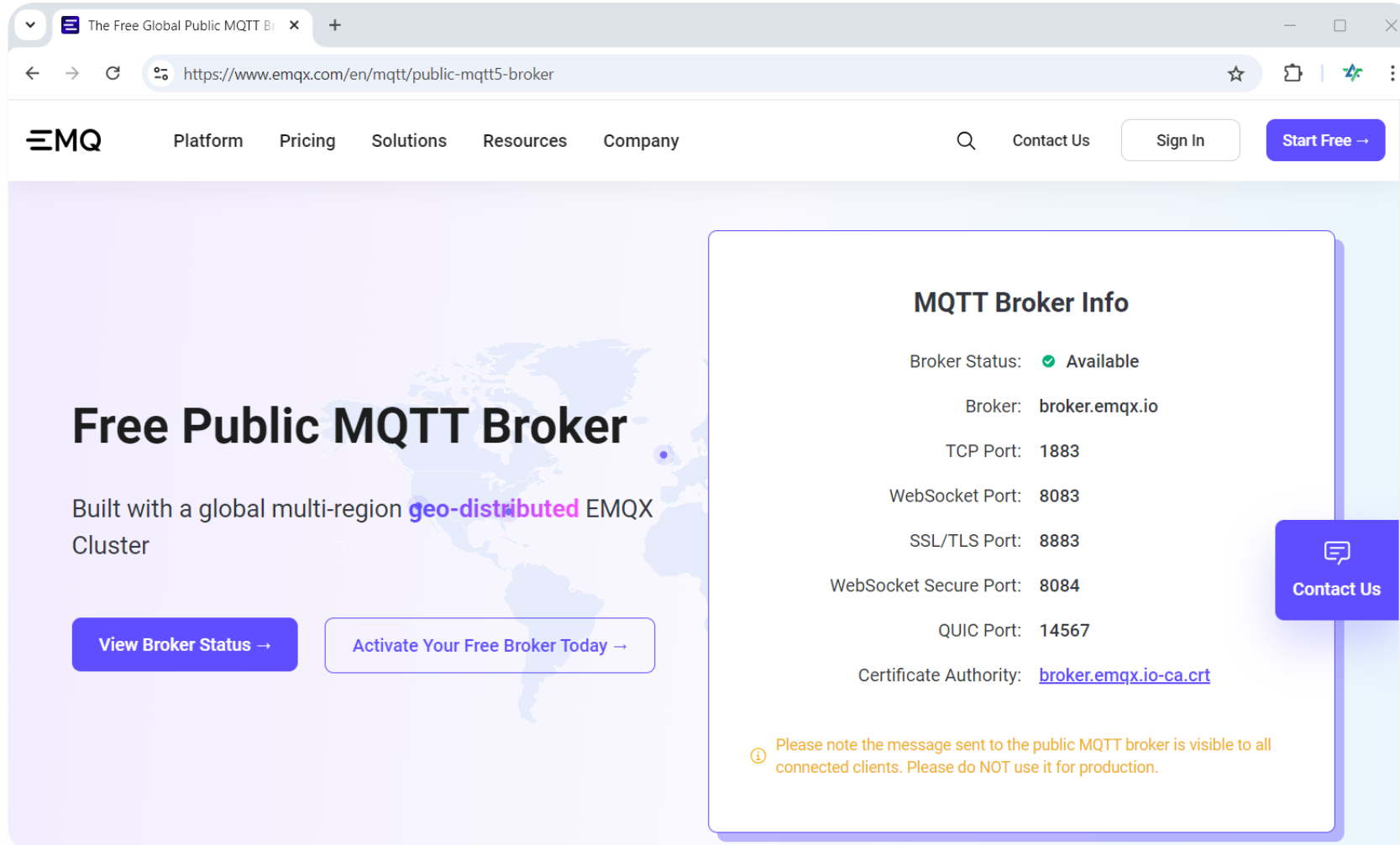
  
**Node-RED**



# การต่อ DS18B20 เข้ากับบอร์ด ATD3.5-S3



# MQTT Broker



The screenshot shows a web browser window with the URL <https://www.emqx.com/en/mqtt/public-mqtt5-broker>. The page features a navigation bar with links for Platform, Pricing, Solutions, Resources, and Company, along with a search icon, Contact Us link, Sign In button, and Start Free button. The main content area is titled "Free Public MQTT Broker" and includes a subheading "Built with a global multi-region geo-distributed EMQX Cluster". Below this are two buttons: "View Broker Status" and "Activate Your Free Broker Today". A "MQTT Broker Info" section on the right lists the following details:

MQTT Broker Info	
Broker Status:	Available
Broker:	broker.emqx.io
TCP Port:	1883
WebSocket Port:	8083
SSL/TLS Port:	8883
WebSocket Secure Port:	8084
QUIC Port:	14567
Certificate Authority:	<a href="#">broker.emqx.io-ca.crt</a>

A disclaimer at the bottom of the info section states: "Please note the message sent to the public MQTT broker is visible to all connected clients. Please do NOT use it for production." A "Contact Us" button is also visible on the right side of the page.





# การติดตั้ง Node-RED

## 1. ติดตั้ง Node.js เวอร์ชัน LTS

<https://nodejs.org/en/download/prebuilt-installer>

## 2. ติดตั้ง Node-RED ผ่าน npm

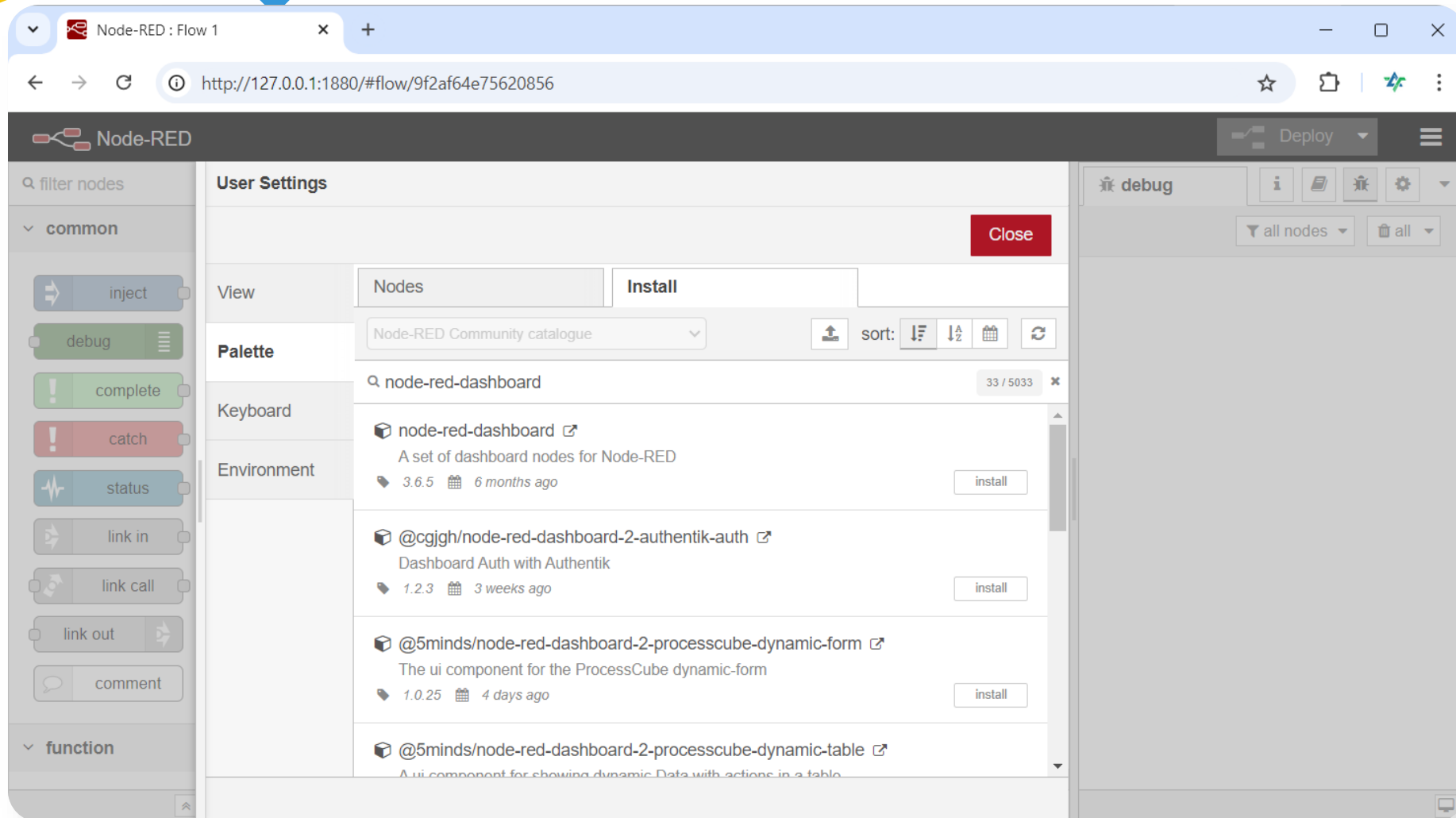
> npm install -g --unsafe-perm node-red

## 3. รัน Node-RED

> node-red



# node-red-dashboard



# ติดต่อสอบถามเพิ่มเติม



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