


SPRINT-2

Date	31 OCTOBER 2022
TEAM ID	PNT2022TMID22196
Project Name	IoT Based smart crop Protection system for agriculture
Maximum mark	10 marks

STEP1: Download and Install NODE JS.



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Downloads


Latest LTS Version: 18.12.1 (includes npm 8.19.2)


Download the Node.js source code or a pre-built installer for your platform, and start developing today.

LTS
Recommended For Most Users

Current
Latest Features


Windows Installer
node-v18.12.1-x64.msi


macOS Installer
node-v18.12.1.pkg


Source Code
node-v18.12.1.tar.gz

Windows Installer (.msi)
Windows Binary (.zip)
macOS Installer (.pkg)
macOS Binary (.tar.gz)
Linux Binaries (x64)

32-bit	64-bit
32-bit	64-bit
64-bit / ARM64	
64-bit	ARM64
64-bit	

STEP2: Setup node.js and configure command prompt for error check.open node-red from the generated link.

```
node-red
4 Nov 18:48:05 - [info] Node-RED version: v3.0.2
4 Nov 18:48:05 - [info] Node.js version: v18.12.0
4 Nov 18:48:05 - [info] Windows_NT 10.0.19044 x64 LE
4 Nov 18:48:26 - [info] Loading palette nodes
4 Nov 18:48:44 - [info] Settings file : C:\Users\ELCOT\.node-red\settings.js
4 Nov 18:48:45 - [info] Context store : 'default' [module=memory]
4 Nov 18:48:45 - [info] User directory : \Users\ELCOT\.node-red
4 Nov 18:48:45 - [warn] Projects disabled : editorTheme.projects.enabled=false
4 Nov 18:48:45 - [info] Flows file : \Users\ELCOT\.node-red\flows.json
4 Nov 18:48:45 - [info] Creating new flow file
4 Nov 18:48:45 - [warn]

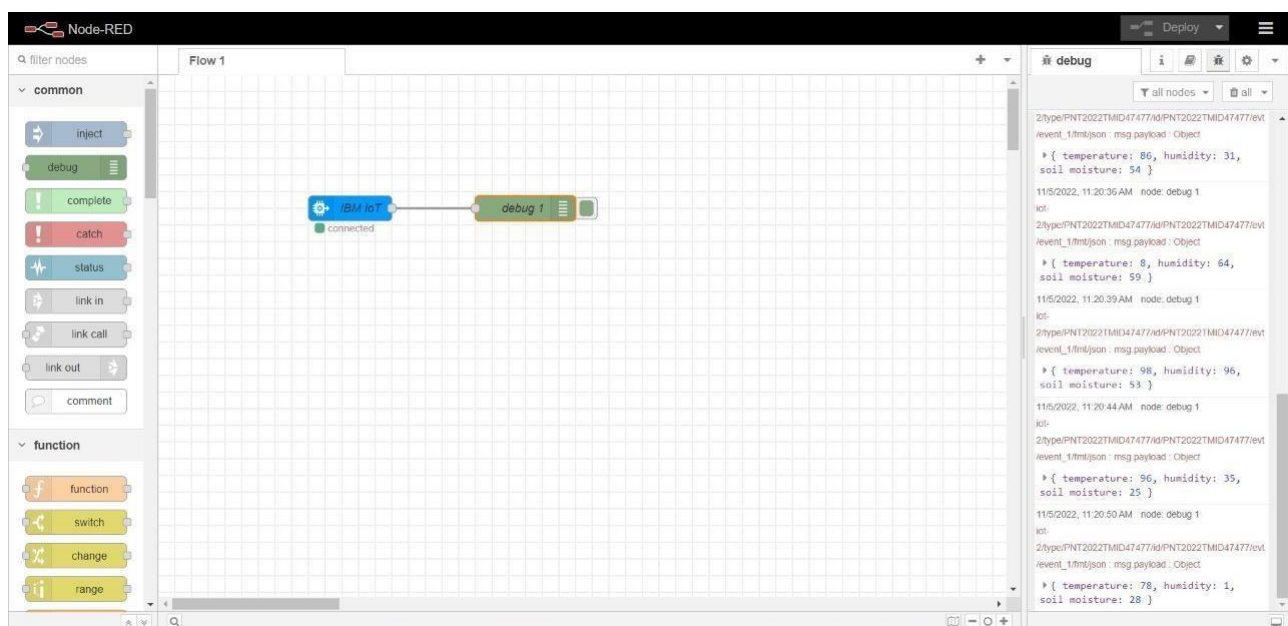
-----
Your flow credentials file is encrypted using a system-generated key.

If the system-generated key is lost for any reason, your credentials
file will not be recoverable, you will have to delete it and re-enter
your credentials.

You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.
-----

4 Nov 18:48:45 - [warn] Encrypted credentials not found
4 Nov 18:48:45 - [info] Starting flows
4 Nov 18:48:46 - [info] Started flows
4 Nov 18:48:46 - [info] Server now running at http://127.0.0.1:1880/
```

STEP3: Connect IBM IOT in and Debug 1 and Deploy.



STEP4: Edit gauge node (Here the gauge nodes are named as Temperature, Humidity and Soil moisture).

The screenshot shows the Node-RED interface with the 'Edit gauge node' dialog open. The gauge is named 'gauge' and is part of the '[CROP PRODUCTION] MONITORIN' group. The 'Info' panel on the right shows the node ID '2fa1b50866772a6e' and type 'ui_gauge'.

Edit gauge node

Delete Cancel Done

Properties

- Group: [CROP PRODUCTION] MONITORIN
- Size: auto
- Type: Gauge
- Label: gauge
- Value format: {{value}}
- Units: units
- Range: min 0 max 10
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0 optional optional 10
- Class: Optional CSS class name(s) for widget

☐ Enabled

Info

Search flows

Flows

- Flow 1
- Subflows
- Global Configuration Nodes

gauge

Node: "2fa1b50866772a6e"

Type: ui_gauge

Hold down **Ctrl** when you **click** on a node to also select all of its connected nodes

The screenshot shows the Node-RED interface with the 'Edit gauge node' dialog open. The gauge is named 'TEMPERATURE' and is part of the '[CROP] MONITORING' group. The 'debug' panel on the right shows the data being received from the IoT node.

Edit gauge node

Delete Cancel Done

Properties

- Group: [CROP] MONITORING
- Size: auto
- Type: Gauge
- Label: TEMPERATURE
- Value format: {{value}}
- Units: C
- Range: min 0 max 100
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0 optional optional 100
- Class: Optional CSS class name(s) for widget
- Name:

☐ Enabled

debug

all nodes all

2/type/PNT2022TMD47477/id/PNT2022TMD47477/ev/...
2/type/PNT2022TMD47477/id/PNT2022TMD47477/ev/...
2/type/PNT2022TMD47477/id/PNT2022TMD47477/ev/...
2/type/PNT2022TMD47477/id/PNT2022TMD47477/ev/...
2/type/PNT2022TMD47477/id/PNT2022TMD47477/ev/...
2/type/PNT2022TMD47477/id/PNT2022TMD47477/ev/...

[{ temperature: 28, humidity: 26, soil moisture: 75 }]
[{ temperature: 2, humidity: 82, soil moisture: 53 }]
[{ temperature: 48, humidity: 95, soil moisture: 82 }]
[{ temperature: 33, humidity: 40, soil moisture: 90 }]
[{ temperature: 43, humidity: 2, soil moisture: 86 }]