


## SPRINT-2

Date	31 OCTOBER 2022
TEAM ID	PNT2022TMID06411
Project Name	IoT Based smart crop Protection system for agriculture
Project Members	Ashwini A Boopathi S Rajalakshmi S
Maximum mark	20 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 <small>node-v18.12.1-x64.msi</small>	 macOS Installer <small>node-v18.12.1.pkg</small>	 Source Code <small>node-v18.12.1.tar.gz</small>

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.

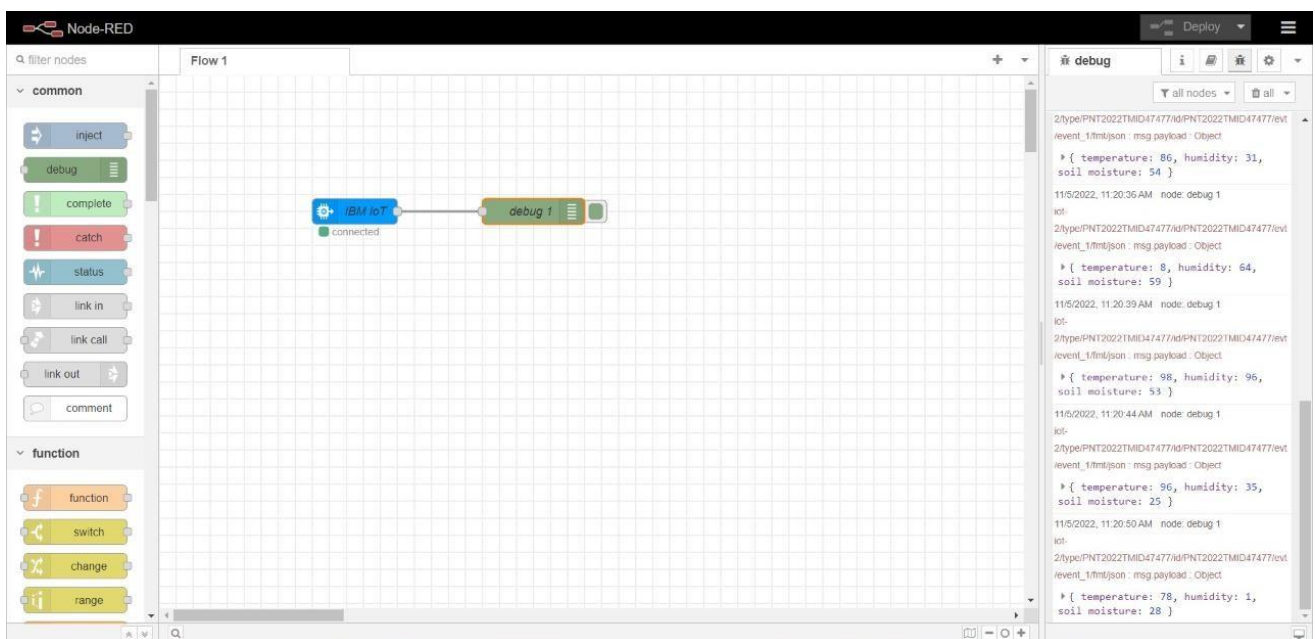
```
node-red
4 Nov 18:48:05 - [info] Node-RED version: v3.0.2
4 Nov 18:48:05 - [info] Node.js version: v18.12.0
4 Nov 18:48:05 - [info] Windows_NT 10.0.19044 x64 LE
4 Nov 18:48:26 - [info] Loading palette nodes
4 Nov 18:48:44 - [info] Settings file : C:\Users\ELCOT\.node-red\settings.js
4 Nov 18:48:45 - [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]

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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 '2fa1b50866f72a6e' 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: "2fa1b50866f72a6e"

Type: ui\_gauge

Hold down [Shift] 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 node ID '2fa1b50866f72a6e' and type 'ui\_gauge'.

**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

2/type/PNT2022TMD47477/id/PNT2022TMD47477/evl/revent\_1/fmt/json : msg payload : Object

{ temperature: 28, humidity: 26, soil moisture: 75 }

11/5/2022, 11:24:38 AM node: debug 1

2/type/PNT2022TMD47477/id/PNT2022TMD47477/evl/revent\_1/fmt/json : msg payload : Object

{ temperature: 2, humidity: 82, soil moisture: 53 }

11/5/2022, 11:24:44 AM node: debug 1

2/type/PNT2022TMD47477/id/PNT2022TMD47477/evl/revent\_1/fmt/json : msg payload : Object

{ temperature: 48, humidity: 95, soil moisture: 82 }

11/5/2022, 11:24:50 AM node: debug 1

2/type/PNT2022TMD47477/id/PNT2022TMD47477/evl/revent\_1/fmt/json : msg payload : Object

{ temperature: 33, humidity: 40, soil moisture: 90 }

11/5/2022, 11:24:56 AM node: debug 1

2/type/PNT2022TMD47477/id/PNT2022TMD47477/evl/revent\_1/fmt/json : msg payload : Object

{ temperature: 43, humidity: 2, soil moisture: 86 }