


## SPRINT-2

Date	31 OCTOBER 2022
TEAM ID	PNT2022TMID41830
Project Name	IoT Based smart crop Protection system for agriculture
Maximum mark	20 marks

### STEP1: Download and Install NODE JS.



HOME | ABOUT | DOWNLOADS | DOCS | GET INVOLVED | SECURITY | CERTIFICATION | NEWS


## 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.

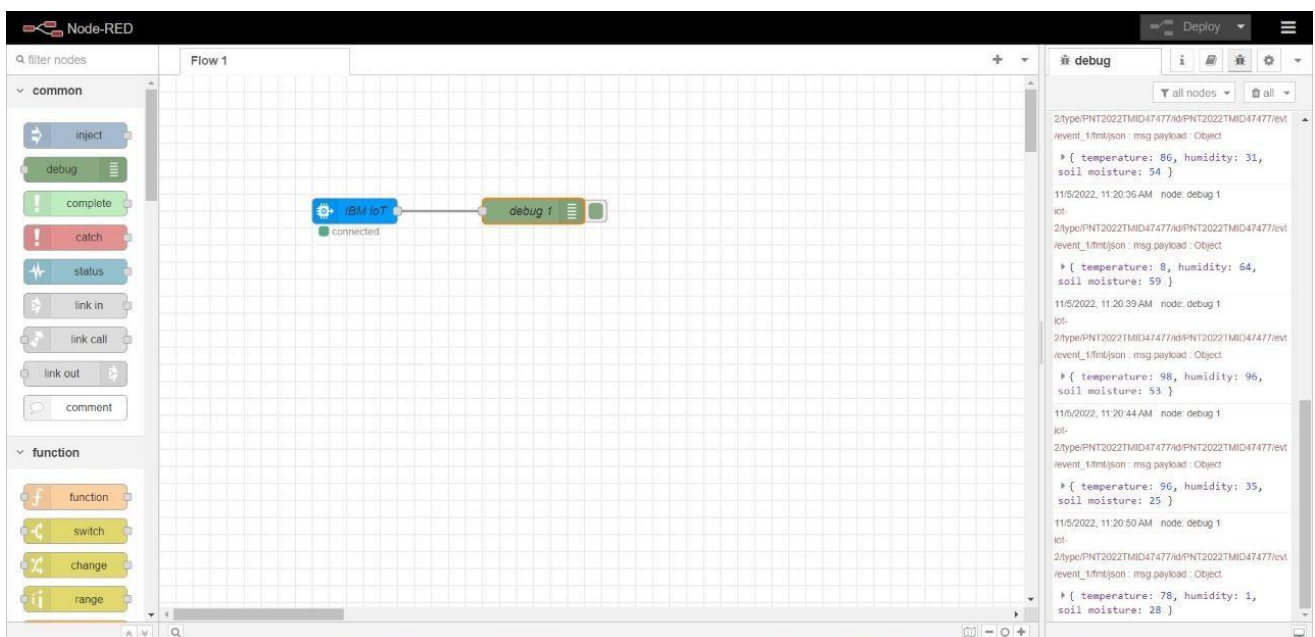
```
node-red
4 Nov 18:48:05 - [info] Node-RED version: v3.0.2
4 Nov 18:48:05 - [info] Node.js version: v18.12.0
4 Nov 18:48:05 - [info] Windows_NT 10.0.19044 x64 LE
4 Nov 18:48:26 - [info] Loading palette nodes
4 Nov 18:48:44 - [info] Settings file : C:\Users\ELCOT\.node-red\settings.js
4 Nov 18:48:45 - [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 a flow named 'Flow 1'. A 'gauge' node is connected to an 'inject' node. The 'Edit gauge node' dialog is open, showing the following 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: ☐

The right sidebar shows the 'info' tab for the 'gauge' node, displaying its ID '2fa1b50866f72a6e' and type 'ui\_gauge'.

The screenshot shows the Node-RED interface with a flow named 'Flow 1'. A 'gauge' node is connected to an 'inject' node. The 'Edit gauge node' dialog is open, showing the following 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: ☐

The right sidebar shows the 'debug' tab, displaying the following data:

```
27/05/2022, 11:24:47 AM node: debug 1
{
  temperature: 28,
  humidity: 26,
  soil moisture: 75
}
11/5/2022, 11:24:38 AM node: debug 1
{
  temperature: 2,
  humidity: 82,
  soil moisture: 53
}
11/5/2022, 11:24:44 AM node: debug 1
{
  temperature: 48,
  humidity: 95,
  soil moisture: 82
}
11/5/2022, 11:24:50 AM node: debug 1
{
  temperature: 33,
  humidity: 40,
  soil moisture: 90
}
11/5/2022, 11:24:56 AM node: debug 1
{
  temperature: 43,
  humidity: 2,
  soil moisture: 86
}
```