

# Project Development

## PhaseSprint-4

### Mobile Application Testing

Date	14 November 2022
Team ID	PNT2022TMID22317
Project Name	Smart Farmer IOT Enabled Smart Farming Application

## Smart Farmer App Dashboard



**Simulator  
Data**



**Motor  
Controls**



**Open  
Weather API  
Data**

## IBM Watson IOT Platform Data

Simulator Data



<b>Temperature</b>	<b>50</b>
<b>Humidity</b>	<b>1</b>
<b>Moisture</b>	<b>19</b>

*Back*

# Motor Controls

Motor Control



## Motor Controls



*Back*

When Motor On Button Press the Motor will be ON

Motor Control



## Motor Controls

Motor is ON



*Back*

**When Motor OFF Button Press the Motor will be OFF**

Motor Control



## Motor Controls

**Motor is OFF**



*Back*

# Output - Python

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\HP\Desktop\sft python code.py =====
2022-11-14 10:16:41,141 ibmiotf.device.Client INFO Connected successfully: d:rsultr:
sf:smartfarm
Published Temperature = 21 C Humidity = 0 % Moisture = 15 % Ph = 10 % to IBM Watson
Published Temperature = 78 C Humidity = 28 % Moisture = 24 % Ph = 8 % to IBM Watson
Published Temperature = 49 C Humidity = 13 % Moisture = 86 % Ph = 5 % to IBM Watson
Published Temperature = 87 C Humidity = 10 % Moisture = 16 % Ph = 6 % to IBM Watson
Published Temperature = 63 C Humidity = 5 % Moisture = 56 % Ph = 4 % to IBM Watson
Published Temperature = 15 C Humidity = 49 % Moisture = 22 % Ph = 4 % to IBM Watson
Published Temperature = 83 C Humidity = 14 % Moisture = 4 % Ph = 6 % to IBM Watson
Published Temperature = 48 C Humidity = 20 % Moisture = 61 % Ph = 4 % to IBM Watson
Published Temperature = 49 C Humidity = 78 % Moisture = 86 % Ph = 1 % to IBM Watson
Published Temperature = 32 C Humidity = 83 % Moisture = 70 % Ph = 7 % to IBM Watson
Published Temperature = 75 C Humidity = 50 % Moisture = 22 % Ph = 5 % to IBM Watson
Published Temperature = 75 C Humidity = 13 % Moisture = 8 % Ph = 5 % to IBM Watson
Published Temperature = 30 C Humidity = 97 % Moisture = 28 % Ph = 4 % to IBM Watson
Published Temperature = 18 C Humidity = 89 % Moisture = 95 % Ph = 3 % to IBM Watson
Published Temperature = 10 C Humidity = 55 % Moisture = 59 % Ph = 2 % to IBM Watson
Published Temperature = 52 C Humidity = 29 % Moisture = 82 % Ph = 6 % to IBM Watson
Published Temperature = 78 C Humidity = 68 % Moisture = 65 % Ph = 10 % to IBM Watson
Published Temperature = 19 C Humidity = 38 % Moisture = 12 % Ph = 5 % to IBM Watson
Published Temperature = 28 C Humidity = 99 % Moisture = 18 % Ph = 8 % to IBM Watson
Published Temperature = 4 C Humidity = 47 % Moisture = 10 % Ph = 4 % to IBM Watson
```

# Node-RED Output

The screenshot displays the Node-RED web interface in a browser. The top navigation bar includes tabs for 'UI Control', 'Simulator Data', 'Open Weather API', 'Controls', and 'Register Here & Login'. The main workspace shows a flow diagram with the following components and connections:

- Inputs:** Two 'Motor On' nodes and one 'Motor Off' node on the left.
- Processing:** A 'Send Device Command' node (blue) receives input from all three motor nodes. Below it, a 'msg.payload' node (green) is connected to the 'Send Device Command' node.
- Output:** A 'command function node' (orange) receives input from a '[get] /control' node (yellow) and sends output to an 'http' node (yellow).

The right-hand 'debug' console shows a series of messages with the following structure:

```
{ command: "motoron" }
```

The messages alternate between 'motoron' and 'motoroff' commands, each with a timestamp and node ID (e.g., 11/14/2022, 11:16:30 AM node: a17b48e0.e0dd58).

