การสร้าง MQTT Server บน Raspberry Pi เพื่อใช้งาน Chatbot LINE ในฟาร์มอัจฉริยะ

Chatbot LINE from Raspberry Pi MQTT Server for Smart Farming

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6/6 - คำถามท้ายบทเพื่อทดสอบความเข้าใจ

Quiz_301 – Blynk with Node-RED

- ทดสอบควบคุม 4 LED ด้วย Raspberry Pi ผ่าน Node-RED
- เพิ่มเติมให้ส่งข้อมูล Temperature ไปแสดงที่ Gauge บน Blynk

Node-RED Code

```
[
   {
      "id": "9a105b4d0fde208f",
      "type": "tab",
      "label": "Flow 8",
      "disabled": false,
      "info": "",
      "env": []
   },
   {
      "id": "32079b6e2c4553e7",
      "type": "rpi-gpio out",
      "z": "9a105b4d0fde208f",
      "name": "",
      "pin": "18",
      "set": "",
      "level": "0",
      "freq": "",
      "out": "out",
      "bcm": true,
      "x": 600,
      "y": 160,
      "wires": []
   },
```

```
  {
    "id": "c291383849304504",
    "type": "rpi-gpio out",
    "z": "9a105b4d0fde208f",
    "name": "",
    "pin": "23",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 600,
    "y": 220,
    "wires": []
  },
  {
    "id": "0a70d5a961fb5398",
    "type": "rpi-gpio out",
    "z": "9a105b4d0fde208f",
    "name": "",
    "pin": "24",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 600,
    "y": 280,
    "wires": []
  },
  {
    "id": "6e09787c25210d9d",
    "type": "rpi-gpio out",
    "z": "9a105b4d0fde208f",
    "name": "",
```

```
    "pin": "25",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 600,
    "y": 340,
    "wires": []
  },
  {
    "id": "f77fffba19e32589",
    "type": "debug",
    "z": "9a105b4d0fde208f",
    "name": "",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "payload",
    "targetType": "msg",
    "statusVal": "",
    "statusType": "auto",
    "x": 710,
    "y": 520,
    "wires": []
  },
  {
    "id": "4802468751ae1a7e",
    "type": "function",
    "z": "9a105b4d0fde208f",
    "name": "Tempp",
    "func": "msg.payload = Math.round( Math.random() *100)\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
```

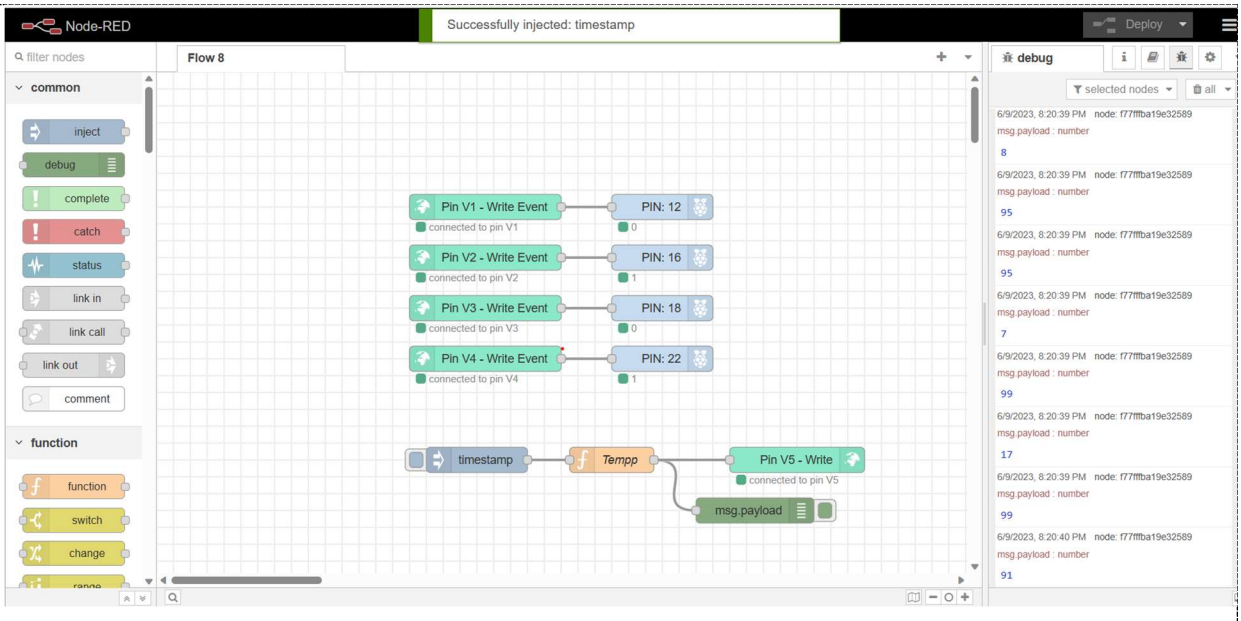
```
    "initialize": "",
    "finalize": "",
    "libs": [],
    "x": 540,
    "y": 460,
    "wires": [
      [
        "f77fffba19e32589",
        "f8087aeff21622cc"
      ]
    ]
  },
  {
    "id": "3209e043d969f9a6",
    "type": "inject",
    "z": "9a105b4d0fde208f",
    "name": "",
    "props": [
      {
        "p": "payload"
      },
      {
        "p": "topic",
        "vt": "str"
      }
    ],
    "repeat": "",
    "crontab": "",
    "once": false,
    "onceDelay": 0.1,
    "topic": "",
    "payload": "",
    "payloadType": "date",
    "x": 380,
    "y": 460,
```

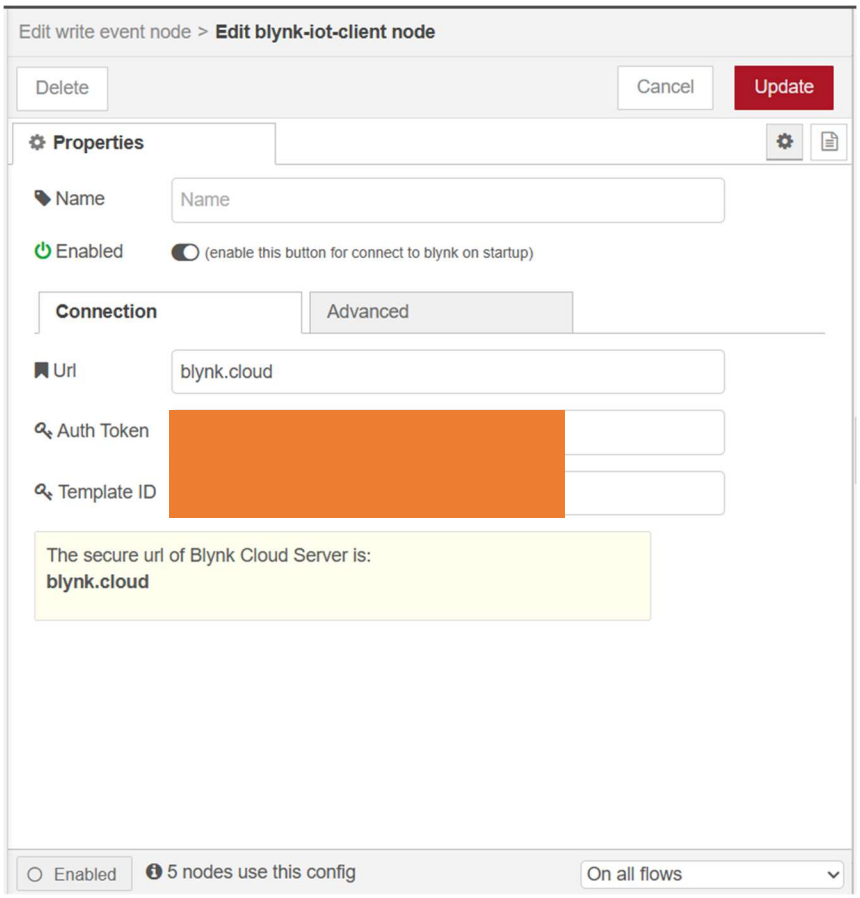
```
    "wires": [
      [
        "4802468751ae1a7e"
      ]
    ]
  },
  {
    "id": "ace9d6e91ea58217",
    "type": "blynk-iot-in-write",
    "z": "9a105b4d0fde208f",
    "name": "",
    "pin": "1",
    "pin_all": 0,
    "client": "5220722da43683e5",
    "x": 390,
    "y": 160,
    "wires": [
      [
        "32079b6e2c4553e7"
      ]
    ]
  },
  {
    "id": "dedafef0ad11a7c0",
    "type": "blynk-iot-in-write",
    "z": "9a105b4d0fde208f",
    "name": "",
    "pin": "2",
    "pin_all": 0,
    "client": "5220722da43683e5",
    "x": 390,
    "y": 220,
    "wires": [
      [
        "c291383849304504"
```

```
        ]
      ]
   },
   {
      "id": "c79c126825c3e1fa",
      "type": "blynk-iot-in-write",
      "z": "9a105b4d0fde208f",
      "name": "",
      "pin": "3",
      "pin_all": 0,
      "client": "5220722da43683e5",
      "x": 390,
      "y": 280,
      "wires": [
         [
            "0a70d5a961fb5398"
         ]
      ]
   },
   {
      "id": "6d473dbe5528b0a5",
      "type": "blynk-iot-in-write",
      "z": "9a105b4d0fde208f",
      "name": "",
      "pin": "4",
      "pin_all": 0,
      "client": "5220722da43683e5",
      "x": 390,
      "y": 340,
      "wires": [
         [
            "6e09787c25210d9d"
         ]
      ]
   },
```

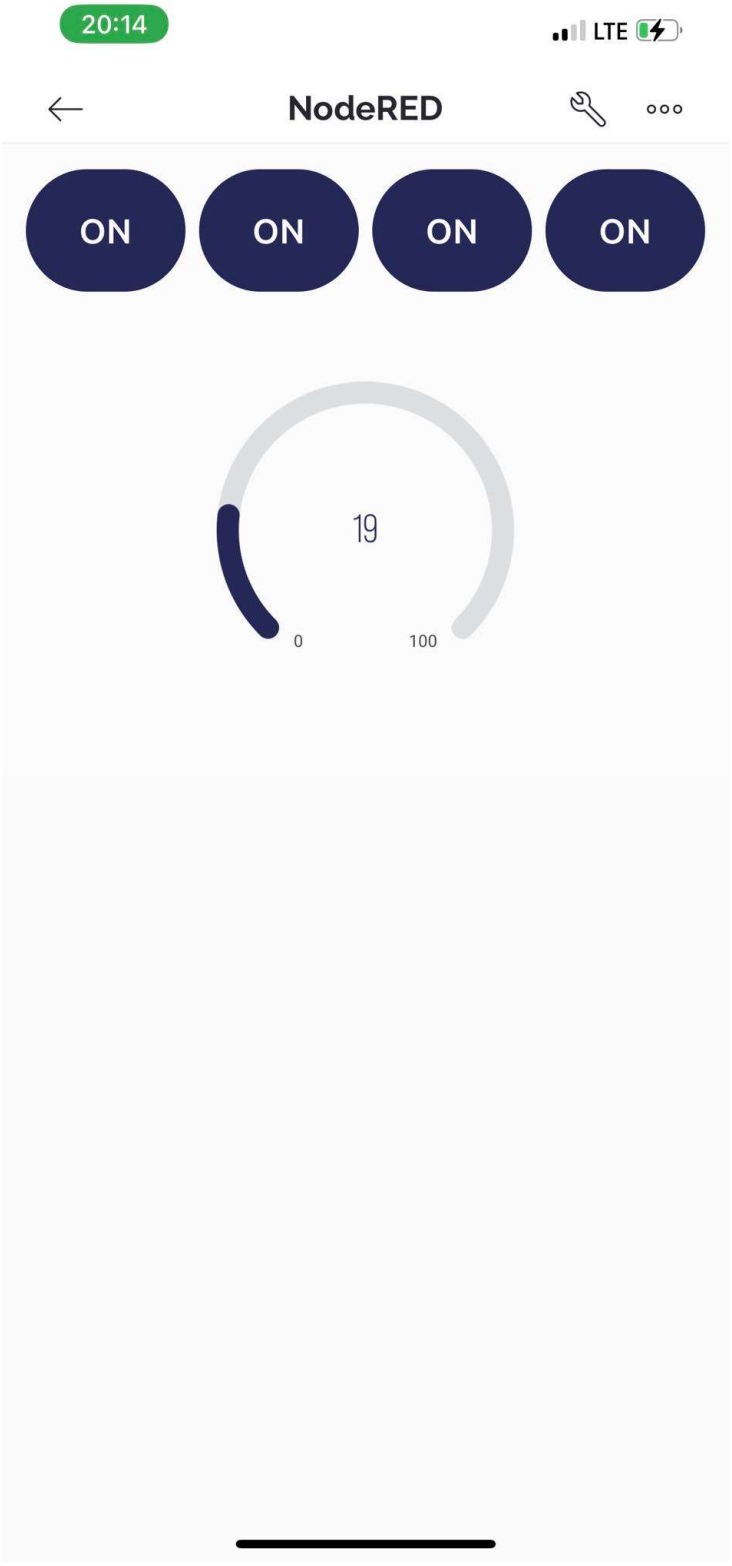
```
    {
        "id": "f8087aeff21622cc",
        "type": "blynk-iot-out-write",
        "z": "9a105b4d0fde208f",
        "name": "",
        "pin": "5",
        "pinmode": 0,
        "client": "5220722da43683e5",
        "x": 760,
        "y": 460,
        "wires": []
    },
    {
        "id": "5220722da43683e5",
        "type": "blynk-iot-client",
        "name": "",
        "path": "blynk.cloud",
        "key": "pjC2F6yu5HNvWcMPnPLOpWf9IfjG-MRZ",
        "tmpl": "TMPL6ZQQtVQPW",
        "dbg_all": false,
        "dbg_log": false,
        "dbg_prop": false,
        "dbg_sync": false,
        "dbg_low": false,
        "dbg_pins": "",
        "multi_cmd": false,
        "enabled": true
    }
]
```


Node-RED Flow


Node-RED
Successfully injected: timestamp
Deploy
filter nodes
Flow 8
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
Pin V1 - Write Event
connected to pin V1
PIN: 12
Pin V2 - Write Event
connected to pin V2
PIN: 16
Pin V3 - Write Event
connected to pin V3
PIN: 18
Pin V4 - Write Event
connected to pin V4
PIN: 22
timestamp
Tempp
Pin V5 - Write
connected to pin V5
msg.payload
debug
selected nodes
all
6/9/2023, 8:20:39 PM node: f77fffba19e32589
msg.payload : number
8
95
95
7
99
17
99
6/9/2023, 8:20:40 PM node: f77fffba19e32589
msg.payload : number
91

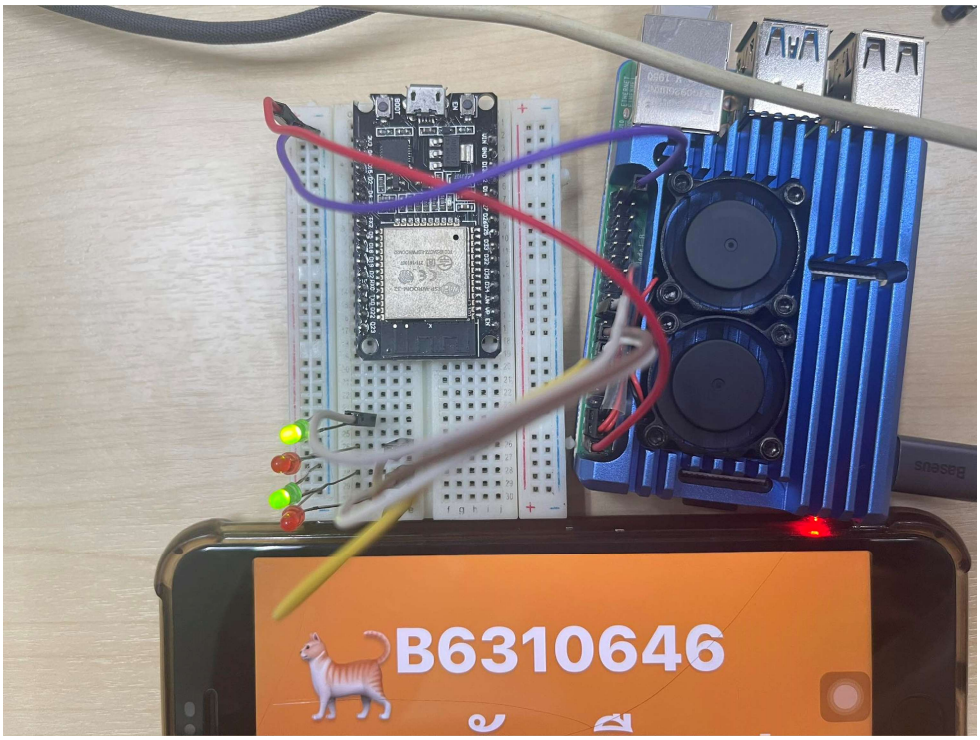

Edit write event node > Edit blynk-iot-client node
Delete
Cancel
Update
Properties
Name
Name
Enabled
(enable this button for connect to blynk on startup)
Connection
Advanced
Url
blynk.cloud
Auth Token
Template ID
The secure url of Blynk Cloud Server is:
blynk.cloud
Enabled
5 nodes use this config
On all flows

หน้าจอ Blynk



รูปการทดสอบ 1

รูปการทดสอบ 2



Quiz_302 – MQTT Client with Node-RED

- ทดสอบควบคุม 4 LED ด้วย Raspberry Pi ผ่าน Node-RED
- เพิ่มเติมให้ส่งข้อมูล Temperature ไปแสดงที่ บน Server

Node-RED Code

```
[
   {
      "id": "944d911ccc3a8047",
      "type": "tab",
      "label": "Flow 14",
      "disabled": false,
      "info": "",
      "env": []
   },
   {
      "id": "e01a2b685288a34c",
      "type": "mqtt in",
      "z": "944d911ccc3a8047",
      "name": "",
      "topic": "Flow14",
      "qos": "2",
      "datatype": "auto",
      "broker": "bc2d95c41d54be10",
      "nl": false,
      "rap": true,
      "rh": 0,
      "inputs": 0,
      "x": 110,
      "y": 140,
      "wires": [
         [
            "be8219696a6e0893",
            "b0ca68f6060e7522",
            "0f7c27b34f43efc5",
            "6ecb9ec872745efa"
```

```
        ]
      ]
   },
   {
      "id": "be8219696a6e0893",
      "type": "change",
      "z": "944d911ccc3a8047",
      "name": "LED1",
      "rules": [
         {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "OFF1",
            "fromt": "str",
            "to": "false",
            "tot": "bool"
         },
         {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "ON1",
            "fromt": "str",
            "to": "true",
            "tot": "bool"
         }
      ],
      "action": "",
      "property": "",
      "from": "",
      "to": "",
      "reg": false,
      "x": 310,
      "y": 140,
```

```
    "wires": [
      [
        "4188c4eeb002787d"
      ]
    ]
  },
  {
    "id": "4188c4eeb002787d",
    "type": "rpi-gpio out",
    "z": "944d911ccc3a8047",
    "name": "",
    "pin": "18",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 540,
    "y": 140,
    "wires": []
  },
  {
    "id": "b0ca68f6060e7522",
    "type": "change",
    "z": "944d911ccc3a8047",
    "name": "LED2",
    "rules": [
      {
        "t": "change",
        "p": "payload",
        "pt": "msg",
        "from": "OFF2",
        "fromt": "str",
        "to": "false",
        "tot": "bool"
```

```
        },
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "ON2",
            "fromt": "str",
            "to": "true",
            "tot": "bool"
        }
    ],
    "action": "",
    "property": "",
    "from": "",
    "to": "",
    "reg": false,
    "x": 310,
    "y": 200,
    "wires": [
        [
            "280475180b97d702"
        ]
    ]
},
{
    "id": "0f7c27b34f43efc5",
    "type": "change",
    "z": "944d911ccc3a8047",
    "name": "LED3",
    "rules": [
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "OFF3",
```

```
            "fromt": "str",
            "to": "false",
            "tot": "bool"
        },
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "ON3",
            "fromt": "str",
            "to": "true",
            "tot": "bool"
        }
    ],
    "action": "",
    "property": "",
    "from": "",
    "to": "",
    "reg": false,
    "x": 310,
    "y": 260,
    "wires": [
        [
            "529130510fcb64d4"
        ]
    ]
},
{
    "id": "6ecb9ec872745efa",
    "type": "change",
    "z": "944d911ccc3a8047",
    "name": "LED4",
    "rules": [
        {
            "t": "change",
```

```
            "p": "payload",
            "pt": "msg",
            "from": "OFF4",
            "fromt": "str",
            "to": "false",
            "tot": "bool"
        },
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "ON4",
            "fromt": "str",
            "to": "true",
            "tot": "bool"
        }
    ],
    "action": "",
    "property": "",
    "from": "",
    "to": "",
    "reg": false,
    "x": 310,
    "y": 320,
    "wires": [
        [
            "600326651a3fa1e5"
        ]
    ]
},
{
    "id": "280475180b97d702",
    "type": "rpi-gpio out",
    "z": "944d911ccc3a8047",
    "name": "",
```

```
    "pin": "23",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 540,
    "y": 200,
    "wires": []
  },
  {
    "id": "529130510fcb64d4",
    "type": "rpi-gpio out",
    "z": "944d911ccc3a8047",
    "name": "",
    "pin": "24",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 540,
    "y": 260,
    "wires": []
  },
  {
    "id": "600326651a3fa1e5",
    "type": "rpi-gpio out",
    "z": "944d911ccc3a8047",
    "name": "",
    "pin": "25",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
```

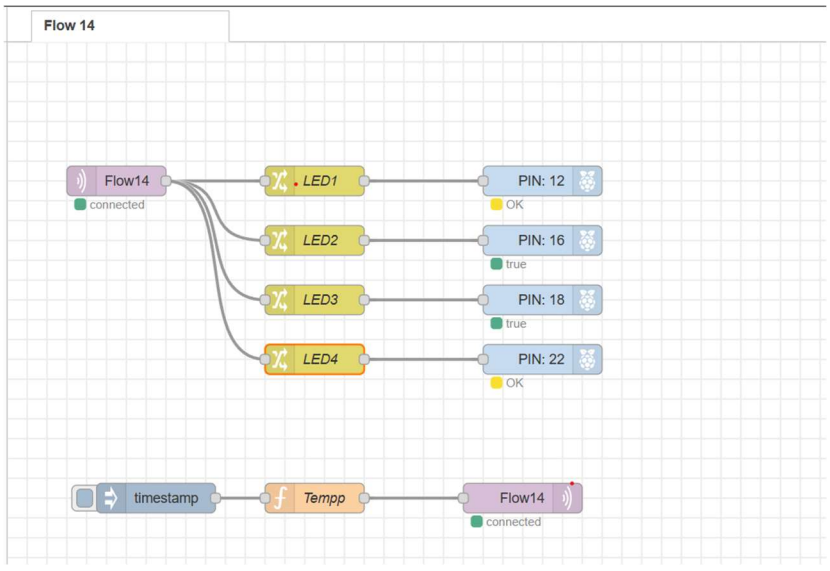
```
    "bcm": true,
    "x": 540,
    "y": 320,
    "wires": []
  },
  {
    "id": "885e3b79412692e4",
    "type": "inject",
    "z": "944d911ccc3a8047",
    "name": "",
    "props": [
      {
        "p": "payload"
      },
      {
        "p": "topic",
        "vt": "str"
      }
    ],
    "repeat": "",
    "crontab": "",
    "once": false,
    "onceDelay": 0.1,
    "topic": "",
    "payload": "",
    "payloadType": "date",
    "x": 150,
    "y": 460,
    "wires": [
      [
        "d7885f16122ee0de"
      ]
    ]
  },
  {
```

```
      "id": "d7885f16122ee0de",
      "type": "function",
      "z": "944d911ccc3a8047",
      "name": "Tempp",
      "func": "msg.payload = \"Random Temperature = \"+Math.round( Math.random()
*100)\nreturn msg;",
      "outputs": 1,
      "noerr": 0,
      "initialize": "",
      "finalize": "",
      "libs": [],
      "x": 310,
      "y": 460,
      "wires": [
         [
            "d9c9eb37707da3bc"
         ]
      ]
   },
   {
      "id": "d9c9eb37707da3bc",
      "type": "mqtt out",
      "z": "944d911ccc3a8047",
      "name": "",
      "topic": "Flow14",
      "qos": "",
      "retain": "",
      "respTopic": "",
      "contentType": "",
      "userProps": "",
      "correl": "",
      "expiry": "",
      "broker": "2134966334678988",
      "x": 520,
      "y": 460,
```

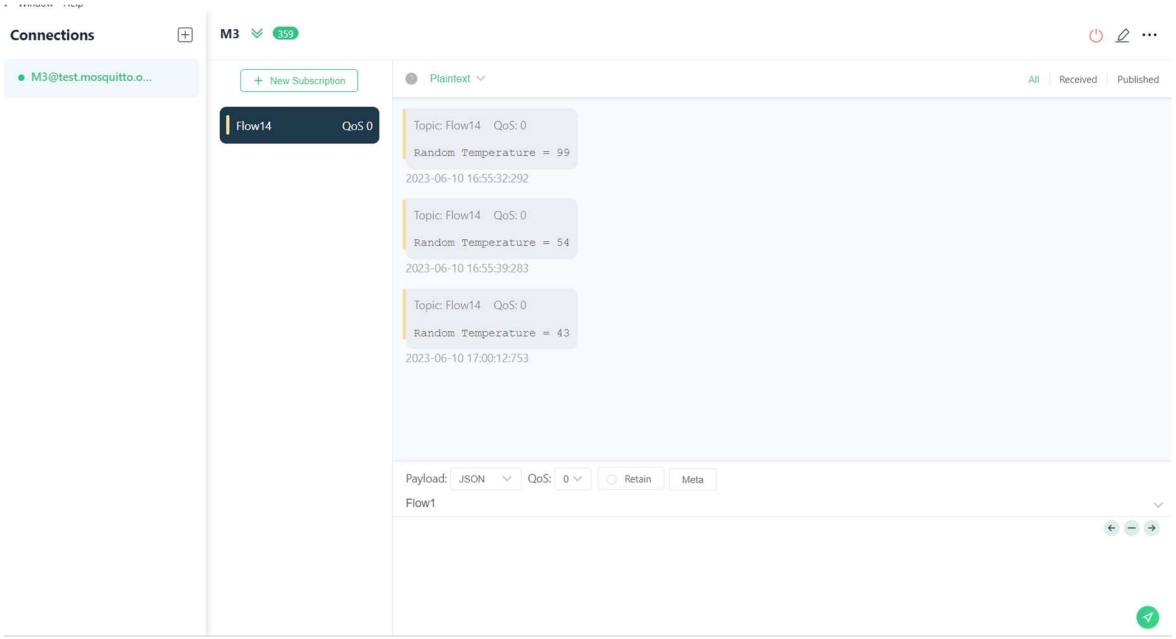
```
    "wires": []
  },
  {
    "id": "bc2d95c41d54be10",
    "type": "mqtt-broker",
    "name": "",
    "broker": "test.mosquitto.org",
    "port": "1883",
    "clientid": "",
    "autoConnect": true,
    "usetls": false,
    "protocolVersion": "4",
    "keepalive": "60",
    "cleansession": true,
    "birthTopic": "",
    "birthQos": "0",
    "birthPayload": "",
    "birthMsg": {},
    "closeTopic": "",
    "closeQos": "0",
    "closePayload": "",
    "closeMsg": {},
    "willTopic": "",
    "willQos": "0",
    "willPayload": "",
    "willMsg": {},
    "userProps": "",
    "sessionExpiry": ""
  },
  {
    "id": "2134966334678988",
    "type": "mqtt-broker",
    "name": "",
    "broker": "test.mosquitto.org",
    "port": "1883",
```

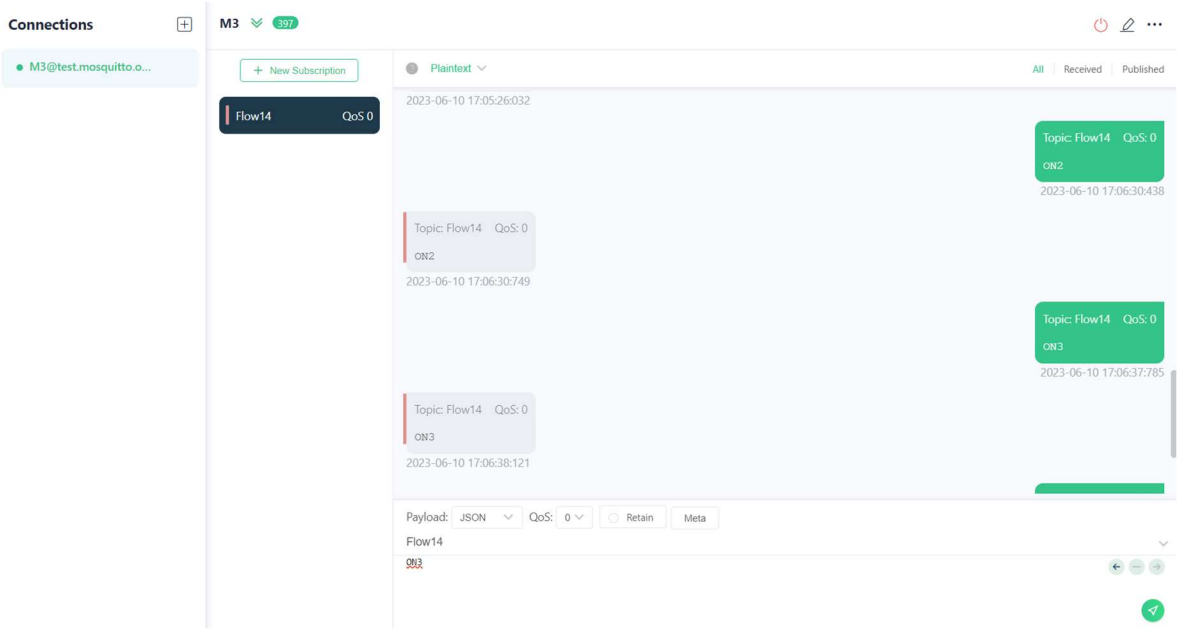
```
        "clientid": "",
        "autoConnect": true,
        "usetls": false,
        "protocolVersion": "4",
        "keepalive": "60",
        "cleansession": true,
        "birthTopic": "",
        "birthQos": "0",
        "birthPayload": "",
        "birthMsg": {},
        "closeTopic": "",
        "closeQos": "0",
        "closePayload": "",
        "closeMsg": {},
        "willTopic": "",
        "willQos": "0",
        "willPayload": "",
        "willMsg": {},
        "userProps": "",
        "sessionExpiry": ""
    }
]
```


Node-RED Flow

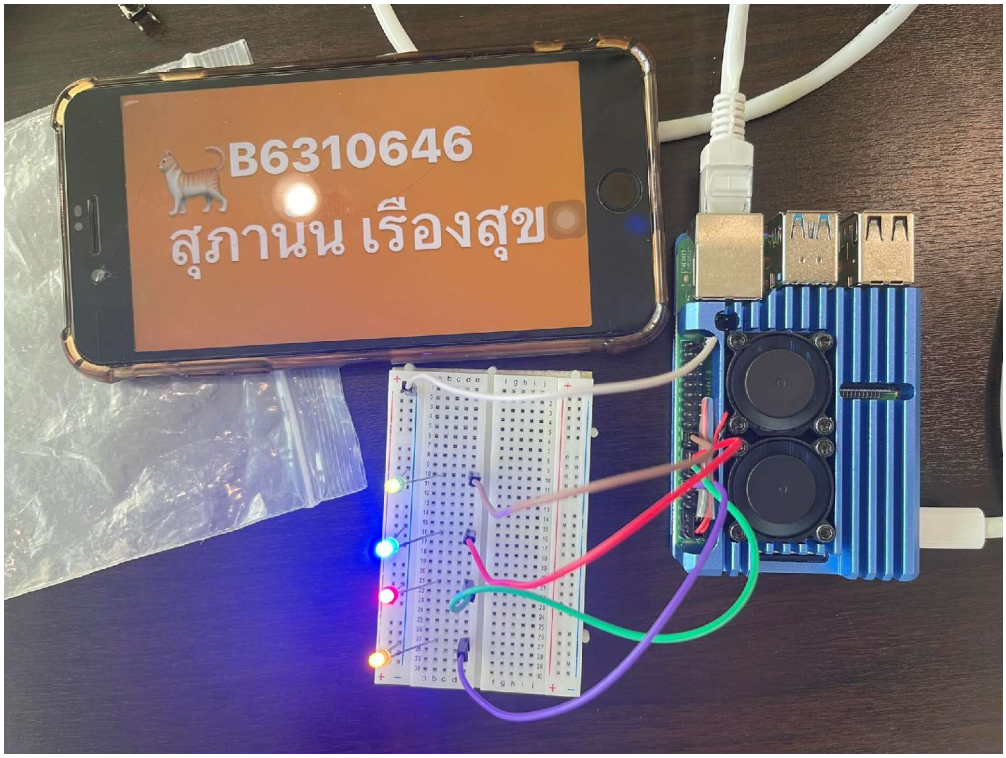


หน้าจอ MQTT Lens

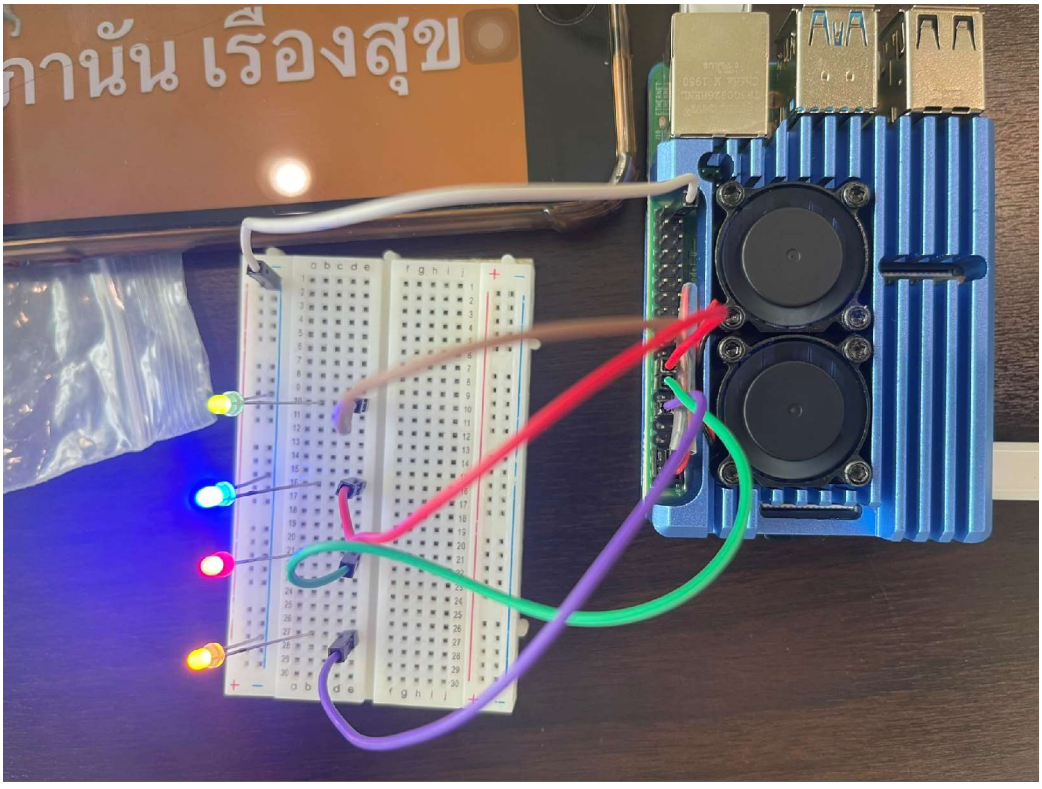




รูปการทดสอบ 1



รูปการทดสอบ 2



Quiz_303 – MQTT Server on Raspberry Pi

- ทดสอบควบคุม 4 LED ด้วย Raspberry Pi ผ่าน Node-RED ไปยัง private server
- เพิ่มเติมให้ส่งข้อมูล Temperature ไปแสดงที่ บน private Server


```
[
   {
      "id": "8b2e65eaa8a1b981",
      "type": "tab",
      "label": "Flow 14",
      "disabled": false,
      "info": "",
      "env": []
   },
   {
      "id": "d77816ea00d62cef",
      "type": "mqtt in",
      "z": "8b2e65eaa8a1b981",
      "name": "",
      "topic": "Flow14",
      "qos": "2",
      "datatype": "auto",
      "broker": "35046022507d36dd",
      "nl": false,
      "rap": true,
      "rh": 0,
      "inputs": 0,
      "x": 110,
      "y": 140,
      "wires": [
         [
            "eba5f855c1e60f2b",
            "654e4f3d2e39de59",
            "34b7a7cf04c52116",
            "a8475f845cf56db7"
         ]
```

```
    ]
  },
  {
    "id": "eba5f855c1e60f2b",
    "type": "change",
    "z": "8b2e65eaa8a1b981",
    "name": "LED1",
    "rules": [
      {
        "t": "change",
        "p": "payload",
        "pt": "msg",
        "from": "OFF1",
        "fromt": "str",
        "to": "false",
        "tot": "bool"
      },
      {
        "t": "change",
        "p": "payload",
        "pt": "msg",
        "from": "ON1",
        "fromt": "str",
        "to": "true",
        "tot": "bool"
      }
    ],
    "action": "",
    "property": "",
    "from": "",
    "to": "",
    "reg": false,
    "x": 310,
    "y": 140,
    "wires": [
```

```
        [
            "20ccbf9ee777b512"
        ]
    ]
},
{
    "id": "20ccbf9ee777b512",
    "type": "rpi-gpio out",
    "z": "8b2e65eaa8a1b981",
    "name": "",
    "pin": "18",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 540,
    "y": 140,
    "wires": []
},
{
    "id": "654e4f3d2e39de59",
    "type": "change",
    "z": "8b2e65eaa8a1b981",
    "name": "LED2",
    "rules": [
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "OFF2",
            "fromt": "str",
            "to": "false",
            "tot": "bool"
        },
```

```
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "ON2",
            "fromt": "str",
            "to": "true",
            "tot": "bool"
        }
    ],
    "action": "",
    "property": "",
    "from": "",
    "to": "",
    "reg": false,
    "x": 310,
    "y": 200,
    "wires": [
        [
            "8deb816fd15e66d4"
        ]
    ]
},
{
    "id": "34b7a7cf04c52116",
    "type": "change",
    "z": "8b2e65eaa8a1b981",
    "name": "LED3",
    "rules": [
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "OFF3",
            "fromt": "str",
```

```
            "to": "false",
            "tot": "bool"
        },
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "ON3",
            "fromt": "str",
            "to": "true",
            "tot": "bool"
        }
    ],
    "action": "",
    "property": "",
    "from": "",
    "to": "",
    "reg": false,
    "x": 310,
    "y": 260,
    "wires": [
        [
            "dd0dd00eb2c37f70"
        ]
    ]
},
{
    "id": "a8475f845cf56db7",
    "type": "change",
    "z": "8b2e65eaa8a1b981",
    "name": "LED4",
    "rules": [
        {
            "t": "change",
            "p": "payload",
```

```
            "pt": "msg",
            "from": "OFF4",
            "fromt": "str",
            "to": "false",
            "tot": "bool"
        },
        {
            "t": "change",
            "p": "payload",
            "pt": "msg",
            "from": "ON4",
            "fromt": "str",
            "to": "true",
            "tot": "bool"
        }
    ],
    "action": "",
    "property": "",
    "from": "",
    "to": "",
    "reg": false,
    "x": 310,
    "y": 320,
    "wires": [
        [
            "d2606726e88afbd8"
        ]
    ]
},
{
    "id": "8deb816fd15e66d4",
    "type": "rpi-gpio out",
    "z": "8b2e65eaa8a1b981",
    "name": "",
    "pin": "23",
```

```
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 540,
    "y": 200,
    "wires": []
  },
  {
    "id": "dd0dd00eb2c37f70",
    "type": "rpi-gpio out",
    "z": "8b2e65eaa8a1b981",
    "name": "",
    "pin": "24",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
    "x": 540,
    "y": 260,
    "wires": []
  },
  {
    "id": "d2606726e88afbd8",
    "type": "rpi-gpio out",
    "z": "8b2e65eaa8a1b981",
    "name": "",
    "pin": "25",
    "set": "",
    "level": "0",
    "freq": "",
    "out": "out",
    "bcm": true,
```

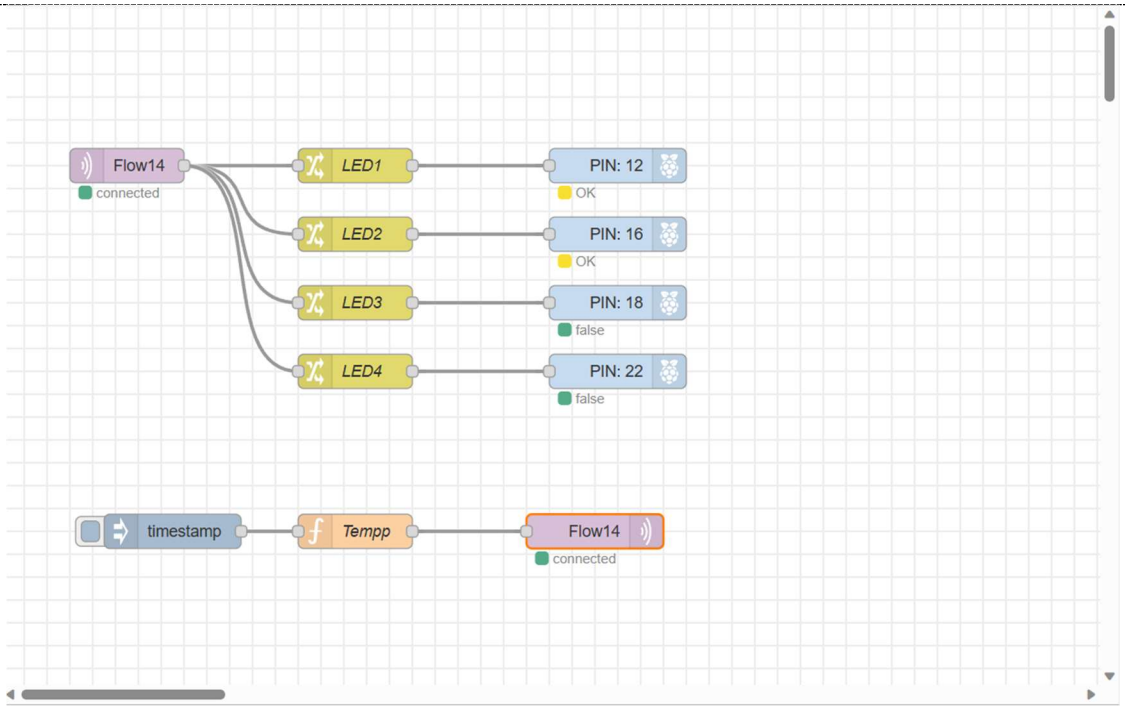
```
    "x": 540,
    "y": 320,
    "wires": []
  },
  {
    "id": "29507f8258751e87",
    "type": "inject",
    "z": "8b2e65eaa8a1b981",
    "name": "",
    "props": [
      {
        "p": "payload"
      },
      {
        "p": "topic",
        "vt": "str"
      }
    ],
    "repeat": "",
    "crontab": "",
    "once": false,
    "onceDelay": 0.1,
    "topic": "",
    "payload": "",
    "payloadType": "date",
    "x": 150,
    "y": 460,
    "wires": [
      [
        "4489033cbda1a383"
      ]
    ]
  },
  {
    "id": "4489033cbda1a383",
```

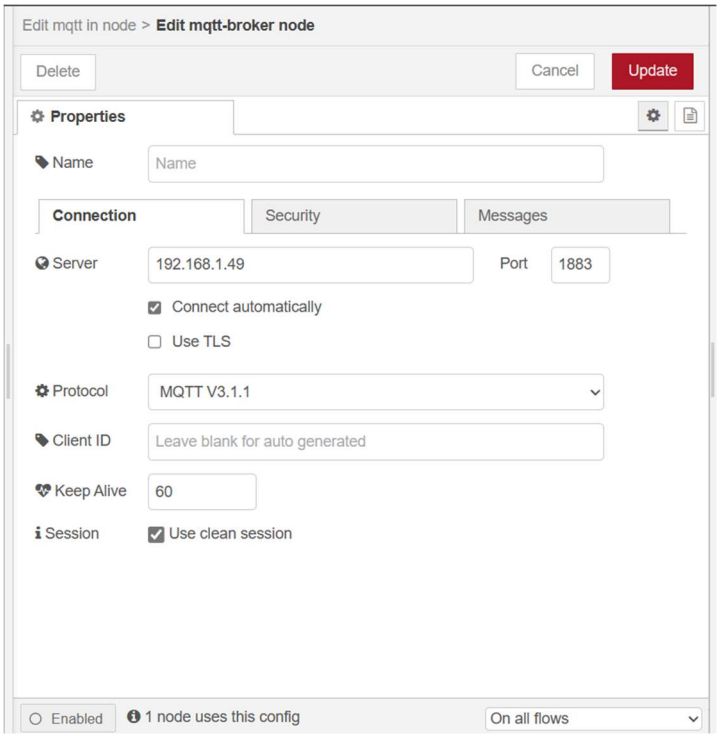
```
    "type": "function",
    "z": "8b2e65eaa8a1b981",
    "name": "Tempp",
    "func": "msg.payload = \"Random Temperature = \"+Math.round(
Math.random() *100)\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "initialize": "",
    "finalize": "",
    "libs": [],
    "x": 310,
    "y": 460,
    "wires": [
      [
        "ad917f879d2a9742"
      ]
    ]
  },
  {
    "id": "ad917f879d2a9742",
    "type": "mqtt out",
    "z": "8b2e65eaa8a1b981",
    "name": "Flow14",
    "topic": "Flow14",
    "qos": "",
    "retain": "",
    "respTopic": "",
    "contentType": "",
    "userProps": "",
    "correl": "",
    "expiry": "",
    "broker": "217dee362b8720b0",
    "x": 520,
    "y": 460,
    "wires": []
```

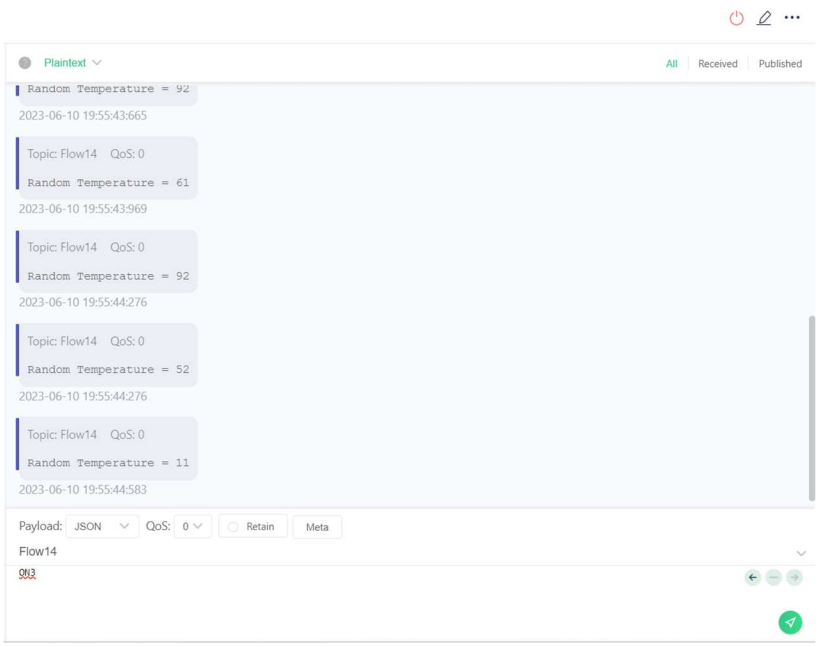
```
  },
  {
    "id": "35046022507d36dd",
    "type": "mqtt-broker",
    "name": "",
    "broker": "test.mosquitto.org",
    "port": "1883",
    "clientid": "",
    "autoConnect": true,
    "usetls": false,
    "protocolVersion": "4",
    "keepalive": "60",
    "cleansession": true,
    "birthTopic": "",
    "birthQos": "0",
    "birthPayload": "",
    "birthMsg": {},
    "closeTopic": "",
    "closeQos": "0",
    "closePayload": "",
    "closeMsg": {},
    "willTopic": "",
    "willQos": "0",
    "willPayload": "",
    "willMsg": {},
    "userProps": "",
    "sessionExpiry": ""
  },
  {
    "id": "217dee362b8720b0",
    "type": "mqtt-broker",
    "name": "MQTT-Private-Server",
    "broker": "192.168.1.49",
    "port": "1883",
    "clientid": "",
```

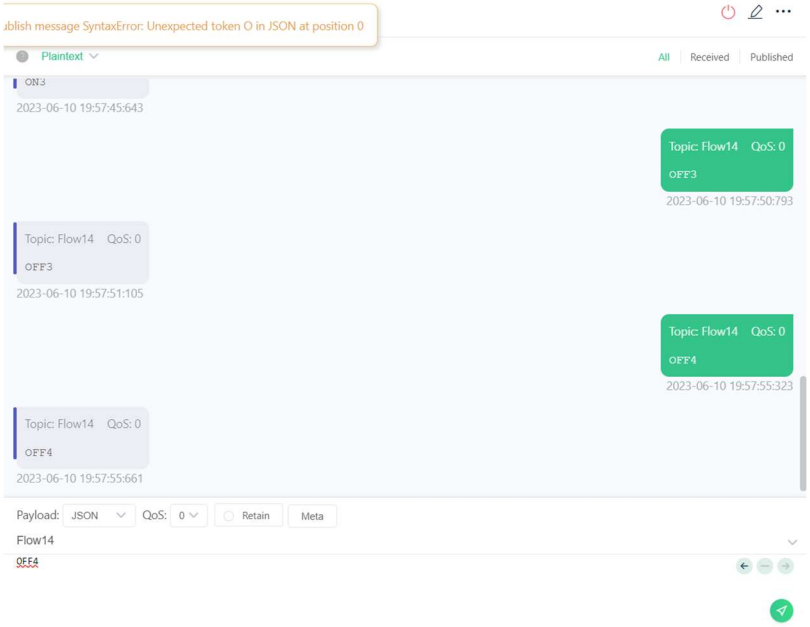
```
    "autoConnect": true,
    "usetls": false,
    "protocolVersion": "4",
    "keepalive": "60",
    "cleansession": true,
    "birthTopic": "",
    "birthQos": "0",
    "birthPayload": "",
    "birthMsg": {},
    "closeTopic": "",
    "closeQos": "0",
    "closePayload": "",
    "closeMsg": {},
    "willTopic": "",
    "willQos": "0",
    "willPayload": "",
    "willMsg": {},
    "userProps": "",
    "sessionExpiry": ""
  }
]
```

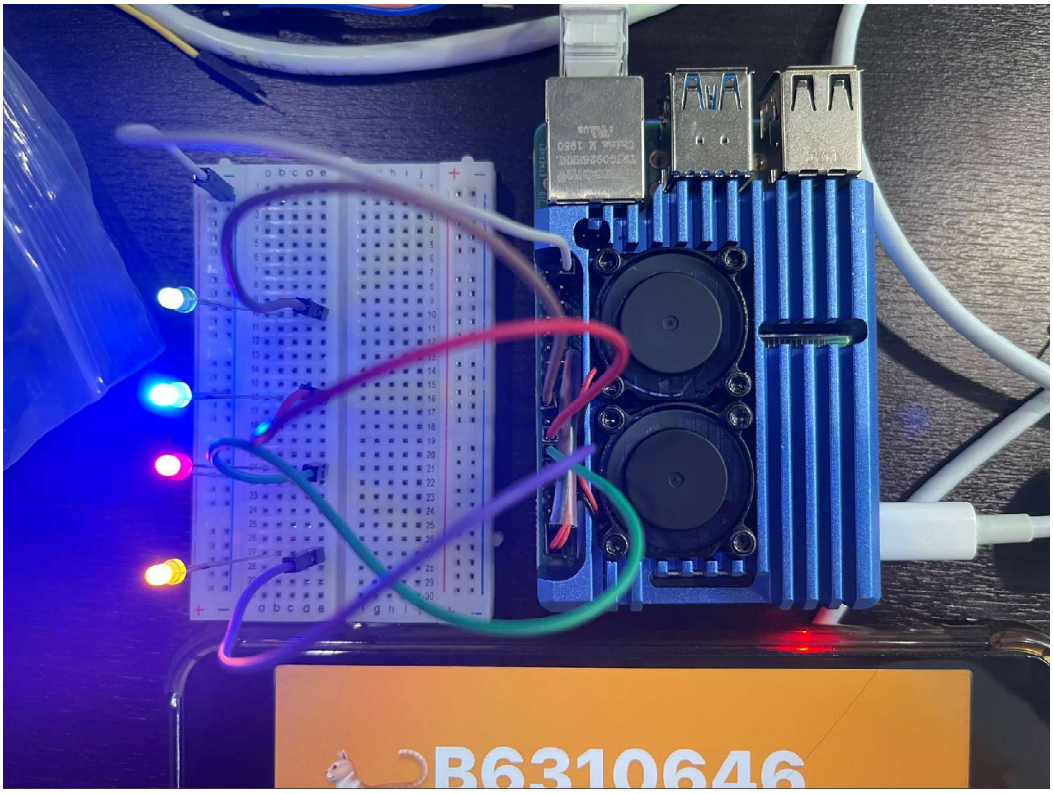

รูปถ่ายหน้า **Web Broswer**


Flow14
connected
LED1
LED2
LED3
LED4
PIN: 12
OK
PIN: 16
OK
PIN: 18
false
PIN: 22
false
timestamp
Tempp
Flow14
connected


Edit mqtt in node > Edit mqtt-broker node
Delete
Cancel
Update
Properties
Name
Name
Connection
Security
Messages
Server
192.168.1.49
Port
1883
Connect automatically
Use TLS
Protocol
MQTT V3.1.1
Client ID
Leave blank for auto generated
Keep Alive
60
Session
Use clean session
Enabled
1 node uses this config
On all flows


Plaintext
All
Received
Published
Random Temperature = 92
2023-06-10 19:55:43:665
Topic: Flow14 QoS: 0
Random Temperature = 61
2023-06-10 19:55:43:969
Topic: Flow14 QoS: 0
Random Temperature = 92
2023-06-10 19:55:44:276
Topic: Flow14 QoS: 0
Random Temperature = 52
2023-06-10 19:55:44:276
Topic: Flow14 QoS: 0
Random Temperature = 11
2023-06-10 19:55:44:583
Payload: JSON QoS: 0 Retain Meta
Flow14
ON3


ublish message SyntaxError: Unexpected token O in JSON at position 0
Plaintext
All
Received
Published
ON3
2023-06-10 19:57:45:643
Topic: Flow14 QoS: 0
OFF3
2023-06-10 19:57:50:793
Topic: Flow14 QoS: 0
OFF3
2023-06-10 19:57:51:105
Topic: Flow14 QoS: 0
OFF4
2023-06-10 19:57:55:323
Topic: Flow14 QoS: 0
OFF4
2023-06-10 19:57:55:661
Payload: JSON QoS: 0 Retain Meta
Flow14
OFF4

รูปการทดสอบ 1

รูปการทดสอบ 2