**Project 12,13,14**

**1.Read TST300 V2 temperature and humidity sensor data read using Modbus Master simulation:**

**1.Read Temperature sensor data:**

* **At beginning we must identify which port we will use in our laptop. Then, we need to go in my devices application server to figure out this.**
* **Download Modbus master simulation below links,**
* **For reading data from devices, at first, we must setup device settings by simulation.**
* **Device ID:1, Holding resister, Address-100, Length-2**

**2.Humedity sensor data read:**

* **Setup device settings**
* **Device ID:3, Holding resister, Address-102, Length-2**

**3.Read data from meter:**

* **Setup device settings:**
* **Device ID:2, Input Resister, Address-0, Length-1**
* **Modbus RTU setting:**
* **Port- COM5**
* **Bitrate-19200**
* **Parity-Even**
* **Stop Bit-1**

**4.Those data send to Node-red: Temperature sensor:**

* **Temperature sensor data send to node red,**

**Create a flow chart,**

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**5.Meter data read by node-red:**

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* **Set function node:**
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**5.Those data send to Node-red: Humidity sensor:**

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**6.Simens IOT2040 Connection:**

* Open the IoT2040 then remove memory card.
* Flash the memory by SD card format.
* Download the image from SIEMENSE web site, for this we need to login on this site.
* After that that image send our memory using BalenaEatcher application.
* Now set everything.
* Then we connect IoT2040 by putty by it default IP-192.168.200.1 and login-root, default pass-passwd.
* Type (iot2000setup) for entry the device.
* Both computer IP and device IP will be same otherwise putty will not be able for connect.
* Then enter the software to active Node-red. If IoT connected with our Computer, then we can use default IP-192.168.200.1 for login Node-red. If we don’t change it.
* If our IoT connect with our router by port-eth1, then it will take a different IP. That time we must use different IP for login Node-red.
* For this we can login our router then search (sub mask number) which provide Simians on this device.

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[**Connect a Siemens SIMATIC IOT2000 to Ubidots over MQTT using NodeRED:**](https://help.ubidots.com/en/articles/1410250-connect-a-siemens-simatic-iot2000-to-ubidots-over-mqtt-using-nodered)

## [**Using Ubidots' MQTT nodes:**](https://help.ubidots.com/en/articles/1440402-connect-node-red-with-ubidots)

**7.After login Node-red:**

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