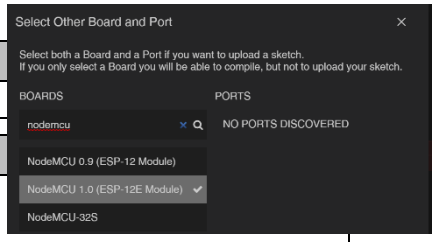
Main Topic: **IOT Installation** – nodeMCU

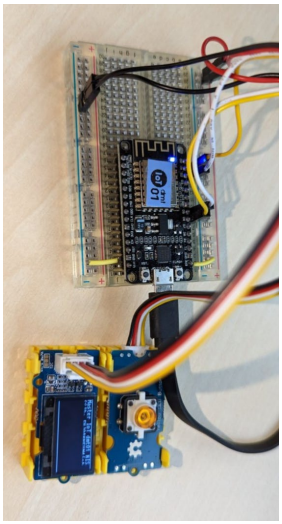
Keywords: nodeMCU, MQTT, Arduino IDE, etc.

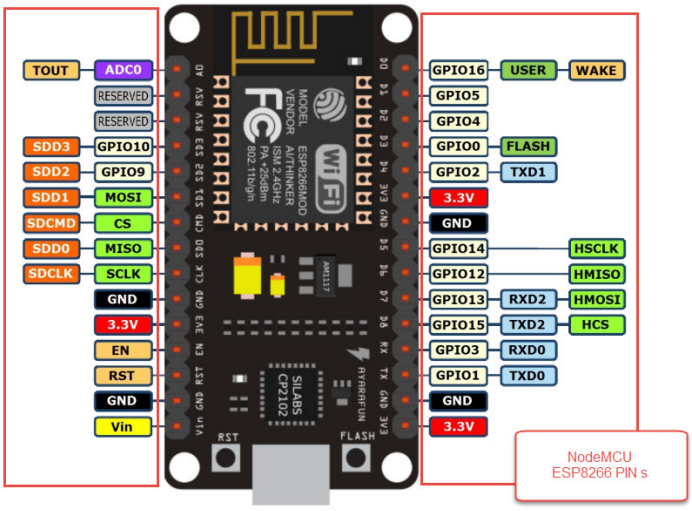


Lernziele
IOT Grundsystem aufbauen, installieren und testen

Steps	Lernschritte und Infos
1	IOT HW Aufbauen (siehe Grafik und LV) nodeMCU Input: Button, Output: OLED & Led; USB Strom/Dev
2	Arduino Installation: https://www.arduino.cc/en/software/
3	USB Driver **CP210X** Driver (wenn nötig) → check unter Gerätemanager https://www.silabs.com/developers/usb-to-uart-bridge-vcp-drivers?tab=downloads
4	Arduino IDE Konfigurieren: Preferences → **Boardmanager** http://arduino.esp8266.com/stable/package_esp8266com_index.json https://dl.espressif.com/dl/package_esp32_index.json
5	Libraries installieren: **#include** C:\Users\xxx\OneDrive\Dokumente\Arduino**libraries** <Wire.h>, <U8g2lib.h>, <ESP8266WiFi.h>, <ESP8266WiFiMulti.h>, <PubSubClient.h>
6	IOT Basiscode installieren (siehe Projektordner) and github https://github.com/nischelwitzer/IOT-Master

HW	Hardwareaufbau: nodeMCU





00_master_screen_v31.ino | mqtt_secrets.h | wlan_secrets.h

Info	Code Configuration

	`wlan_secrets.h → Wlan SSIDs (WifiMulti)`
	`mqtt_secrets.h → MQTT Broker (z.B. dmt.fh-joanneu.at)`
	`00_master_screen_v31.ino → MQTT Topcis`
	`const char* MQTT_TOPIC_PUB_INFO = "dmtXX/info";`

Info	eps01-S	nodeMCU esp8266
	`Board: Generic esp8266`	`Board: nodeMCU 1.0`
	`Pins: 1, 2, 3`	`Pins: D1, D2, D3`

L	Links: Sensorinfos, Grove Seeedstudio
	https://www.seeedstudio.com/ https://wiki.seeedstudio.com/Grove_System/ MQTT Dash: MQTT Dash (Android) nodeRED: https://nodered.org/docs/getting-started/windows MQTT Client: z.B. mqttFX