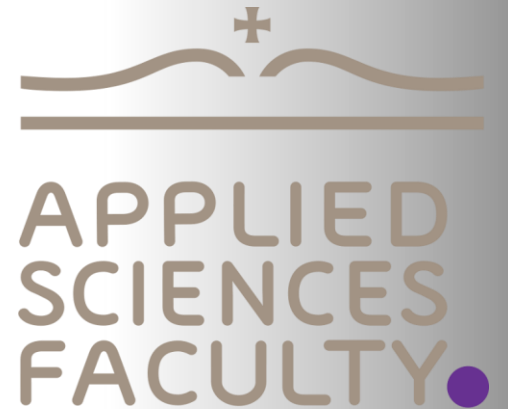


# EMBEDDED

л.15

Сучасні підходи

Палій Святослав



# Arduino

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Любити чи ненавидіти?

<вільна дискусія та обмін думками>



# Light and Versatile Graphics Library

LVGL is the most popular free and open-source embedded graphics library to create beautiful UIs for any MCU, MPU and display type.

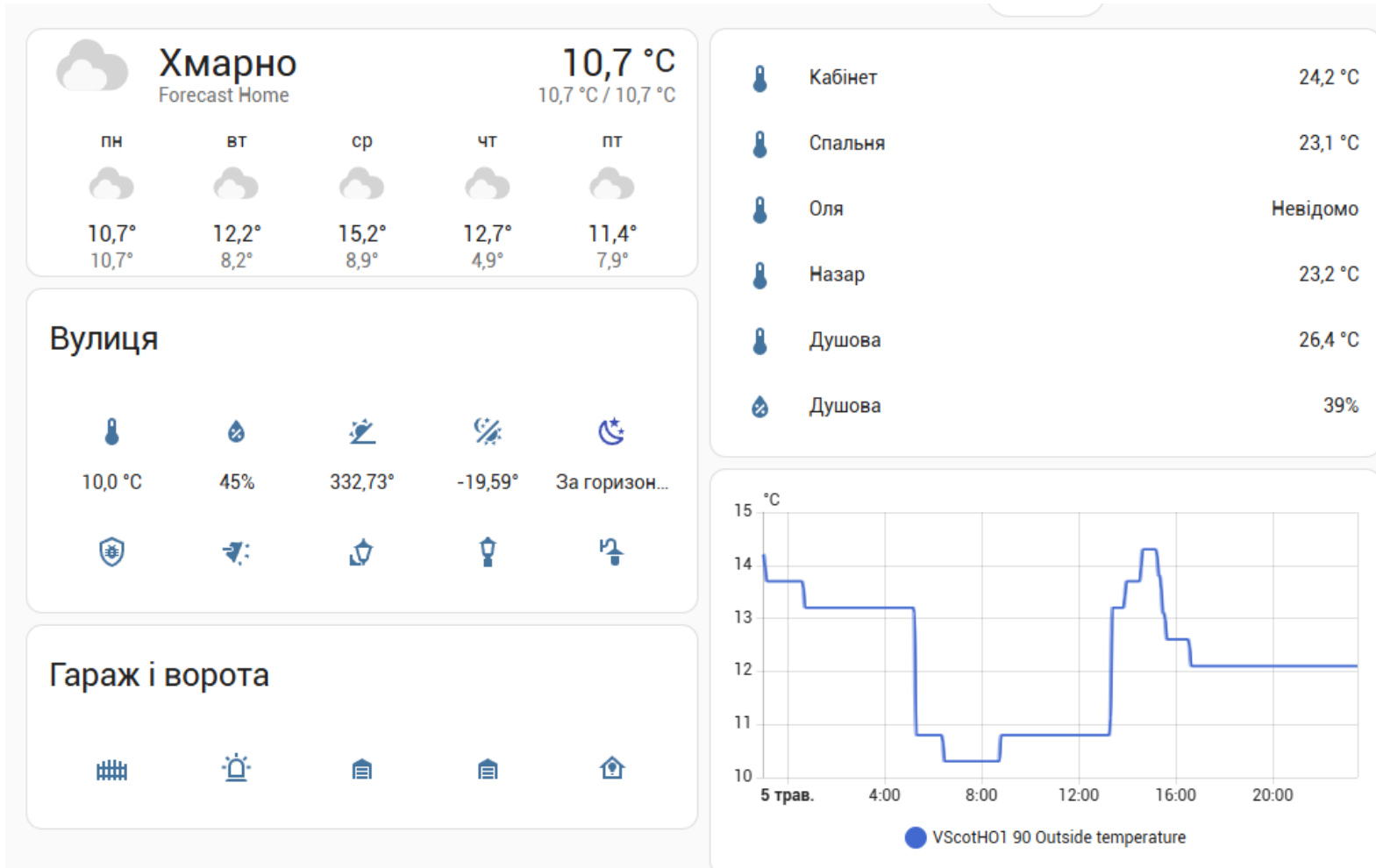
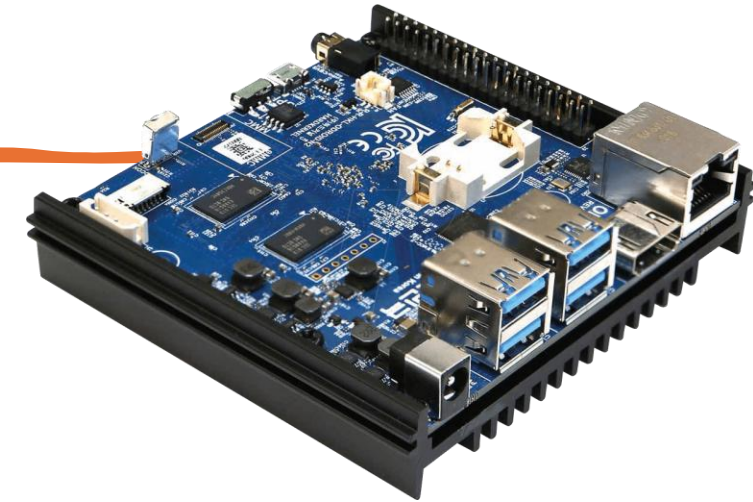
From consumer electronics to industrial automation, any application can leverage LVGL's 30+ built-in widgets, 100+ style properties, web-inspired layouts, and typography system supporting many languages.

Demos — LVGL  
<https://lvgl.io>

## Official partners



# Home Assistant (IoT)



Home Assistant  
<https://www.home-assistant.io>

# ESPHome

The screenshot displays the ESPHome web interface. On the left is a sidebar with the following navigation items: Home Assistant, Огляд, Мар, Енергія, Журнал, Історія, ESPHome Builder (highlighted in blue), and Медіа. The main header area includes the ESPHome logo and links for UPDATE ALL, SECRETS, and a search icon. The main content area features a grid of nine device cards:

Device Name	YAML File	Status	Actions
Басейн	pool.yaml	OFFLINE	UPDATE, VISIT, EDIT, LOGS
Вимикач в гаражі (лв)	switch-garage-l.yaml	ONLINE	VISIT, EDIT, LOGS
Вимикач в гаражі (пр)	switch-garage-r.yaml	ONLINE	VISIT, EDIT, LOGS
Вимикач в кабінеті	switch-cabinet.yaml	ONLINE	VISIT, EDIT, LOGS
Вимикач в Олі	switch-olya.yaml	ONLINE	VISIT, EDIT, LOGS
Ворота	vorota.yaml	ONLINE	VISIT, EDIT, LOGS
Контролер води	water-supply.yaml	OFFLINE	UPDATE, VISIT, EDIT, LOGS
Лампа від комарів	moskito-lamp.yaml	ONLINE	VISIT, EDIT, LOGS
Підсвітка сходів	stairs-relay.yaml	ONLINE	UPDATE, VISIT, EDIT, LOGS

```
esphome:
  name: moskito-lamp
  friendly_name: "Лампа від комарів"

esp8266:
  board: sonoff_basic

# Enable logging
logger:

# Enable Home Assistant API
api:
  encryption:
    key: !secret encryption_key

ota:
  platform: esphome
  password: !secret ota_password

wifi:
  ssid: !secret wifi_ssid
  password: !secret wifi_password

  # Enable fallback hotspot (captive
  portal) in case wifi connection fails
  ap:
    ssid: "Moskito Lamp Rcvry"
    password: !secret recovery_password

switch:
  - platform: gpio
    name: "Лампа"
    icon: "mdi:shield-bug-outline"
    pin: GPIO12
    id: relay

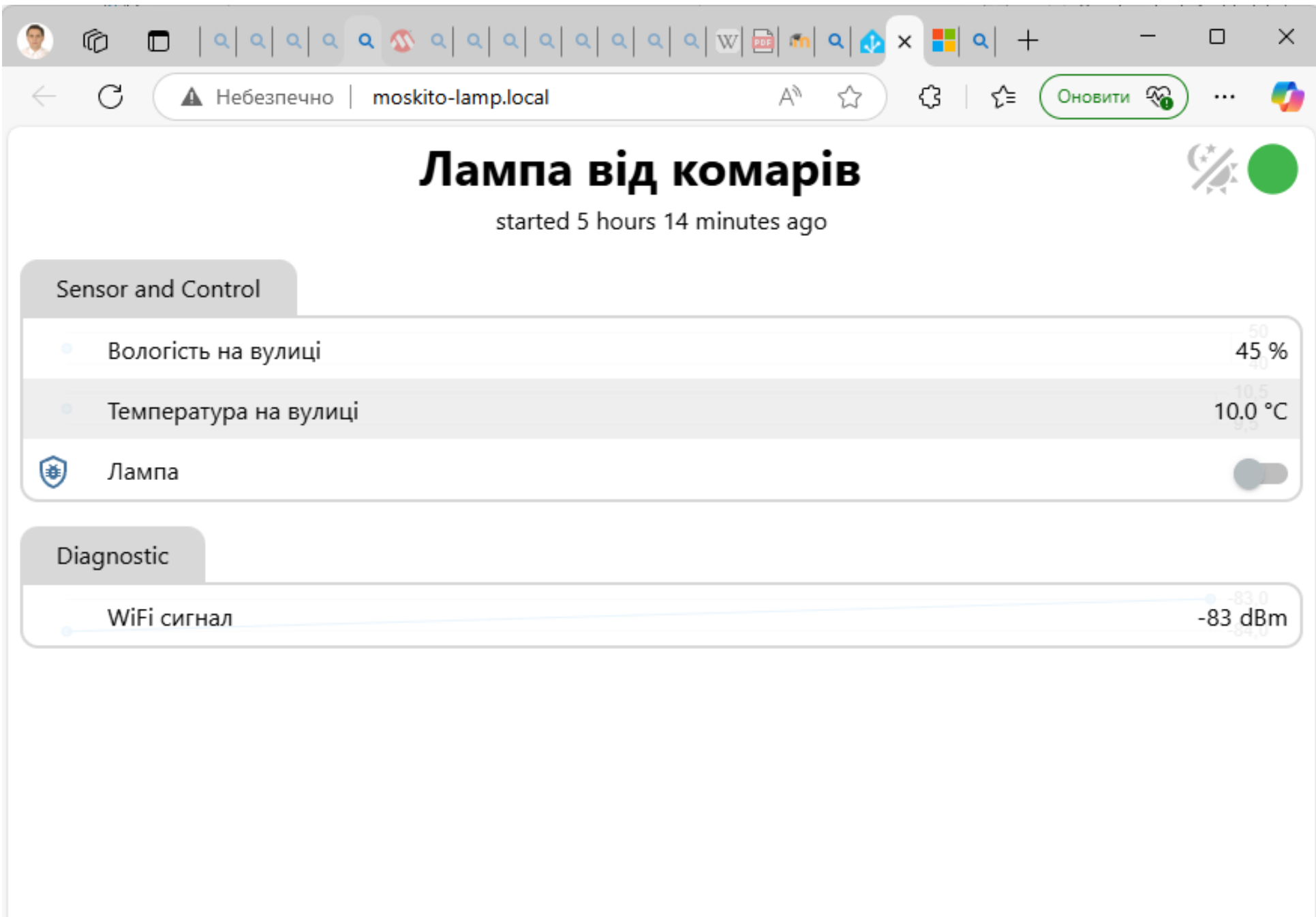
status_led:
  pin:
    number: GPIO13
    inverted: yes

sensor:
  - platform: dht
    pin: GPIO02
    model: DHT11
    temperature:
      id : outdoor_temperature
      name: "Температура на вулиці"
    humidity:
      id : outdoor_humidity
      name: "Вологість на вулиці"
    update_interval: 300s

sun:
  latitude: 49.7964484779385°
  longitude: 23.82801776282612°
  on_sunrise:
    - then:
      - switch.turn_off: relay
  on_sunset:
    - then:
      - switch.turn_on: relay

time:
  - platform: homeassistant
    id: homeassistant_time
    on_time_sync:
      then:
        - if:
            condition:
              - sun.is_above_horizon:
            then:
              - switch.turn_off: relay
            else:
              - switch.turn_on: relay

web_server:
  port: 80
  version: 3
  # local: true
  log: False
  ota: False
```



# Visuino



# ChatGPT & Friends

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Щиро дякую!

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