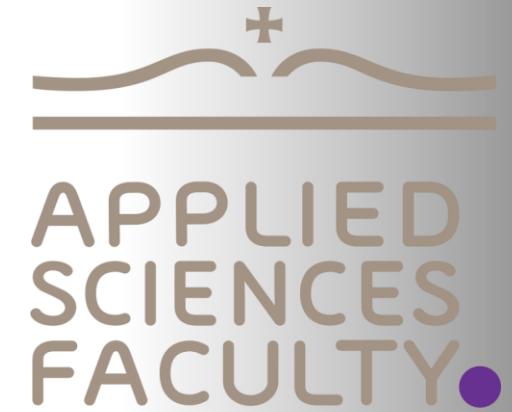


# EMBEDDED

л.15

Сучасні підходи

Палій Святослав



# Arduino

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Любити чи ненавидіти?

<вільна дискусія та обмін думками>



# Light and Versatile Graphics Library

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

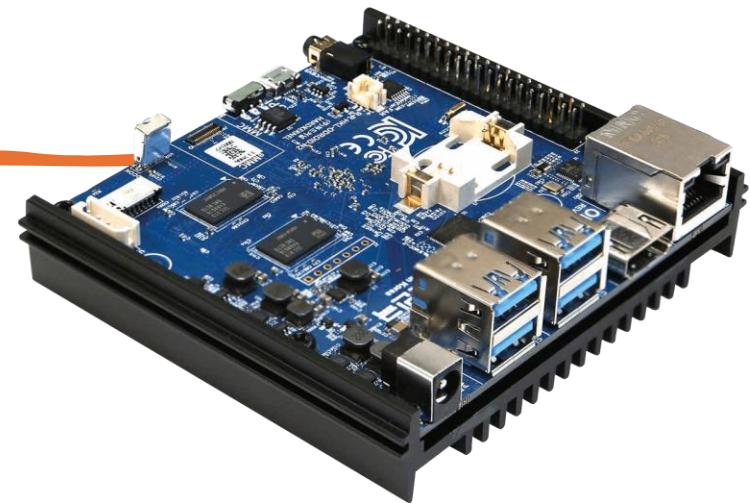
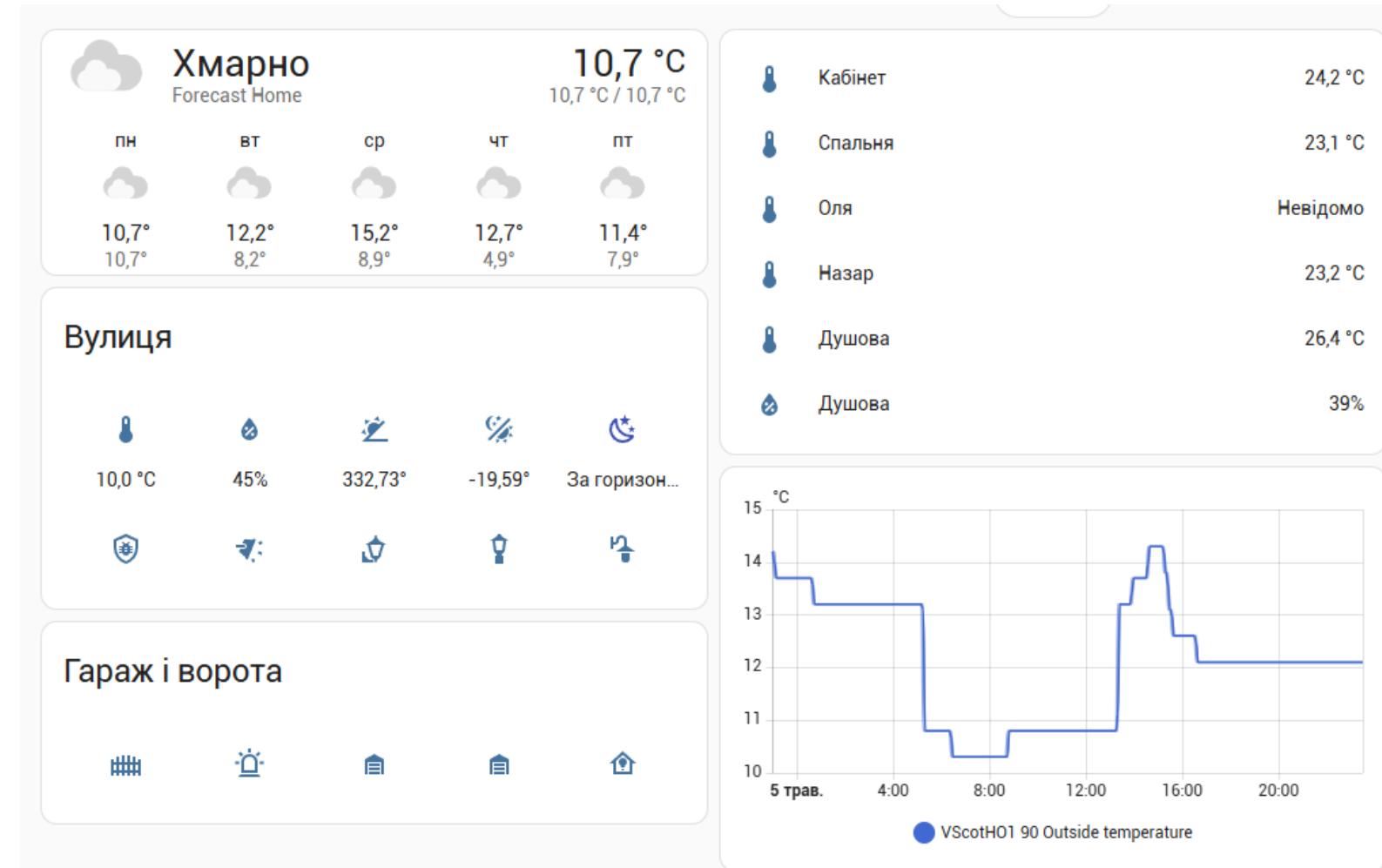
From consumer electronics to industrial automation, any application can leverage LVGL's 30+ built-in widgets, 100+ style properties, web-inspired layouts, and typography system supporting many languages.

Demos — LVGL  
<https://lvgl.io>

## Official partners



# Home Assistant (IOT)



[Home Assistant](https://www.home-assistant.io)  
<https://www.home-assistant.io>

# ESPHome

The screenshot shows the Home Assistant interface with the ESPHome integration selected. The sidebar on the left includes links for Overview, Map, Energy, Journal, History, and ESPHome Builder (which is currently active). The main area displays nine ESPHome components:

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

Небезпечно | moskito-lamp.local

Лампа від комарів

started 5 hours 14 minutes ago

Sensor and Control

- Вологість на вулиці 45 %
- Температура на вулиці 10.0 °C
- Лампа

Diagnostic

- WiFi сигнал -83 dBm

# Visuino



# ChatGPT & Friends



Щиро дякую!

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