

# Sat Cuve à eau

## Objectif

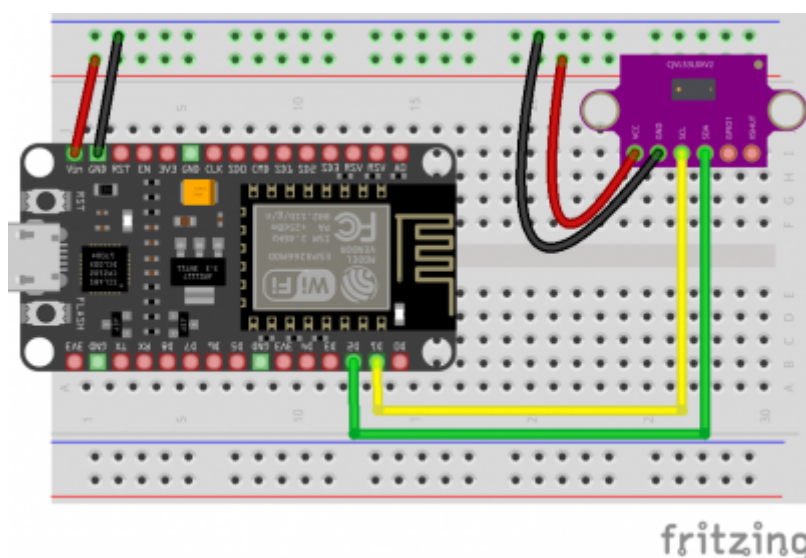
Mesure la quantité d'eau disponible dans des citernes à eau.

Moyen : on utilise un capteur laser pour mesurer la distance entre le sommet de l'eau et le capteur de façon à extrapoler la hauteur de la colonne d'eau et en déduire le volume total disponible

## Montage



Attention à la polarité ! (+/-)



Suivre le schéma de montage en respectant les conventions de couleur pour les fils.

## Documentation technique

La documentation technique complète est disponible :

- en ligne : [sat-cuve](#)
- en téléchargement (PDF) :  
<https://www.alldatasheet.com/datasheet-pdf/download/948120/STMICROELECTRONICS/VL53L0X.html>

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# Code

## Code basique

[GYVL53L0XV2simple.yaml](#)

```
esphome:
  name: citerne
  friendly_name: Citerne

esp8266:
  board: esp01_1m

# Enable logging
logger:

# Enable Home Assistant API
api:
  encryption:
    key: "jKAUk7eaGd1hf4V1y9LIXGxA9nLUavgWrY2jFNmTQQ0="

ota:
  - platform: esphome
    password: "57e167ac1e278fd9f20970f9690f9ede"

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

  # Enable fallback hotspot (captive portal) in case wifi connection
  fails
  ap:
    ssid: "Citerne Fallback Hotspot"
    password: "s6xKWSkMR6XG"

captive_portal:
# Activer le support i2c
i2c:
  sda: GPIO4      #D2  # à adapter selon ton câblage
  scl: GPIO5      #D1
  scan: true

# Capteur VL53L0X
sensor:
  - platform: vl53l0x
    name: "Distance Laser"
    update_interval: 60s
```

```
long_range: false
timeout: 200ms
```

## Code avancé

### GYVL53L0XV2adv.yaml

```
substitutions:
  devicename: citerne
  friendly_devicename: Citerne

esphome:
  name: ${devicename}
  friendly_name: ${friendly_devicename}

esp8266:
  board: esp01_1m

# Enable logging
logger:

# Enable Home Assistant API
api:
  encryption:
    key: "jKAUk7eaGd1hf4V1y9LIXGxA9nLUavgWrY2jFNmTQQ0="

ota:
  - platform: esphome
    password: "57e167ac1e278fd9f20970f9690f9ede"

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

# Enable fallback hotspot (captive portal) in case wifi connection
fails
ap:
  ssid: "${devicename} Fallback Hotspot"
  password: "s6xKWSkMR6XG"

captive_portal:
# Activer le support i2c
i2c:
  sda: GPIO4      #D2  # à adapter selon ton câblage
  scl: GPIO5      #D1
  scan: true

# Capteur VL53L0X
```

```
sensor:
- platform: vl53l0x
  name: "Distance Laser"
  update_interval: 60s
  long_range: false
  timeout: 200ms

- platform: wifi_signal
  name: "signal WiFi ({devicename})"
  update_interval: 60s

- platform: uptime
  name: "{devicename} Uptime Sensor"
  id: {devicename}_uptime_sensor
  update_interval: 60s
  on_raw_value:
    then:
      - text_sensor.template.publish:
          id: {devicename}_uptime_human
          state: !lambda |-
            int seconds =
round(id({devicename}_uptime_sensor).raw_state);
            int days = seconds / (24 * 3600);
            seconds = seconds % (24 * 3600);
            int hours = seconds / 3600;
            seconds = seconds % 3600;
            int minutes = seconds / 60;
            seconds = seconds % 60;
            return (
              (days ? String(days) + "j " : "") +
              (hours ? String(hours) + "h " : "") +
              (minutes ? String(minutes) + "m " : "") +
              (String(seconds) + "s")
            ).c_str();

text_sensor:
- platform: wifi_info
  ip_address:
    name: "adresse IP ({devicename})"
    id: {devicename}_ip_address

- platform: template
  name: "Uptime ({devicename})"
  id: {devicename}_uptime_human
  icon: mdi:clock-start

- platform: version
  name: "Version d'ESPHome installée"
  id: {devicename}_ESPHome_Version
```

# Intégration Home Assistant

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