

Greenhouse monitoring system

The program consists of an API for managing the internal environment of a small greenhouse.

The following components are present:

- Temperature sensor.
- Soil moisture sensor.
- Photoresistor.
- LED.
- Sprinkler system.

The system is equipped with a communication channel based on GPIO pins with which it reads information from the sensors and triggers the actuators.

- The system must ensure that the measurements read from the sensor are contained in a specific range, i.e., 0% to 100% for the soil moisture sensor (see the comments for more details).
- Whenever the detected soil moisture sensor for the plant is below a threshold of 50%, the system triggers its sprinkler.
- If the light level measured is too high, the system turns on an LED to notify the user.

See the comments in the program for further details.