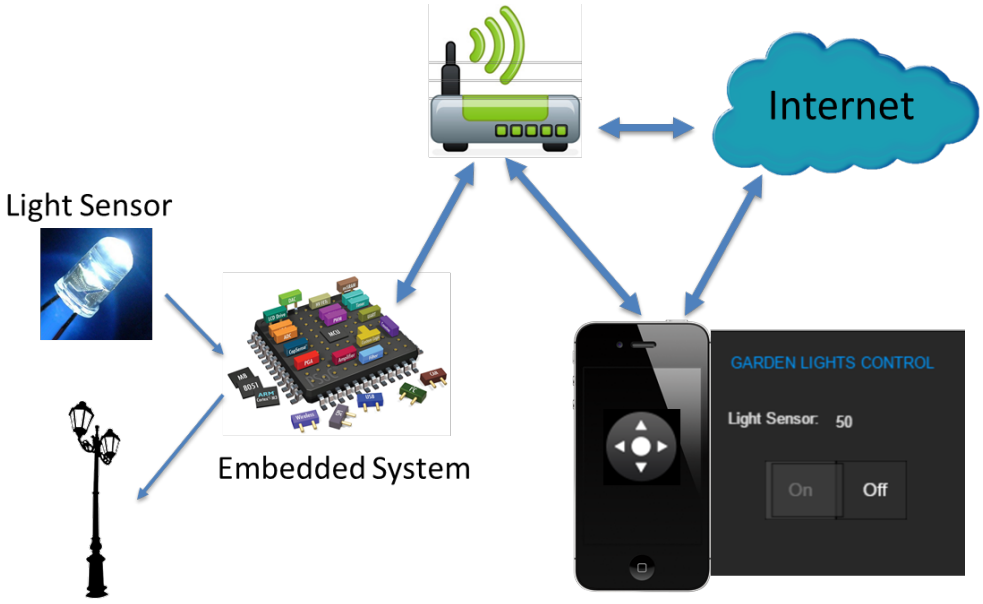
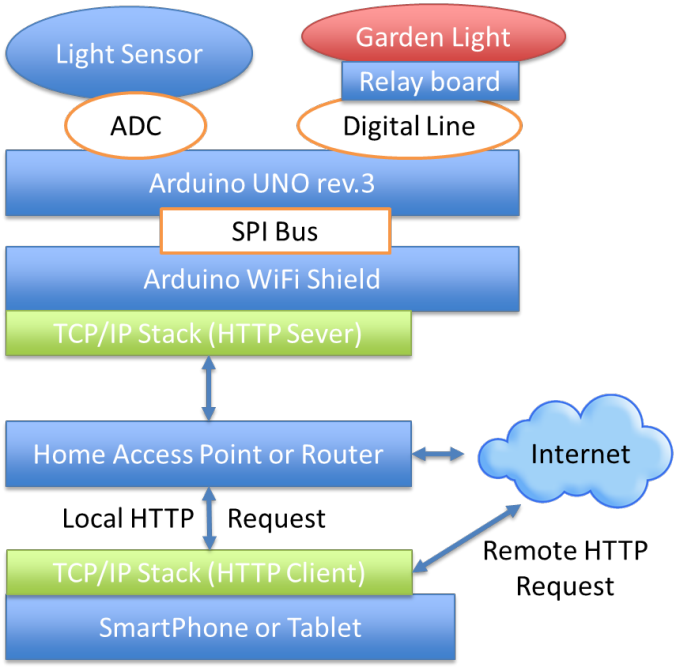
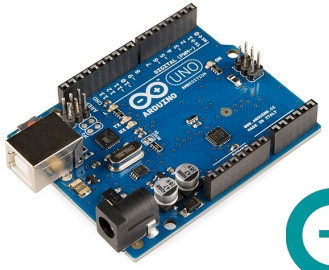
2 CONTROLLING DEVICES WITH NETIO APP





- The embedded system can be connected with sensors and/or actuators.
- The smart mobile device can be locally or remotely connected with the system.
- The acquired information is received by the smart mobile device.
- The smart mobile device is capable of controlling the actuators.

Hardware modules



Arduino UNO rev.3

Arduino WiFi Shield

Light-Dependent Resistor (LDR)

Relay board and sockets

CONTROLLING DEVICES WITH NETIO APP

HOW TO

1. Download the Arduino IDE.
2. Connect all the hardware modules together.
3. Login to NetIO and open the Design Editor.
4. Design the App interface and configure the *reads* and the *sends* attributes.
5. Download, compile and upload the example sketch for Arduino.
6. Configure the NAT/port forwarding in the router if remote access is needed.
7. Download the App, synchronize with the server and obtain the created interface with the Design Editor.
8. Verify that the App is properly working by using the Arduino Terminal at the same time.

commercial example

Edimax Smart Plug Switch connect people to their homes, and the things they use every day. Designed to make homes more dynamic, functional and work better for modern lifestyles, Smart Plug products give users intelligent control over all of their home electronics. The Smart Plug Switch plugs into any wall socket of your home.

EXTENSIONS

- Additional sensors and/or actuators can be connected to the same device.
- The Arduino WiFi Shield can be easily replaced by the Arduino Ethernet Shield or any other hardware device that allows the system to be locally or remotely connected.
- The interface can be easily changed and improved by including new items (buttons, sliders, etc.).

Security

A VPN connection or HTTP requests are required when using the App from outside your local network.
No security is implemented on HTTP/UDP/TCP connections.

Scalability

Many devices can be controlled by using the same App, designed with the NetIO Design Editor.
Such devices could be distributed in different locations since several sockets can be opened.

Portability

NetIO can connect to every TCP/UDP or HTTP server.
Examples over Arduino, Raspberry Pi and generics servers based on Java and Python language are provided.