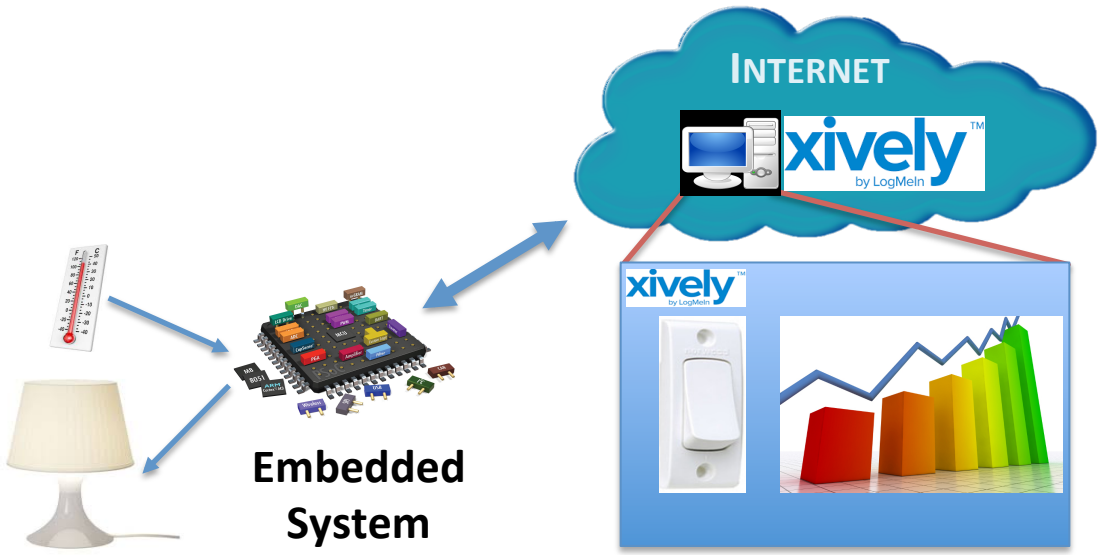
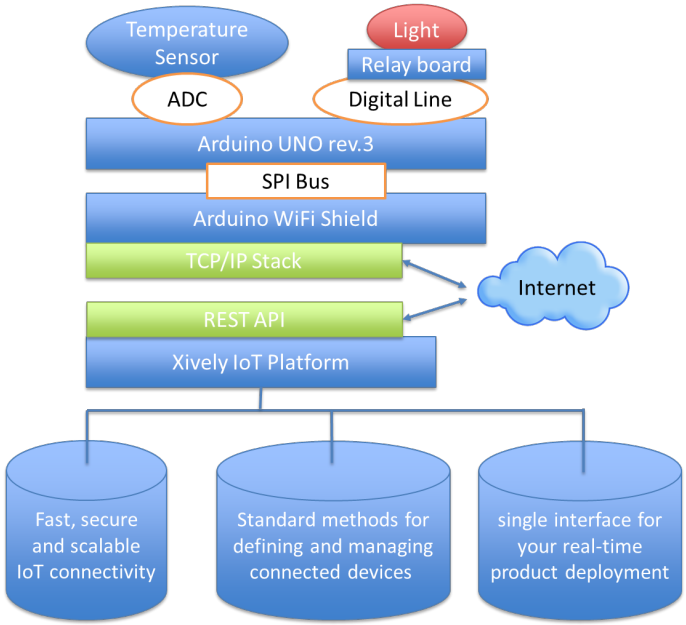
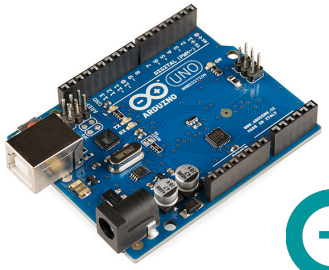
1 DEVICE SENDING/RECEIVING DATA TO XIVELY





- The embedded system can be connected with sensors and/or actuators.
- The sensors data are stored in the Xively IoT platform.
- The actuators can be controlled by using the Xively dashboard that allows the data to be graphically represented.

Hardware modules



Arduino UNO rev.3

Arduino WiFi Shield

LM35 Temperature Sensor

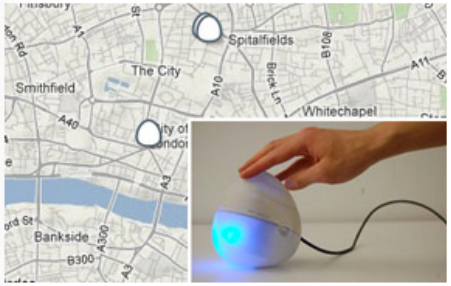
Relay board and sockets

A DEVICE SENDING DATA TO XIVELY

HOW TO

1. Download the Arduino IDE.
2. Install Xively and the HttpClient libraries.
3. Connect the hardware module to Arduino.
4. Login to Xively and register a new device.
5. Copy the API_KEY and the FEED_ID to the clipboard.
6. Download the example sketch for Arduino.
7. Change the SSID, the Password, the API_KEY and the FEE_ID in the source code.
8. Compile and upload the example.
9. Debug the program by using the Arduino Terminal.
10. Verify the data storage in Xively.
11. Switch on/off the light from Xively.

commercial example



MONITOR POLLUTION LEVELS

The Air Quality Egg is a community-led air quality sensing system designed to allow anyone to collect high resolution readings of NO2 and CO concentrations outside of their home using an RF transmitter and ethernet driven base station. The data can then be shared to create a network of readings to be used by the community and general public. // Visit

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.
- The devices can be easily deployed in the Xively platform to make them available to clients.

Security

Uploading data to Xively is only allowed if the API_KEY and the FEED_ID are known.
The actuators status can be changed only if the user's login and password are verified.

Scalability

Any number of desired devices can be included in Xively following the same procedure. Then, many sensory data can be stored and many actuators can be controlled by using Xively.

Portability

Xively is available for many platforms since libraries for Arduino, Android, ARM mbed, C, Electric Imp, Java, JavaScript, Objective-C, PHP, Python and Ruby are available.