Sistemas de Computação Móvel e Ubíqua (2017/18)

Lists of requirements for the project

Concerning the system as a whole:

1. One of:
    a. The architecture must comprise a 1 to N relationship between the mobile client(s) and the server(s) running in the controller (Arduino or other)
        i. It may be a 1 client to N servers or a N clients to 1 server relationship. Naturally N to M relationships are also allowed, and even valued.
    b. The mobile device presents different behaviors whether it is on the same network of the server or not, e.g. on a smart house, option "turn music on" is only available when the device is connected to the house's network.

2. Remote communication between the mobile device(s) and the controller, preferably using WiFi.

Concerning the mobile application:

1. Carefully designed graphical interface.
2. Associate meaningful behavior(s) to
    a. the values read from a sensor available in the device (e.g. GPS, accelerometer)
    b. or to the detection if the device is connected to a WiFi access point, including a particular access point.

Concerning the Arduino controller:

1. Use two different types of sensors.
2. Use two different types of actuators.
3. Support automatic actions, consequence of the pre-association of behaviors to particular values read from the sensors, e.g. turn on the light when luminosity is lower than a user-defined value.
4. Support on-demand commands, given by the user from his mobile device, e.g. turn off the light (now).