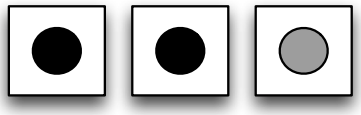
Universidade Fernando Pessoa

Hardware and Sensors

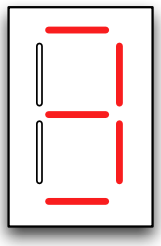
Elevator

1. Create a project, which will enable you to reproduce the behavior of an elevator using several push button for each floor, a seven segment led to reflect the current floor; and a DC motor to control the elevator displacement. Consider that:
    a. the elevator has three floor, use three push button;
    b. the seven segment will display the 1, 2 or 3 regarding the current floor;
    c. connect the DC motor using an **H-bridge**.

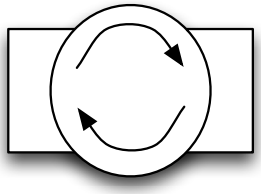
For instance, if you are in the first floor, when the third floor is pressed the DC motor will start rotating on the push up direction and the display will consecutively reveal 1, 2 and 3. When the third floor is reached the motor stop and wait for next input



Push button



Seven Segment Led



DC Motor

1. Submit your code and designed circuit(s) using Fritzing[1] into the eLearning Hardware and Sensor dropbox.

[1] http://fritzing.org/download