Malaga University
Electronic Technology Department

ETS Telecommunications Engineering

Bachelor's Degree in Telecommunications Systems Engineering

microcontrollers

Course 2022/2023

Practice 2: I/O ports

(v1)

1. DESCRIPTION

Practice **2** of the subject presents the basic concepts of the **I/O Ports** of the microcontroller. It will be developed on the *LaunchPad* and BBP boards, using the 4 Sx buttons and the 4 LEDx of the same (x = 3..6). It must be taken into account that several buttons will never be pressed simultaneously, so it is not necessary to manage this situation.

IMPORTANT NOTE: In order to develop this practice, it is necessary that the first instruction that is executed in the "main" function of the program is:

WDTCTL = (WDTPW|WDTHOLD); **// Stop the watchdog**

To implement this practice, the modules described below must be developed.

p2.1

Description:

During the time that the Sx button remains pressed, the LEDx will remain on.

Considerations:

• The management of the buttons will be carried out by polling.

p2.2

Description:

When the Sx pushbutton is pressed, the LEDx will toggle.

Considerations:

• The management of the buttons will be carried out by polling.