ENGINE

Teaching online electronics, microcontrollers and programming in Higher Education

Output 2: Online Course for Microcontrollers: syllabus, open educational resources

Open project leaflet: Module_2-7 Push Button

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Erasmus+

GRANT NUMBER: 2020-1-PL01-KA226-HE-095653

Declaration

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Funding Disclaimer

This project has been funded with support from the European Commission. This report reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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Executive summary

This file contains open project.

Chapter 1: **Open project 1**

Draw a circuit in the Proteus Design Suite and write a suitable program that the PIC18F4550 function as a simple parking lot. Specifically, in a parking lot with a maximum capacity of 40 vehicles, there should be 2 push buttons, one to increase the vehicle counter, while the second to decrease it. The indication of the capacity should be shown on 5 LEDs in the following way:

No vehicle => All LEDs off

1 ~ 9 vehicles => 1st LED lights up

10 ~ 19 vehicles => the 2nd LED also lights up

20 ~ 29 vehicles => the 3rd LED also lights up

30 ~ 39 vehicles => the 4th LED also lights up

Full capacity => all 5 LEDs flash with a period of 600ms

Tip. The implementation of the code should be done by using a function, one for each push button