

ENGINE

Teaching online electronics, microcontrollers and programming in Higher Education

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

Open project leaflet: Module_1-1 pins as outputs

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Declaration

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Executive summary

This file contains open projects.

Chapter 1: Open project 1

Design a circuit and write the appropriate code so that the Arduino Uno works as a pedestrian traffic light. More specifically perform the functions:

1. a red LED lights up for 25 seconds
2. turns off the red and lights a green LED for 8 seconds
3. while the green LED is on, an audible alarm is activated (for pedestrians to pass)
4. repeat the above - return to 1

Tip. An RGB LED could be used

Chapter 2: **Open project 2**

Design a circuit and write the appropriate code so that the Arduino Uno works as a countdown second. In more detail, count in repetition from 9 to 0 and display the numbers in a common anode seven segment display.

Tip. Pay attention to the connections of the seven-segment display

