ENGINE

Teaching online electronics, microcontrollers and programming in Higher Education

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

Open project leaflet: Module_2-6 Communication - ADC

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Declaration

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Executive summary

This file contains open projects.

Chapter 1: **Open project 1**

Draw a circuit in the Proteus Design Suite and write a suitable program that the PIC18F4550 functions as an up/down-counter that counts from 0 to 10 (or from 10 to 0) and send the numbers in serial communication. The numbers are changed every 1s. The commands are:

- "s" = start
- "p" = pause
- "r" = reset
- "c" = continue
- "U" = up-counter
- "D" = down-counter

Starting the system by default will be a down-counter

Tip. *Try to measure time without using "delay_ms()"*

Chapter 2: **Open project 2**

Draw a circuit in the Proteus Design Suite and write a suitable program that the PIC18F4550 functions as a thermometer with 2 sensors TMP36. In more detail, a liquid crystal display will display the average temperatures of the two sensors.