Syllabus

Purpose with the course

The aim of the course is that the participants should have acquired a basic knowledge of the microcontroller Arduino UNO R3 and how it can be applied in various technical projects, without any previous experience in programming or electronics.
Participants should be able to:

- Install and configure the Arduino IDE programming environment
- Use tools available in Arduino IDE.
- Write their own basic programs in Arduino IDE.
- Connect and upload code to a microcontroller.
- Identify the different types of PINs on the card.
- Read and write analog signals
- Read and write digital signals
- Complete the course exercises.

Course implementation.

Arduino UNO R3 is a well-known microcontroller used in a countless number of hobby projects. It is a well-equipped microcontroller that can be used to control servo motors, read signals from different sensors, control systems and send and receive information.

The course consists of 3 steps. The first step is a review of the programming environment, the code used and the various parts of the card. The other is the design of a simple circuit there to be supplemented with code. The last step completing the course exercises where the task are to construct more advanced circuits and writing code by combining various built in functions.