ROBOSTEM Project

Agreement no: 2019-1-RO01-KA202-063965

Erasmus+

Lesson Plan - Physics

Topic/Subject: Blinking LED

Target Group: 9th grade students

Objectives:

Obj1. Raising student motivation and awareness through usage of modern technology
Obj2. Stimulating cognitive curiosity
Obj3. Developing microcontroller programming skills
Obj4. Learning about connecting LED to Arduino

Approach/Methodology used:

Lecture, explication, presentation, demonstration. Students learn about simple Arduino commands by connecting an LED light to Arduino by themselves.

Means/Tools/Educational technology

1 × Breadboard
1 × Arduino Uno R3
1 × LED
1 × 330Ω Resistor
2 × Jumper wires

Plan for work

Time	Activities	Methods/ means
5 minutes	Recall of the previous lesson	Lecture
5 minutes	Preparing and explaining all the tools needed	Explication/demonstration
20 minutes	Device construction	Explication/demonstration
15 minutes	Device programming	Explication/demonstration
10 minutes	Testing the functionality of the device	Presentation/demonstration

Assessment/Feedback:

The assessment is based on how active the students are during the presentation, how many questions they ask and how interested they are in this specific area of knowledge and how well they do during the programming and constructing the device.

Bibliography:

For a tutorial on how to construct this project, visit the link below:

https://www.tutorialspoint.com/arduino/arduino_blinking_led.htm