

## Lesson Plan “Introduction to Arduino”

**Topic:** Arduino and its components

**Subject:** ICT

**Target Group:**

VET students, aged between 12 - 15.

**Objectives:**

Obj1. To provide a basic understanding of Arduino

Obj2. To explain the Arduino composition, main outputs and inputs

Obj3. To recognize an Arduino board

Obj4. To install an Arduino platform: drivers and software

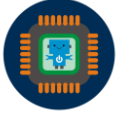
**Approach/Methodology used:** This lesson focuses on teaching VET students about the Arduino basics, components and boards. The teacher will use a PowerPoint presentation to lecture on the basics of Arduino, showing what it is, what are its benefits and how to install Arduino. Next, the students are involved in a problem-based learning activity where they put into practice what they have learnt.

**Means/Tools/Educational technology**

- A projector or interactive whiteboard and a computer with the software needed for running the PowerPoint presentation.
- Problem-based learning (PBL) template
- Arduino boards

**Plan for work**

Time	Activities	Methods/ means
10 min.	Use a PowerPoint presentation to introduce the basics of Arduino, to show what it is, what are its benefits, and how to install Arduino.	Lecture / Projector or interactive whiteboard
20 min.	Prepare the students for the problem-based activity. Form teams of 3-4 students, hand them the PBL template. Ask the teams to install Arduino. Supervise and support the teams while they are installing Arduino.	Collaborative work; Case study / Case study template
15 min.	Ask the teams to either present their results to the class or to another team.	Classroom discussion



# ROBOSTEM Project

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



## **Assessment/Feedback:**

The teacher will evaluate the results prepared by students as well as the presentations made by them in the last part of the lesson.

## **Bibliography:**

- <https://www.arduino.cc/>