

## Lesson Plan “Platform Arduino – Building Circuits”

**Topic:** Platform Arduino – building circuits

**Subject:** ICT

**Target Group:**

VET students, aged between 12 - 15.

**Objectives:**

Obj1. To provide a basic understanding of building circuits in Arduino

Obj2. To practice building different circuits in Arduino Platform

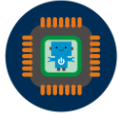
**Approach/Methodology used:** This lesson focuses on teaching VET students about building circuits in Arduino. The teacher will use a PowerPoint presentation to lecture on the explanation of building circuits in Arduino, showing different types of circuits. Next, the students are involved in a problem-based 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
- Computers and Arduino SW
- Leds, usb cable, led 3v, 220Ω resistor and jumper wires.

**Plan for work**

Time	Activities	Methods/ means
10 min.	Use a PowerPoint presentation to introduce explanation of building circuits in Arduino, showing different kind of circuits.	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 build circuits in Arduino. Supervise and support the teams while they are building circuits in Arduino SW.	Collaborative work; PC/Arduino SW / PBL template/ usb cable, led 3v, 220Ω



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		resistor and jumper wires
15 min.	Ask the teams to either present their results to the class or to another team.	Classroom discussion

## Assessment/Feedback:

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

## Bibliography:

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