



Lesson Plan “Platform Arduino – Using a potentiometer”

Topic: Platform Arduino – Using a potentiometer

Subject: ICT

Target Group:

VET students, aged between 12 - 15.

Objectives:

Obj1. To provide a basic understanding of using a potentiometer in Arduino

Obj2. To practice how to read analog input from the physical world using a potentiometer in Arduino Platform.

Approach/Methodology used: This lesson focuses on teaching VET students about using a potentiometer in Arduino. The teacher will use a PowerPoint presentation to lecture on the explanation of using a potentiometer in Arduino, showing how to read analog input from the physical world using a potentiometer in Arduino Platform. 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
- Arduino Board
- Breadboard
- 10k ohm Potentiometer
- Jumper Wires
- USB Cable

Plan for work

Time	Activities	Methods/ means
10 min.	Use a PowerPoint presentation to introduce explanation of using a potentiometer in Arduino, showing how to read analog input from the physical world using a potentiometer in Arduino Platform.	Lecture / Projector or interactive whiteboard



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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 use a potentiometer in Arduino. Supervise and support the teams while they are reading an analog input from the physical world using a potentiometer in Arduino Platform.	Collaborative work; PC/Arduino SW / PBL template/ usb cable, 10Ω Potentiometer, 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 potentiometer used by them in the last part of the lesson.

Bibliography:

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