



## Lesson Plan - Physics

**Topic/Subject:** Temperature Sensor

**Target Group:** 9<sup>th</sup> 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 how temperature sensors work
- Obj5. Learning about connecting temperature sensor to Arduino

### **Approach/Methodology used:**

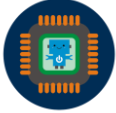
Lecture, explication, presentation, demonstration. Students learn about simple Arduino commands by connecting a temperature sensor to Arduino by themselves.

### **Means/Tools/Educational technology**

- 1 × Breadboard
- 1 × Arduino Uno R3
- 1 × LM35 sensor

### **Plan for work**

Time	Activities	Methods/ means
5 minutes	Recall of the previous lessons	Lecture
5 minutes	Preparing and explaining all the tools needed	Explication/demonstration
20 minutes	Device construction	Explication/demonstration
10 minutes	Device programming	Explication/demonstration
5 minutes	Explaining how the temperature sensor works	Lecture
10 minutes	Testing the functionality of the device	Presentation/demonstration



# ROBOSTEM Project

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



## **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\\_temperature\\_sensor.htm](https://www.tutorialspoint.com/arduino/arduino_temperature_sensor.htm)