



## Lesson Plan 'Do it yourself' - application of microcontrollers

### **Topic/Subject:**

**Topic** 'Do it yourself' - application of microcontrollers

**Subject** Computer science, Electrical Fundamentals, Microcontrollers

### **Target Group:**

Students from 1st to 4th grade, aged between 15 - 18.

Students are of different technical occupations:

- mechatronics,
- CNC operators,
- mechanical technicians and
- mechanical computer technicians.

### **Objectives:**

Obj1. Encourage the application of new technologies in practical work environments.

Obj2. Boosting the development of STEM skills

Obj3. Increasing the students' skills for insertion on the labour market.

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

learning to solve problems,  
research,  
simulation,  
game,  
project learning,  
creative work,  
change the place of learning



# ROBOSTEM Project

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## Means/Tools/Educational technology

Computers, the Internet, technical books, mobile phones, applications, IDE Arduino, Arduino uno, electrical components: LED lights, seven-segment digital display, electric motors, thermal sensors ...soldering iron, acid

## Plan for work

Time	Activities	Methods/ means
45min	In this part we brainstorm with them about ideas or inventions they could make. Practical and useful ideas in different fields of human needs and activities.	learning to solve problems, research, simulation, game, project learning, creative work

## Assessment/Feedback:

The assessment was ultimately the design and presentation of their device.

## Bibliography:

<https://croatianmakers.hr/hr/stvaralastvo/>

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

[https://issuu.com/paolozenzerovic/docs/arduino ii. izdanje - issue](https://issuu.com/paolozenzerovic/docs/arduino_ii._izdanje_-_issue)

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