



SCENARIO		
Title	Binary to Decimal converter	
Summery	This scenario helps students learn convert systems in memory.	
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Didactic objectives		
Teach students to convert from binary to decimal in memory.  Improve mental calculation skills		
Physics□	Mathematics $\square$ Information Technology $\boxtimes$ Robotics $\square$	Programming $\boxtimes$
Education Level: 10-12 years ☐ 12-14 years ⊠		
Problem Statement		
Nowadays, students have a problem with mental calculation. In this scenario we try. In this scenario, we will try to teach two competences. The activity teaches how to quickly convert from binary system, and action trains mental calculation.		
BOM (Bill Of Materials needed)		
Arduino, Leds, Digital tube, buttons.		
Activity description		
The number in decimal appears on the screen. The student must write the number in binary system by clicking the buttons. When we click the button, the light comes on, next click, turn off light. Glowing LED equals 1, off is 0. When we click button ACCEPT, program checks if we entered the correct answer. If so, we'll get a more difficult example. If no, the green LED goes out. Activity ends, when all tasks have been completed, or we will make 3 mistakes.		

"InnoExperiment – Innovative Approach to Teaching through Experiment"

<u>Project Leader:</u> Zespół Szkolno – Przedszkolny w Goniądzu (ZSP)



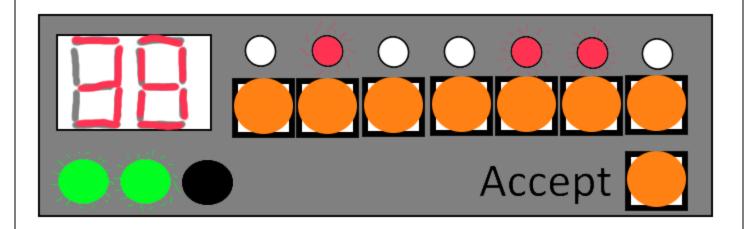








## Resources



## **Students' Evaluation**

The student will complete all levels, maximum with two mistakes.

# Bibliography

## **Scalability**

Add conversion from Decimal to binary.

#### **More information**

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