IoT 4 schools

INFOGRAPHIC #1

ABOUT THE PROJECT

The project aims to familiarize school students (aged 12-18) with the concept of the Internet of Things (IoT) through the lens of four everyday challenges: smart cities, home automation, health monitoring and environmental protection.

The project will produce educational materials for students and teachers that will enable a comprehensive introduction of IoT topics in secondary schools. Through the implementation of 6 interdisciplinary IoT projects (using the BBC micro:bit and the Raspberry Pi Pico microcontrollers), it is expected that students will develop a range of 21st century skills and deepen their knowledge of STEM subjects, while teachers will enhance theirs competences.
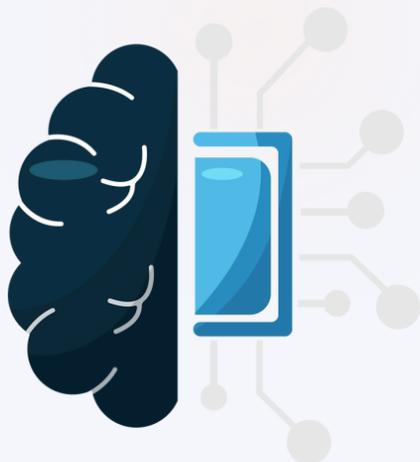
AVAILABLE EDUCATIONAL MATERIALS

1. A document titled: " Review on 21st century challenges and IoT solutions for everyday life".

2. The "IoT Handbook for teachers", which helps educators smoothly introduce IoT technologies into secondary schools by addressing real-life challenges and problems and include:
- learning objectives,
- learning methodology,
- exemplary scenarios for IoT projects addressing selected everyday challenges
- recommendations for further reading.

Available here: https://www.iot.fizyka.pw.edu.pl/results/

COMING SOON

1. A technical guide for teachers on how to use the Raspberry Pi Pico series and the microPython programming language.
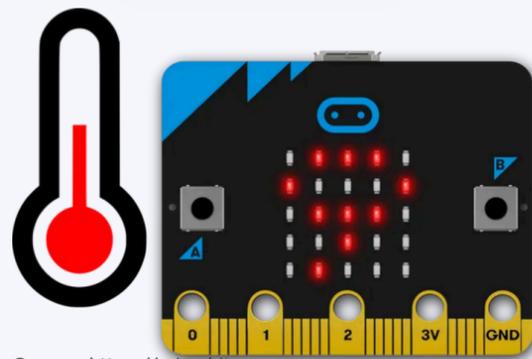
2. A technical guide for teachers on how to use the BBC micro:bit board and the MakeCode block-based programming environment.
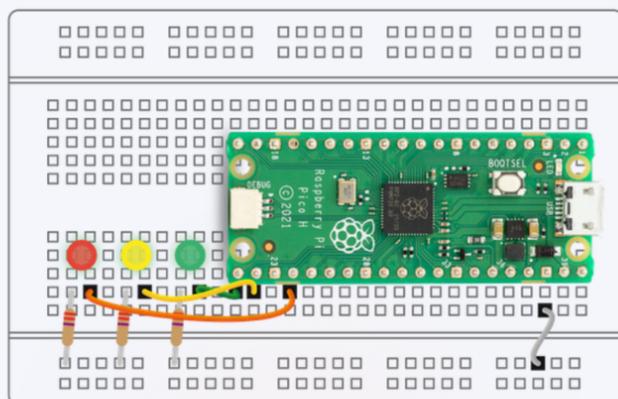
3. Interdisciplinary IoT projects with OERs for teachers and students.

Source: https://microbit.org

Source: https://www.raspberrypi.com

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