

## **Workshop on coding and robotics**

### **1.**

**Title:** Let's program a videogame with Scratch.

**Followers:** 3 Eso (14-15 years old).

**Equipment:** laptops and internet connection.

**Time:** 2 hours.

**Objectives and methodology:** Scratch is the world's largest coding community for children and a coding language with a simple visual interface that allows young people to create digital stories, games, and animations. Scratch promotes computational thinking and problem solving skills; creative teaching and learning; self-expression and collaboration; and equity in computing. The ability to code computer programs is an important part of literacy in today's society. When people learn to code in Scratch, they learn important strategies for solving problems, designing projects, and communicating ideas.

**Program:**

- short introduction about coding;
- main Scratch's tools;
- guidelines for the exercise;
- practical exercise.

### **2.**

**Title:** Flashing heart to start.

**Followers:** 2 Eso (13-14 years old).

**Equipment:** laptops, internet connection and BBC Microbit.

**Time:** 2 hours.

**Objectives and methodology:** Micro:bit is the easiest and most effective learning tool for digital skills and creativity. Thanks to Microsoft's MakeCode editor pupils will be able to start programming and get creating with the BBC micro:bit. This activity promotes computational thinking and problem solving skills; creative teaching and learning; self-expression and collaboration; and equity in computing. The ability to code computer programs is an important part of literacy in today's society.

**Program:**

- short introduction about coding;
- main Microbit's tools and functions;
- guidelines for the exercise;
- practical exercise.

