



***“MAKE: LEARN: SHARE: EUROPE”***

**Open School Unit at Fondazione Mondo Digitale**

**09 June 2017, 9.00 - 18.30**

*I part: The evolution of internet and Educational Robotics*

**Trainers:** Nocera Pasquale; Mostarda Simone; Colciago Maria Chiara; Milone Laura

**Programme:**

- Use and Programming of NXTs; Robotics, Definition and Sectors; Educational Robotics; IoT, Evolution of Network Usage.
- The goal at the end of this training is:  
Have acquired skills on NXT, on the basics of Robotics and Educational Robotics  
And on the extension of the Internet to the world of concrete places and objects.
- NXT; Enchanting; Arduino; Bluetooth Module; Example of Robot; Power Point presentation.

*II part: Learn the use and programming of Arduino*

**Trainers:** Nocera Pasquale; Mostarda Simone; Colciago Maria Chiara; Milone Laura

**Programme:**

- Introduction to Arduino; explanation of the operation of the board; various interaction demonstrations with sensors and Arduino; realization of a simple ignition and shutdown circuit of a led with Arduino; Arduino programming with scratch; Mbot programming with Mblock.
- The goal at the end of this training is:

Understand the great potential of arduino; understand the extreme simplicity of using the board; Understand the basic concepts of block programming; Understand basic

knowledge of electronics with the realization of circuits; To demonstrate the use of the board in robotics using the robot Mbot; Learn Mbot programming with the Mblock software.

- Arduino uno kit, breadboard, various wires, ultrasonic sensor, 1 led red, 1 led yellow, 1 led green, 3x220Ω resistance, scratch software, Mblock software, robot Mbot, Power Point presentation.

### *III part: Virtual Reality*

**Trainers:** Nocera Pasquale; Mostarda Simone; Colciago Maria Chiara; Milone Laura  
**Programme:**

- Introduction to virtual reality; description of the objects to be displayed; test devices; short description of software for virtual reality video game creation (Unity).
- The goal at the end of this training is:  
show the new world of virtual reality and its uses.
- Card board, Oculus, leap motion, unity software.

