





Collaboratory

Educational Technologies Lab

School of Education, Polytechnic Institute of Porto, Porto, Portugal

The School of Education of the Polytechnic Institute of Porto (ESE-P.Porto) is a Higher Education institution whose mission is centered on the Education and Training of Teachers and Educators.

In recent years, ESE- P.Porto has dedicated special attention to updating the technological means and resources that it mobilizes in its educational actions and classroom activities. The efflorescence of cheap commercial solutions, as a result of the growth of global trade, allows easy access to the most varied resources today, which has also opened up a wide range of opportunities with regard to new ways of teaching and learning. More specifically, there has been a great evolution in the area of digital fabrication) and its incorporation in didactic activities. ESE – P.Porto is not unaware of this evolution, having developed an Educational FabLab, called the Educational Technologies Laboratory.

This FabLab provides spaces and resources for the development of its own products, with a particular focus on the development of didactic tools. It is equipped with several cutting-edge technological resources, such as 3D printers, laser cutting, CNC and various workshop equipment. The Laboratory is also dedicated to the development of solutions related to Educational Robotics, with several didactic kits, microcontrollers and sensors for initiation activities in programming and basic electronics.

Technologies

3D Printing
12 FDM Printers
Materials: PLA, TPU, PETG, HDPE,
ABS

3D Printing filament manager Mosaic Pallete 4 Pro (8 filaments)

Filament maker system
Schredder
Dryer
Filament extruder
Solar Panel + Portable Battery

Laser Cut Machine 60W Bed 600mm x 400mm

CNC Router
Inventables X-Carve
1000mm² Work Space

Plotter
Silhouette Cameo 4

Wood work equipment Several electric saws

Sewing machine
Equipped for manual work with
different tissues

Soldering/Desoldering machines Equipment for electronic work



Our Expertise

Development of educational tools for Sustainability and STEAM Education

Educational Robotics

Development of didactic tools for science teaching

Implementation Circular Economy models

Design Thinking in Basic Education

Environmental Education and Sustainability