SP5700 - SP5701
EasyPET - EasyPET Kit

2D image reconstruction in real-time to explore Nuclear Imaging World!
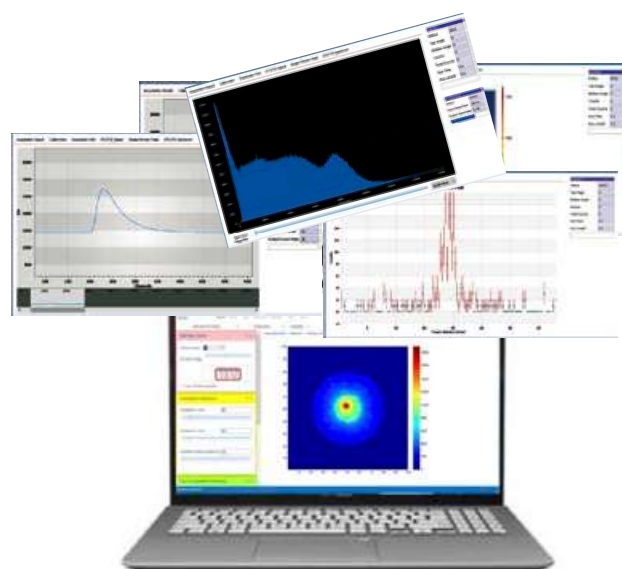

EasyPET is a simple, user-friendly and portable didactic PET system developed for high-level education, to explore the physical and technological principles of the conventional human PET scanners, using the same basic detectors of state-of-the-art systems.

The Positron Emission Tomography (PET) scanner is a state-of-the-art medical imaging system, capable of providing detailed functional information of physiological processes inside the human body.

The EasyPET - SP5700 concept, protected under a patent filed by Aveiro University, is based on a single pair of detector kept collinear during the whole data acquisition and a moving mechanism with two degrees of freedom to reproduce the functionalities of an entire PET ring. The main advantages are in terms of the reduction of the complexity and cost of the PET system. It opens the possibility of teaching by doing the basics behind PET imaging simplifying the set-up to make it accessible to Educational Laboratories.

The EasyPET is also available in a special Educational Kit, EasyPET Kit - SP5701, which includes a compact portable 16k Digital MCA - DT5770 too.

A Graphical User Interface allows the user to easily set the acquisition parameters, visualize the reconstructed image in real-time during acquisition, and perform several didactic experiments related to PET imaging, as well as offline image analysis.

Ordering Options

Code	Description
WSP5700XAAAA	SP5700 - EasyPET
WSP5701XAAAAA	SP5701 - EasyPET Kit

- Two detector cells, each composed of a LYSO scintillator crystal optically coupled to a SiPM

- Software: data analysis and EasyPET and MCA management

- Main applications:
- Basic Measurements: γ Spectroscopy and System Linearity
- Positron Annihilation Detection
- Two-dimensional Reconstruction of Source
- Spatial Resolution

Physics Experiments

Kit Model	Statistics	SiPM Characterization	Photons	Cosmic Rays	γ Spectrospopy	ß Spectroscopy	Nuclear Imaging	Environmental Radioactivity Indoor	Environmental Radioactivity Outdoor	Pulse Processing
SPS5700 EasyPET	●	-	-	-	-	-	●	-	-	-
SPS5701 EasyPET Kit	●	-	-	-	●	-	●	-	-	-

[3]Patent pending, Universidade de Aveiro.