easyPET

Intelligent PET
scanners for education,
training and research

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EasyPET is a benchtop entry-level PET scanner, developed in partnership with the University of Aveiro, designed for education, training and basic molecular imaging research, offering a simple, intuitive and cost-effective system.

easyPET technology

The proprietary image acquisition method of easyPET is based on the intelligent rotation movement of detector blocks that allows reaching super high spatial resolution PET imaging with a reduced number of detection cells.

With the best price-performance on the market, easyPET is the first truly affordable PET scanner for Universities and Health Schools. Learning by doing can finally become general practice in PET imaging, a valuable resource for students and technologists of nuclear medicine, radiopharmacy, medical imaging, biomedical engineering, etc.

advantages

- benchtop, portable PET scanner
- state-of-the-art detectors
- adjustable FOV and specific ROI scanning for enhanced sensitivity, contrast and detail
- capacity to eliminate parallax errors
- high performance, low cost
- real-time imaging
- all-in-one, user-friendly software
- education & training dedicated resources

applications

- practical PET imaging laboratory classes
- training of PET procedures such as calibrations, image acquisition protocols, static/dynamic studies
- PET image reconstruction (2D/3D) and analysis
- biodistribution research studies

easyPET software

The easyPET software is an all-in-one solution for system control, image acquisition, visualization and analysis, a user-friendly interface that includes a database for organizing acquisitions as well as dedicated resources for education and training of PET related procedures, such as calibration, image processing, filtering, application of different reconstruction algorithms, etc.
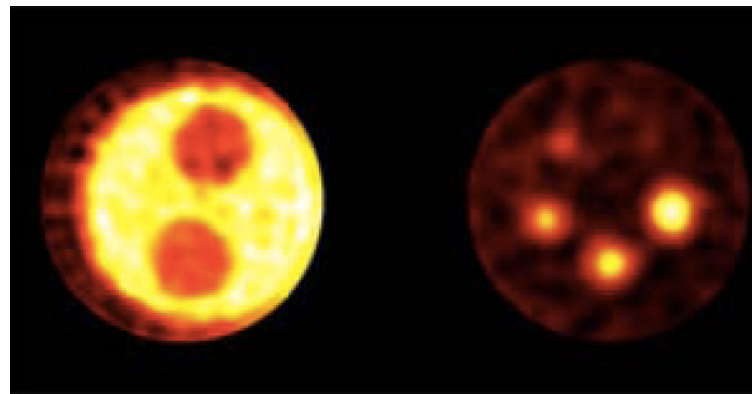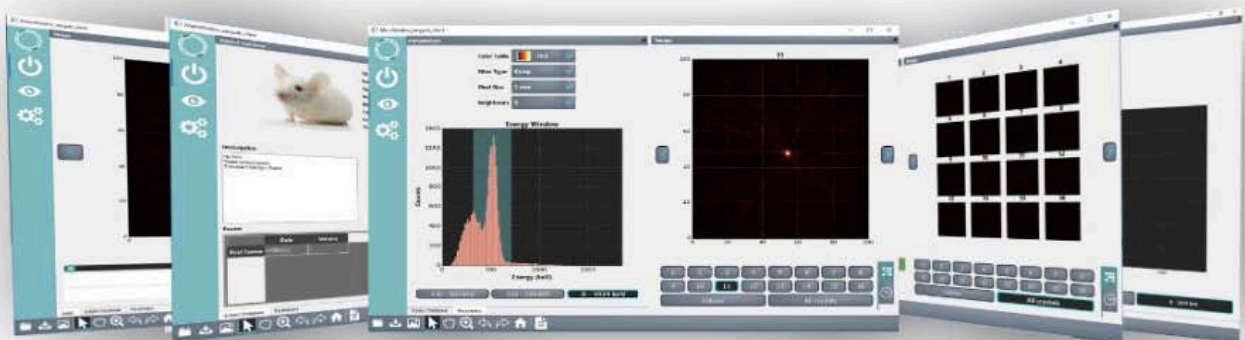

Image of NEMA NU-4 2008 phantom filled with ^{18}F-FDG

All in one software

easyPET product specifications

Performance

Field of view	4.8 cm Ø × 3.5 cm axial (adjustable diameter)
Energy resolution	15 - 20 % @ 511 keV
Spatial resolution	~ 1.1 mm FWHM in whole FOV
Max. sensitivity	0.1 %
Frame rate (max.)	30 s

Detector heads

Scintillators	LYSO, 2×2×30 mm^3
Photodetectors	Silicon Photomultipliers, 1.3×1.3 mm^2

General

Dimensions (W×H×L)	35×36×38 cm^3
Weight	25 kg
Power supply	AC/DC adapter 12V/60W
PC connectivity	USB
Acquisition console	PC with 8-core processor + 24'' monitor (included)
Imaging bed	5 cm Ø × 10 cm

Software

Acquisition modes	Fast, medium, slow
Database	Controlled access, organized acquisition info, easy search
View	16 slices/individual, 3D volume, zoom, pan, 20 colormaps, 5 filters, energy windowing, pixel size
Reconstruction alg.	FBP 2D/3D, OSEM
Export	raw data, AMIDE, 3D Slicer, Interfile; automatic report
Operating system	Windows

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