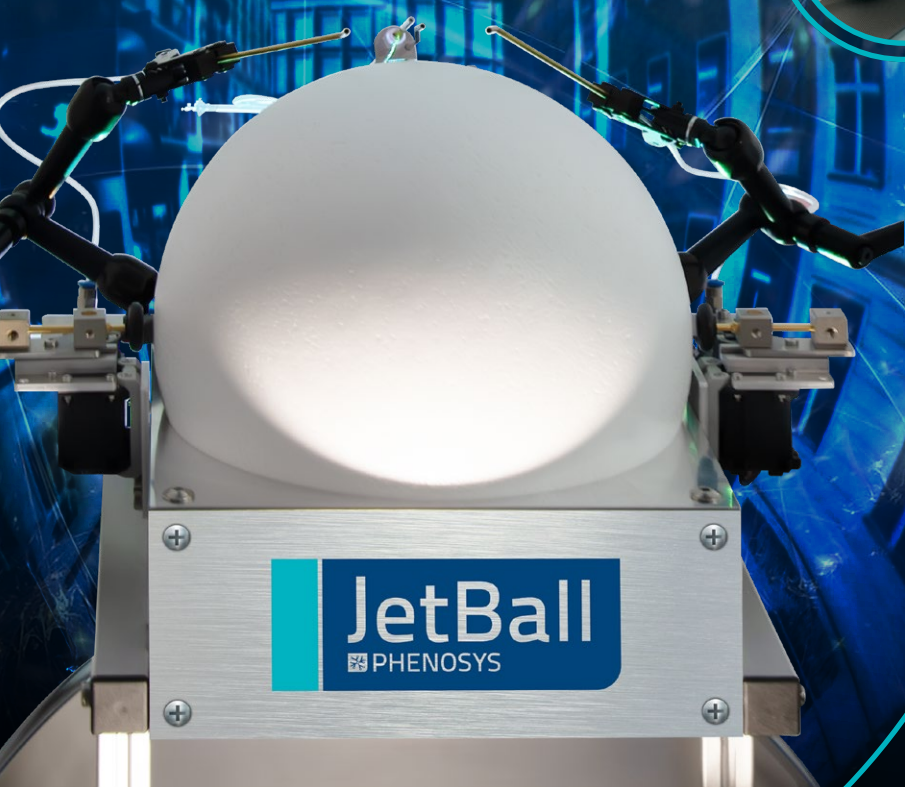
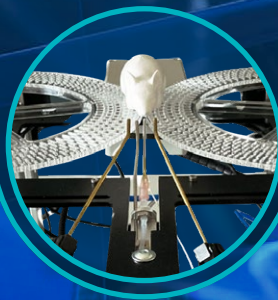


Virtual Reality Setups

Treadmills, Displays and Customized Paradigms for in-vivo, e-phys and optogenetic imaging



JetBall
PHENOSYS



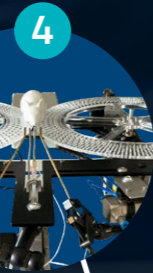
Virtual Reality Setups

At PhenoSys, we are pioneering the integration of Virtual Reality (VR) technology with brain and behaviour research on mice and rats. Our systems are developed and refined over a decade in cooperation with leading scientists. These systems empower the study of neural mechanisms with unparalleled precision and control, using optogenetic, in-vivo or electrophysiological imaging, while the animal performs navigation, learning, cognition, decision-making or memory based tasks. Our VR setups offer unmatched modularity and flexibility in the market and consist of three core components: **Treadmills, Displays and Mazes & Paradigms.**

Treadmills

Our treadmills are designed for different movement requirements, ensuring seamless integration with your study needs. Select the treadmill that best suits your research needs:

- 1 **JetBall:** For maximum paradigm flexibility
- 2 **SpeedBelt:** For ultimate running stability
- 3 **Steering Wheel:** Special setup for decision making
- 4 **DoubleDisk:** For running stability with paradigm flexibility



Displays

Our display options provide diverse visual environments, enhancing the VR experience for your subjects. Choose from a variety of high-quality display options:

- 5 **Dome Display:**
Seamless, large-scale projection
- 6 **Moculus – The Mouse Goggles:**
Complete VR immersion
- 7 **TFT Monitor:**
High-definition, 270 degree view



Mazes & Paradigms

Create and customize mazes and experimental paradigms with ease. Choose from our collection of pre-designed mazes or unleash your creativity by designing your own using our software. With unlimited options, you can incorporate unique geometries, textures, and dynamic cues to make your maze truly one-of-a-kind.



The DoubleDisk treadmill was invented by Mackenzie Mathis and her team at Harvard University and EPFL (Hausmann, S., Kane, G., & Mathis, M.W. A new mini-VR and dual-wheel platform for closed-loop motor learning and adaptation in mice. FENS 2022 Poster Session. Paris, FR.) • The Moculus was developed by BrainVisionCenter Research Institute (Judák et al. Moculus: an immersive virtual reality system for mice incorporating stereo vision. Nat Methods 22, 386–398 (2025) and is manufactured by Femtonics.

Turnkey Solutions at its best...

Our dedicated specialists offer continuous on-site and online support, providing an end-to-end VR solution from hardware to software. With expert assistance every step of the way, you can focus on your research with confidence.

Turnkey Solutions To Unlock The Brain

Made in Berlin, Germany: Get in Touch

Founded in 2006 in Germany, PhenoSys is a dynamic technology and service company that provides solutions for animal behavior research. Our turnkey systems are mainly used for brain research, imaging, and behavioral phenotyping.

We regard our customers as partners at the center of everything we do. By fostering meaningful partnerships, we continuously innovate and refine our products to meet the evolving needs of the scientific community. At PhenoSys, we are committed to pushing the boundaries of possibility, revolutionizing research methodologies, and advancing scientific discovery through technology-driven solutions.

Think our Virtual Reality Setups are the right solution for you? Contact us at info@phenosys.com. We are eager to assist and help you get started.



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