



PHYNNITTY RESEARCH PRODUCT CATALOG

THE ULTIMATE HYBRID SOLUTION FOR
NEUROSCIENCE & ECOPHYSIOLOGY



Phynitty provides a unified product line for neuroscience, behavioral, and physiological studies across both laboratory and field settings. From ultra-light, motion-focused devices to robust, multi-channel neural recording systems, our solutions adapt to your research design with precision and reliability.

WWW.MANITTY.COM



Phynitty Research Solutions

High-Throughput biologging and integrated multimodal recording technologies for freely moving animal studies

About Us

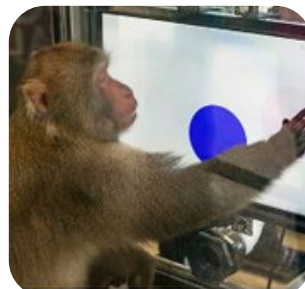
Manitty is a biotechnology company dedicated to developing advanced research tools for neuroscience, behavioral science, and physiological monitoring.

With extensive experience in biologging, telemetry, and signal acquisition, we design solutions that enable researchers to collect high-quality data while maintaining experimental validity.

Phynitty is Manitty's flagship product line, developed to meet a wide range of experimental needs across laboratory and field environments.

By combining miniaturized hardware, flexible system configurations, and integrated software, Phynitty supports precise and reliable recording of neural, physiological, and behavioral signals.

Empowering science with tools that reveal natural behavior.



About Phynitty

Tools Built for Neuroscience in Motion

Phynitty is designed for neuroscience research involving freely moving animal models, with a focus on the acquisition of multimodal high-quality physiological signals.

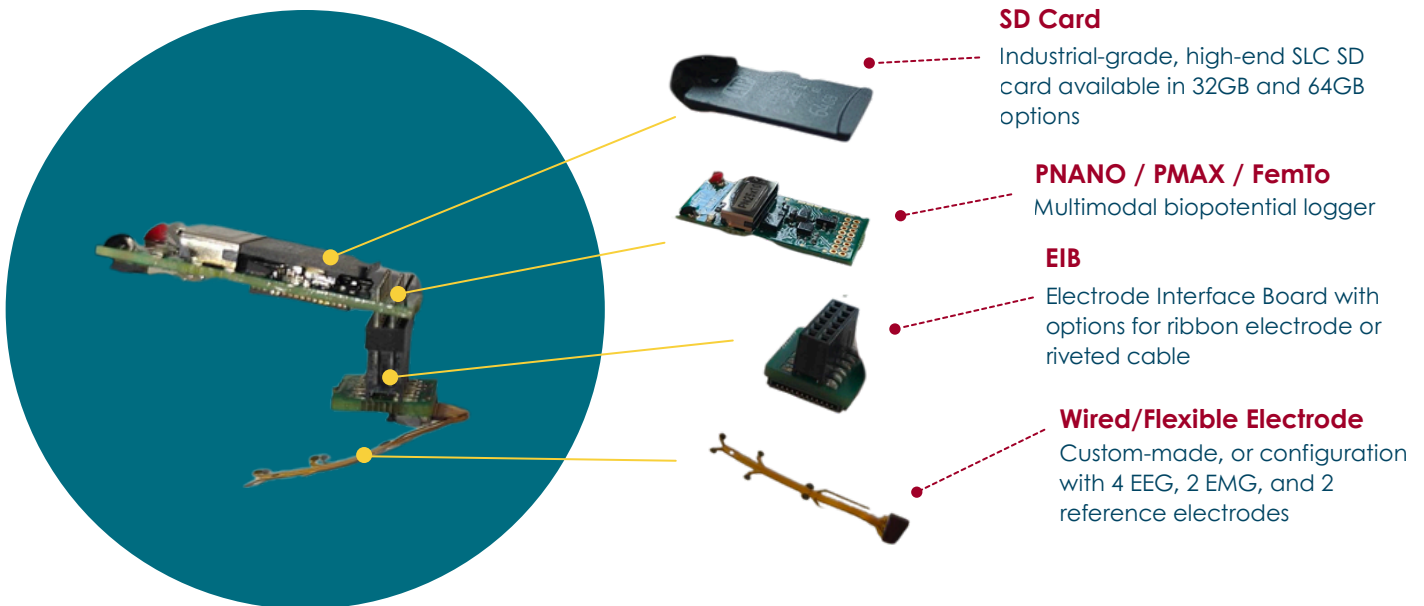
The platform enables reliable recording of neural, physiological, behavioral, and motion data while preserving natural animal behavior.

Engineered for robustness and reliability, Phynitty operates effectively in controlled laboratory experiments as well as demanding natural environments, supporting long-term studies while maintaining stable signal quality and synchronized multimodal data acquisition.

Phynitty Key Advantages

- Dual Telemetry + Biologger
- Robust & Reliable Device
- Multimodal Data Acquisition
- Scalable Multi-Animal Experiments
- User-Friendly Research Interface
- Miniaturized Lightweight Devices
- Long-Term Recording Autonomy
- Real-Time Monitoring
- High-Throughput Multichannel Recording
- Flexible Configuration

Phynitty Device Component Diagram



* PNano/PMAX/FemTo and the SD card can be detached when not recording, reducing animal burden and preventing damage commonly seen in permanently mounted systems.

The Advantages of Phynitty



Phynitty offers a professional research platform designed to support diverse experimental conditions, animal models, and research objectives.

Each device within the Phynitty product line addresses a specific use case, while sharing a unified system architecture to ensure consistency, scalability, and cross-study compatibility.

By combining miniaturized multimodal biosignal acquisition systems with configurable data acquisition protocol, and integrated software control, Phynitty provides a flexible framework that supports both real-time neurophysiological monitoring and long-term data logging.

Whether used in short-term experiments or longitudinal studies, Phynitty delivers reliable, repeatable, and high-quality data for modern neuroscience research.



P-MAX

Flexible high-capacity system for large data collection and field research. Designed for demanding experiments and diverse configurations.



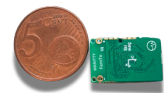
P-NANO

Compact multimodal recording for laboratory neuroscience. Supports synchronized neurophysiological and behavioral data.



FemTo

Ultra-light biosignal acquisition platform with big capacities for small animals. Optimized for long-term monitoring with minimal footprint.



ActiTag

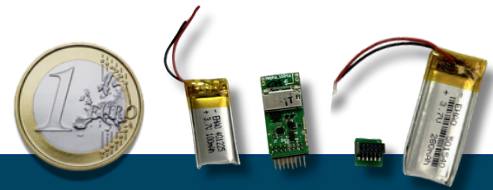
Lightweight actimetry tag for long-term motion tracking. Supports multi-tag recording for activity and posture analysis.



Research Flexibility at a Glance

- Four specialized devices within one platform
- Unified software and streamlined configuration workflow
- Real-time telemetry and long-term data logging
- Suitable for laboratory and field studies
- Open architecture supporting collaboration and data processing

Platform Capabilities Comparison



Comparison of core features across the Phynitty platforms

Feature	P-MAX	P-NANO	FemTo	ActiTag
Primary Use	Advanced capabilities & field research	Multimodal lab research	Multimodal lab research	Biologging (Actimetry tracking)
Weight (w/o battery & SD card)	1.8 g	1.7 g	1.4 g	0.9 g
Battery Life*	Customizable on request (1 day to 1 month)	Customizable on request (1 day to 1 month)	Customizable on request (1 day to 1 month)	Customizable on request
Electrophysiology Channels	16 channels (4 Differentials 12 Monopolar)	9 channels (3 Differentials 6 Monopolar)	6 channels (4 monopolar & 2 differential channels)	Behavior, Motion, posture, activity
External Sensing	Spo2 or pressure (+ add on captors on demand)	-	-	-
Motion Sensing	9-axis IMU	9-axis IMU	9-axis IMU	9-axis IMU
Physiological Signals	Custom sensors, SpO ₂ , Pressure, all measurements from P-NANO	EEG, ECG, EMG, EOG, temperatures, all measurements from ActiTag	EEG, ECG, EMG, EOG, temperatures, all measurements from ActiTag	(x, y, z) position, tilt angles, orientation, and magnetic north reference

* Battery life depends on the number of active channels, sampling rate, and recording configuration.

* Supported signals and features vary by system.

About Phynitty App

One Platform for Total Experiment Control

Key Features of the Phynitty App

- Seamless Workflow
- Multi-Device Configuration
- Protocol Synchronization
- Intuitive Experiment Setup
- High-Throughput Monitoring
- Unified Research Interface
- Lab-to-Field Study Continuity
- Live & Logger modes
- Open Data format

The Phynitty App serves as the central control center of the Phynitty ecosystem, allowing researchers to manage experiment configuration, data logging, and monitoring through a unified platform.

Designed to operate seamlessly across desktop and mobile environments, the app enables researchers to manage their studies whether working in the laboratory or in the field.

The system follows the natural progression of experimental workflow, guiding users from experiment setup to data acquisition and verification.

Researchers can define acquisition parameters, configure recording protocols, and monitor signal quality directly through the app. This integrated workflow helps maintain consistency across studies while providing visibility into the experiment status from setup to long-term research sessions.



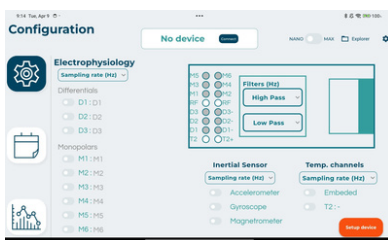
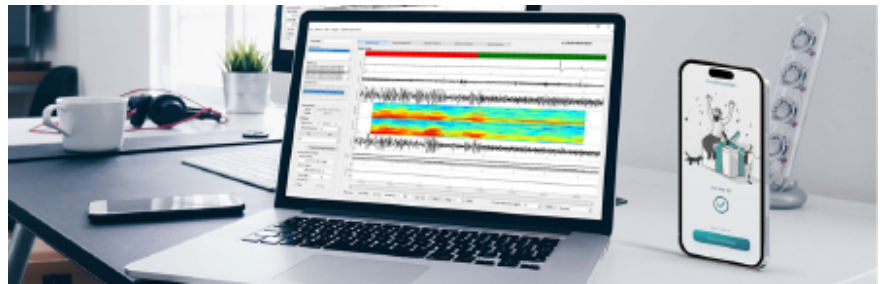
The Advantages of Phynitty App

The Phynitty App simplifies complex experimental protocols by providing powerful and intuitive tools designed for multi-device environments.

Through ConfigMaster, researchers can configure multiple loggers simultaneously and deploy identical experimental settings across devices, ensuring consistent acquisition parameters and precise time synchronization across multi-subject experiments.

The platform also supports configuration synchronization and parallel device setup, enabling efficient preparation of large-scale studies.

With high-throughput monitoring, researchers can observe multiple devices and signals in real time, maintaining full visibility of experimental progress and data quality. By combining flexible device management with a unified research interface, the Phynitty App enhances efficiency, scalability, and reliability in modern neuroscience research.



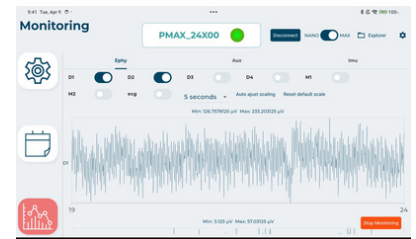
Configuration Mode

Define exactly what you measure, before the experiment begins. Configure signal types, active channels and sampling rates to match your experimental design.



Logger Mode

Capture data reliably over time, without constant supervision. Schedule automated recordings for long-term studies and recording sequences repeated experiments with consistent settings.



Live Monitoring Mode

Verify data quality while the experiment is running. View live signals and system status to confirm proper operation and make informed adjustments when needed.

Research Flexibility at a Glance

- Unified control across desktop and mobile devices
- Protocol saving, reuse, and cross-study consistency
- Clear, intuitive interface designed for efficient experimental workflows
- Fully compatible with all Phynitty platforms: P-NANO, P-MAX, FemTo, and ActiTag systems.

Research Applications

Phynitty supports a wide range of neuroscience and behavioral research areas:

- Sleep
- Memory
- Stress & Anxiety
- Depression & PTSD
- Epilepsy
- Neurodegeneration
- Pain

Solutions for Flexible Experimental Design

Multimodal Neurophysiological Data Acquisition

Synchronously acquire neurophysiological, motion, and behavioral data in freely moving animal models, supporting consistent data quality across longitudinal studies.

Continuous Monitoring Across Environments

Enable continuous experiment monitoring across laboratory, field, and demanding environments without redesigning the experimental setup.

Integrated Behavior and Physiology Analysis

Capture motion and posture data alongside perfectly time synchronized neural and physiological signals for integrated analysis.

Unified Systems, Multiple Devices

A unified platform supporting an unlimited number of specialized devices, ensuring consistency across different study designs and research scales.

Flexible Configuration and Workflow

Adapt channels, signals, sampling, and logging strategies to meet evolving research questions and experimental requirements.

Our Services

We provide technical guidance and research support to assist with system selection, experimental configuration, and study deployment. Our team works closely with researchers to ensure efficient setup, reliable operation, and long-term research performance.

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