



SIRENIA® X-Y TRACKING



SIRENIA® X-Y TRACKING enables users to accurately detect and analyze animal movement within a cage. Users can track locomotor behavior in real time or in previously recorded video data. In addition, our software can be calibrated to different cage types and is compatible with tethered and wireless animals, making Sirenia® X-Y tracking applicable to a variety of experimental paradigms.



- 1 Generate thumbnails of user-selected time periods to quickly scan movement patterns and jump to time periods of interest.
- 2 Accurately track rodent activity in real time and in previously recorded data using the animal's centroid.
- 3 Visualize the animal's spatial path throughout the session or for a user-defined period of time.
- 4 Utilize the heat map to determine the rodent's spatial preferences within the cage.
- 5 Measure speed and distance during experiments and export data to third-party programs for custom analysis and display.

KEY FEATURES

COMPREHENSIVE ANALYSIS

- Track and Analyze Spatial Movement
- Measure Distance and Speed Data
- Overlay Plots on Video Image of Cage
- All Analysis Features Updated in Real Time

CUSTOM CAGE SET-UP AND CALIBRATION

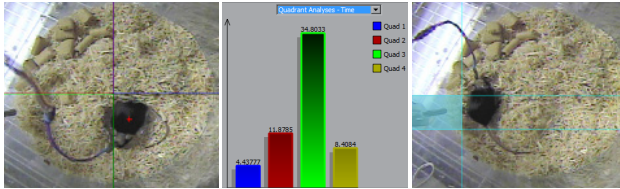
- Works with a Variety of Cage Types
- Tethered and Wireless Animals
- Robust, Accurate Tracking Day and Night
- User-Defined Zone Analysis

PLUS

- Export Data to Spreadsheets
- Produce High-Quality Images
- Fully Customizable Interface

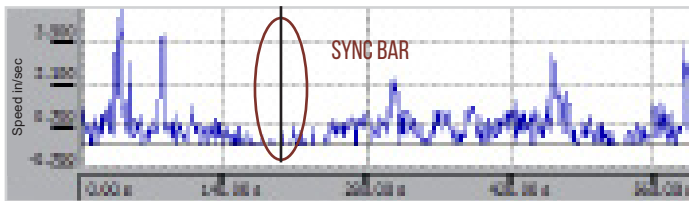
Analyze animal movement using heat maps, movement trajectories, quadrant analysis, speed plots, and much more! The average distance and speed for one-, five-, and 15-minute intervals are displayed on screen. All plots and distance data are updated in real time or during post-analysis. Easily produce high-resolution images and export data to third-party software.

QUADRANT ANALYSIS



Assess locomotor activity based on the animal's cage usage. Default settings divide the cage into quadrants, or users can define up to three unique zones. Total time and distance accumulated in each quadrant and zone are automatically analyzed.

SPEED PLOT



Evaluate the animal's speed for the entire session, or track speed as it is updated in real time. In playback mode, the black **Sync Bar** allows users to easily match the displayed video frame with the corresponding speed data.

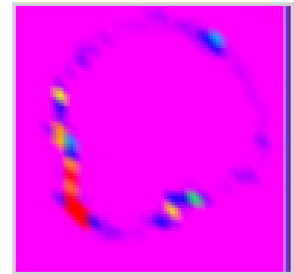
MOVEMENT TRAJECTORIES



The movement trajectory plot is continuously updated in real time, showing both recent (blue) and past (red) activity. Visualize the animal's spatial patterning throughout the session in a single plot, or use the thumbnail feature to create time-segmented trajectory plots to identify recurring patterns and distinct changes in locomotor behavior. Time parameters and line characteristics can be set by the user.

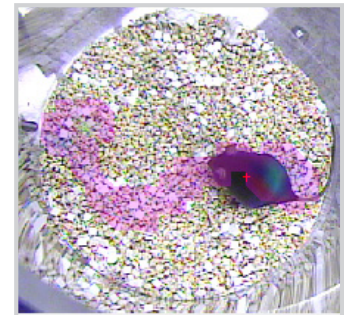
HEAT MAP

The real-time heat map provides a visual representation of the animal's spatial location. This feature is useful for identifying the rodent's preferred spatial location within the chamber.



OVERLAY CAPABILITY

Overlay quadrants, trajectories, and heat maps on the video image for an exciting way to visualize and present locomotor behavior.



Request a 30-day free software trial and try it for yourself!

Contact a Pinnacle representative for your key:
785-832-8866 or sales@pinnaclet.com

