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A General Platform for Automating Mouse Behavioral Measures

An automated system for high-throughput measurement and analysis of mouse behavior to accelerate research and development.

Mouse experiments are integral to drug discovery and development, but mouse experiments are hampered by three key factors:

1. Human handling of mice generates stress and fear responses, which can cloud results

2. Mice are generally nocturnal, but most data is collected during the day by humans, which can taint the data collected

3. Continuous data collection requires animals to be singly housed, which is expensive and increases animal stress

Researchers at Purdue University have developed a general platform that automates data collection, treatments, and the movement of mice between cages without human interference. It integrates data collection with the home cage, allowing for continuous data collection and individual-level data from group-housed animals.

Advantages:

-Improves quality of animal data by minimizing human interference

-Allows for automatic data collection

-Integrates data collection with home cage environment

-Gathers individual data from group-housed animals

Potential Applications:

-Drug discovery and development

-Research

Technology ID

65341

Category

Robotics & Automation/Automation & Control

Biotechnology & Life Sciences/Analytical & Diagnostic Instrumentation

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View online

TRL: 7

Intellectual Property:

Provisional-Patent, 2009-06-08, United States | NATL-Patent, 2010-06-08, European Patent | PCT-Patent, 2010-06-08, WO | Utility Patent, 2011-12-07, United States

Keywords: automated mouse behavioral measures, automation technology, behavioral measures platform, rodent behavioral analysis, video tracking software, automated animal detection, behavioral test, phenotyping of mice, tracking software, automated behavioral experiments, Agriculture, Animal Health & Nutrition, Animal Testing, Biotechnology, Drug Development, Testing, Veterinary