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TRANSFORMING IDEAS  
INTO INSTRUMENTS

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MOTORY COORDINATION, GRIP STRENGTH, ACTIVITY

## Multiple Activity Cage

Cat. No. 47420

### General

An animal level of general activity or locomotion is an indicator of drug action, toxic substances, neurological damage, or daily rhythms in activity.

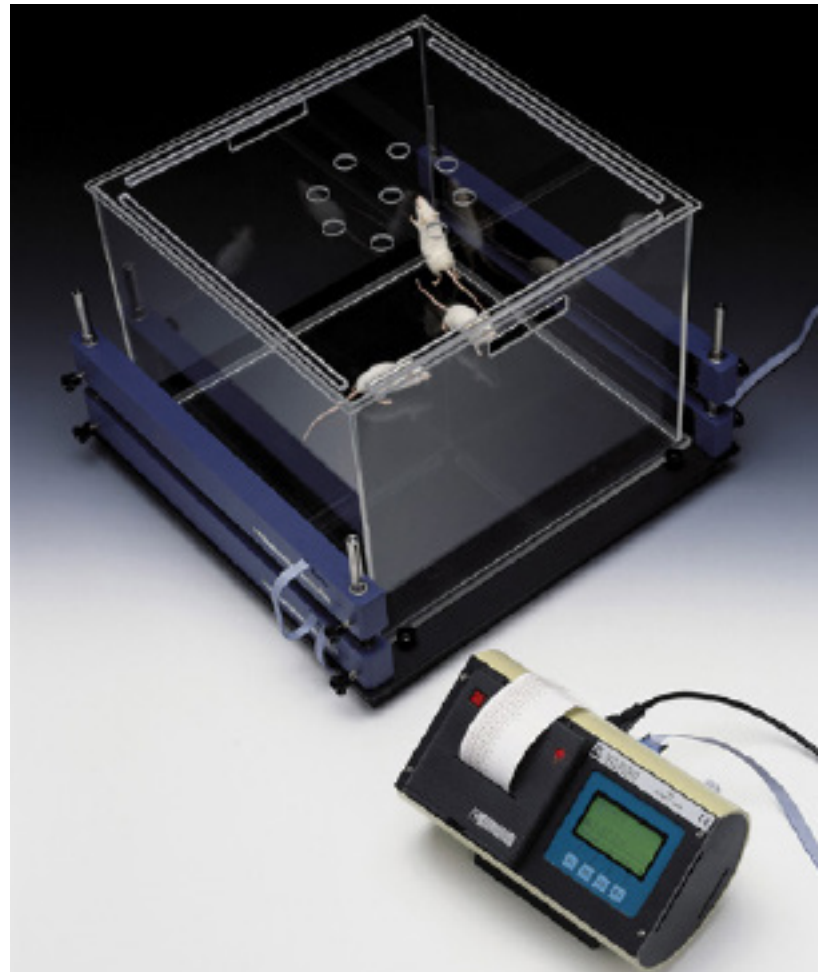
Activity data may be automatically and unobtrusively collected by many methods.

The Ugo Basile Activity Cage has proved to be of great value to record spontaneous co-ordinate activity in rats and mice (individual or groups) and variation of this activity in time.

As the animal moves about a clear acrylic cage, it interrupts one or more infrared beams. The beams are arranged in an array of emitters on one side of the cage, detectors on another.

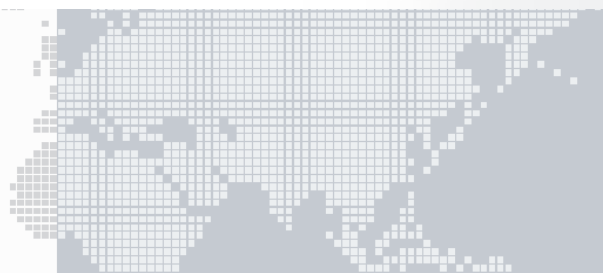
The lower IR array monitors horizontal movement while the upper IR array monitors vertical or rearing activity.

The number of beam breaks is correlated with the amount of movement about the cage.



With dedicated  
software included

STAND-ALONE CON-  
TROLLER WITH EMBED-  
DED PRINTER FOR GLP  
AND DATA SAFETY



### MAIN FEATURES

- Measures **horizontal and vertical activity in rats and mice**, useful in the following types of investigation:-
- **General Toxicology**, ascertaining the action of a drug on the animal's activity
- **Psychopharmacology**, screening drugs which are potentially active on the CNS
- **Behavioural Sciences**, in evaluating the variations of spontaneous activity after changes in environmental conditions

**Ugo Basile: more than 25,000 citations**

## Instrument Description

The **47420 MULTIPLE ACTIVITY CAGE** package comprises:

- an **Electronic Unit**, Cat. 7441
- an **I.R. Beam Cage**

This set-up can accept up to 5 additional cages, for a total of 6.

### Electronic Unit

The **7441**, designed to process the data originated by **up to 6 Cages**, incorporates a graphic display, a thermal printer and a serial port RS232 for direct connection to the PC via the software Cat. 52050 included. A serial to USB adaptor is also included.

The graphic display presents all available commands. The operator sets the experiment configuration via the keyboard located below the display.

The activity data are displayed at preset intervals and printed/routed to the computer according to the selected configuration. The data can be customized by adding animal & experiment numbers, gender, etc.

Its internal memory is capable to store the data of several experiments, to be unloaded to the PC later.

### Cage

The **7433** Cage consists of a cubicle, entirely made of clear Perspex, dimensioned 41x41x33(h)cm. Upper lid and bottom catch pan detachable for cleaning.

The cubicle rests on a sturdy base, provided with four vertical notched bars of stainless steel to which the horizontal/vertical detecting systems 7435 and/or 7436 can be fastened.

The **7435** consists of two facing blocks containing an I.R. array of emitters and, respectively, sensors, to record the **horizontal activity**. A similar system, Cat. **7436**, whose height can be adjusted, assesses the **vertical activity (rearing)**.

**Open-field cages** are also available, in different dimensions and colors: ask for additional details

## Data Acquisition

The electronic unit is microprocessor controlled and features direct PC output. Internally-stored data can be routed via a 9-pin D-type connector to the PC serial port (RS232).

Data output is managed by **52050-04** Data Acquisition Software Package (Windows® based), which enables the research worker to store the data into individual files, ready to be easily managed by most statistical analysis packages available on the market.

Combination with ANY-maze videotracking software is also possible, to integrate the quantitative measure of general locomotor activity, collected by our Activity cage, with more detailed information about the animal activity.

Moreover, the 47420 will add vertical activity (rearing) to videotracking data. **Ask for additional information!**

### Ordering Information

**47420** **MULTIPLE ACTIVITY CAGE**, standard package, including following parts:

- 7441** Electronic Unit
- 7433** Animal Cage
- 7435** Set of emitter/receiver sensor arrays for horizontal activity
- 7436** Set of emitter/receiver sensor arrays for vertical activity

- 47420-302** Instruction manual (on USB flash drive)
- 37400-305** Package of 10 Heat Sensitive Paper Rolls
- E-WP008** Mains Cord
- 52050-04** Dedicated Software Package CUB
- 52010-320** USB to serial port converter
- 52010-322** Serial cable 9 to 9 pin

### Physical

Weight **7441** 2.7Kg  
**7433** 11.8Kg (including 7435/7436)

Dimensions  
**7441** 27x16x19cm  
**7433** 54x50x37cm

Shipping weight 26Kg (whole set-up)  
Packing 80x60x44cm

### Bibliography

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