

# CINCINNATI WATER MAZE

## Nine T-maze

*Rat version*



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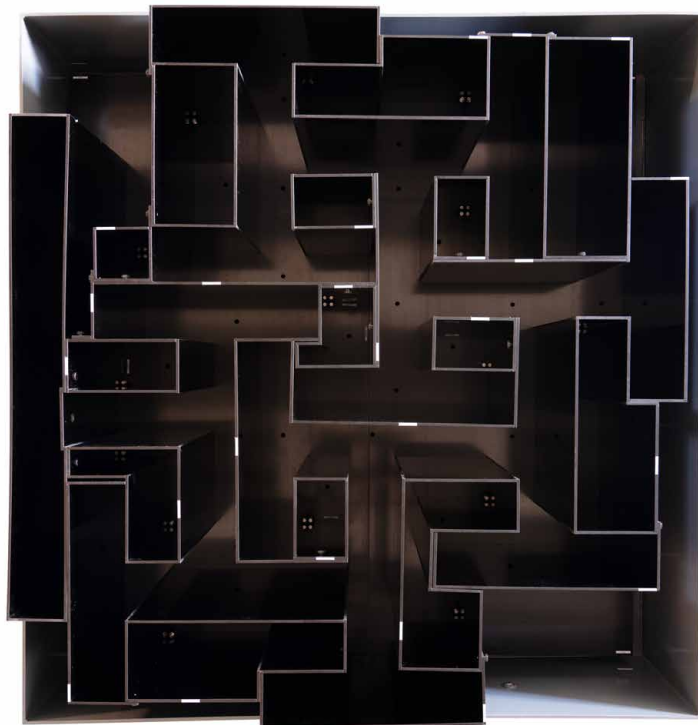
ugo basile<sup>®</sup>

TRANSFORMING IDEAS  
INTO INSTRUMENTS

## Cincinnati water maze nine T-maze

*The Cincinnati Maze (9T-maze) is an evolution of the Biel Maze with an increased number of interconnected T-mazes.*

*It is most commonly used as a water maze to avoid scent issues and is used on rats to study egocentric navigation (memory). In order to avoid any possibility of external cue use, the maze is constructed in IR-transparent Perspex to run the experiment in full darkness and ensure that movements are due to egocentric and not allocentric mechanisms.*



*The ability to learn and remembering different locations is encoded in the brain by two systems: one which uses external cues (allocentric) and one using internal cues (egocentric). The structures of the brain involved in the two types of memory are different and hence the ability to run tasks that can dissect them is important.*

*Through the asymmetrical T-mazes which constitute the Cincinnati maze, the number of errors to reach the goal, the time and distance spent are measured to get an index of such memory and ability after an initial training period.*

*Applications are many, from Alzheimer to epilepsy and all those neural phenomena which involve spatial memory, especially when the areas of the brain governing egocentric navigation are to be investigated. An advantage versus the more commonly used Water Maze is that the latter focuses essential on external cues and it is not possible to count the number of errors as endpoint, while in the Cincinnati maze this is possible.*

## Product Description



The Ugo Basile Cincinnati Maze for rats is a 2x2 mt arena, plastic built with a training corridor, provided with a manual operated door and 9T-mazes interconnected.

The main bath holding the maze is made in gray PVC and needs to be water filled; it provides special drains to easily empty, overflow to maintain the water level and 4 breakable wheels for easy handling.

The training corridor and all the maze walls are built using IR light transparent plastic material to make possible experiments in the darkness and avoid shadow areas while video tracking using an above placed IR-sensitive video camera and a ceiling IR illumination system.

ANY-Maze video tracking software can be provided to perform the experiments, but the apparatus is compatible with all video tracking software.

Design is made to allow an easy de-mount of all the maze parts for a deep cleaning.

The water level is controlled by an overflow pipe that can be changed to control the desired maximum water level.

The Cincinnati water maze can be used with tethered and non-tethered rat.

*What You need to buy to complete the system:*

SKU 47400-040

B/W USB Camera, including 2.8-10mm day&night varifocal lens, 5m USB cable and ceiling support.

SKU 60000

ANY-maze, flexible video tracking system designed to automate testing in behavioral experiments. Full License, including lifelong support and updates.

IR illumination system: to be ordered locally.

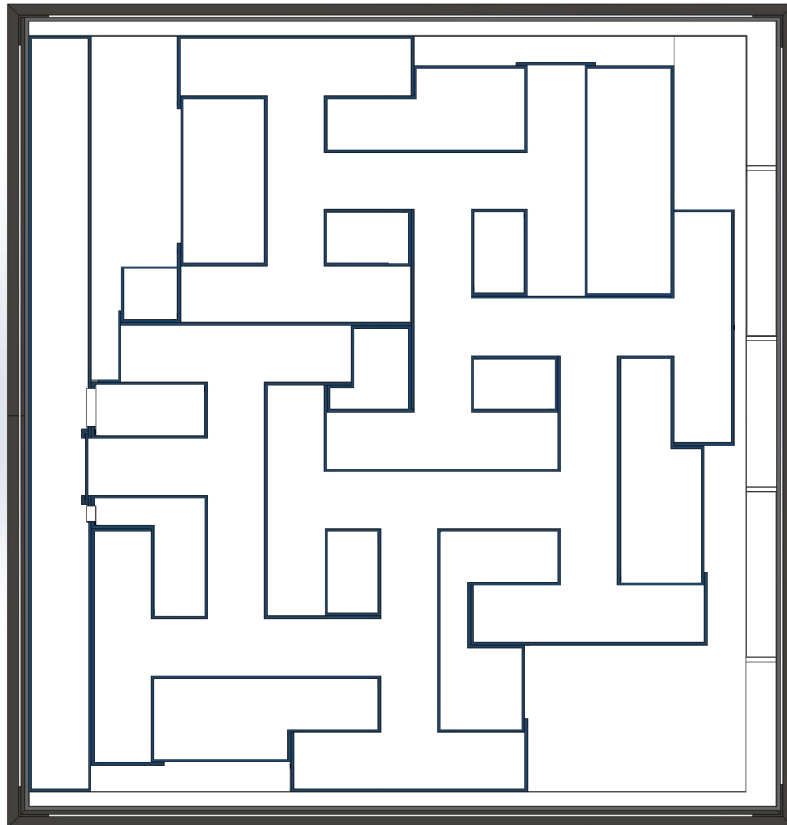
## Specifications

|                       |  |
|-----------------------|--|
| Base dimension        | 2'000 x 2'000 mm   |
| Device overall height | 865 mm   |
| Maze walls height     | 510 mm   |
| Maximum water level   | 200 mm (standard overflow) can be customised                                       |
| Total Weight          | 550 kg   |
| Shipping dimensions   | Pallet 2,3(l)x2,3(d)x1,1(h)  |
| Shipping weight       | 600 kg   |
| Warranty              | Cincinnati Maze is covered by a 12-month warranty + 12 after product registration. |

## Ordering informations

|           |  |
|-----------|--|
| 42500     | Cincinnati water maze Rat - IR transparent walls (9 T-maze)  |
| 47400-040 | B/W USB Camera, including 2.8-10mm day&night varifocal lens, 5m USB cable and ceiling support.   |
| 60000     | ANY-maze, flexible video tracking system designed to automate testing in behavioral experiments. Full License, including lifelong support and updates. |

### Maze design



## Related Products



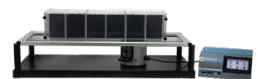
*Tail Flick Unit - Thermal stimulation, D'Amour & Smith method*  
Product Code: 37560



*Thermal Place Preference for Mice and Rats*  
Product code: 35350/35360



*Hot/Cold Plate - Screening of Thermal Hyperalgesia/Allodynia*  
Product code: 35300



*Plantar Test for Thermal Stimulation - Hargreaves Apparatus*  
Product code: 37570

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