

8 Arms Radial Maze

LF0822A

The assessment of animal memory using different types of mazes has been longly used in neurosciences. Several models have been proposed recently, mainly trying to evaluate accuracy of choice between the alternatives presented in the same day of the session, instead of looking for the accumulated learning through successive days of training.

The “Eight Arms Radial Maze”, proposed by D.S. Olton & R.J. Samuelson (J.Exper. Psychol: Anim. Behav. Procs. 2:97, 1976) is one of the most extensively used in behavioural laboratories all over the world, mainly due to the flexibility of its structure, allowing the testing of spatial memory but also non-spatial cue memory linked with motivational elements.

The Panlab Radial Mazes are made of black Plexiglas (6 mm thick, all inner surfaces matt finished), equipped by a 100 cm high tripod. Basically exist two: models for mice and for rats.

The arms are easily detachable by unscrewing an underneath fixing knob. In the proximal extreme, a sliding door is installed to close the entry to the arm.

In the distal extreme of each arm, a detachable recessed cup can be installed, replace the supplied covers.



Models

Manuals: The doors are operated by the user The animal position is visual.

- LE 760** Rats
- LE 762** Mice

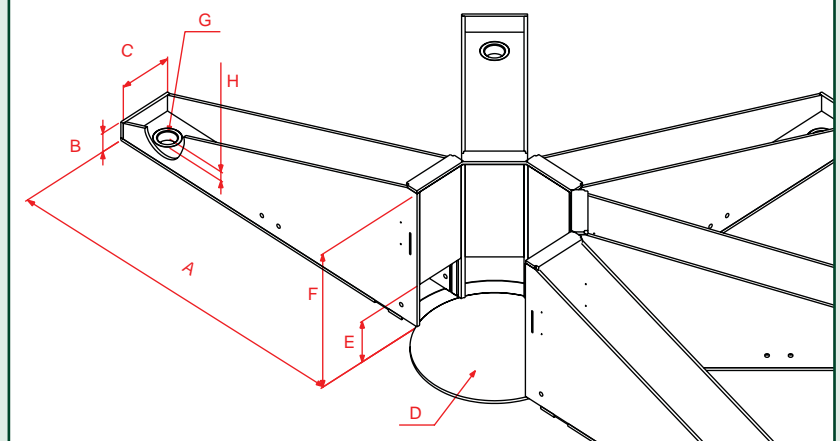
Automatic: The doors are operated according with Mazesoft-8 software and the animal position is detected by infrared beams and weight transducers.

- LE 766** Rats (Mazesoft-8 Included)
- LE 768** Mice (Mazesoft-8 Included)

Controlling by SMART (VIDEO TRACKING): The door are operated by Remote Control or through SMART (see SMART catalogue).

- LE 767** Rats (Needs Smart)
- LE 769** Mice (Needs Smart)

		A	B	C	D	E	F	G	H
LE762/ LE768/ LE 769	MOUSE	350	26	58	∅167	50	150	∅18	12
LE760/ LE766/ LE 767	RAT	705	41	100	∅287	90	294	∅34	20

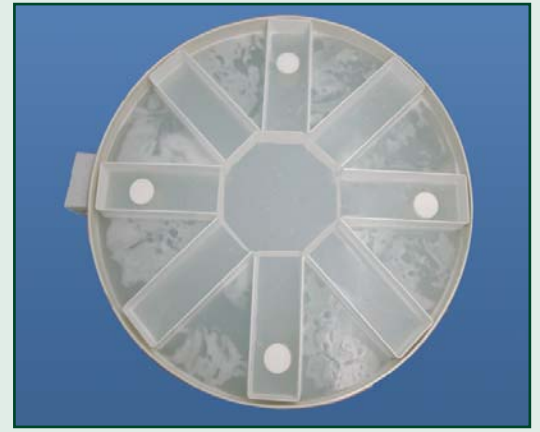


Aquatic Radial Maze LE 772

Maze for rats. The floor is made of Stainless Steel and the walls in white Plexiglas. The doors are manually controlled. It is supplied with an island.

Dimensions:

Wall height:	25 cm
Corridor width:	13,8 cm
Length:	on request



Mazesoft-8

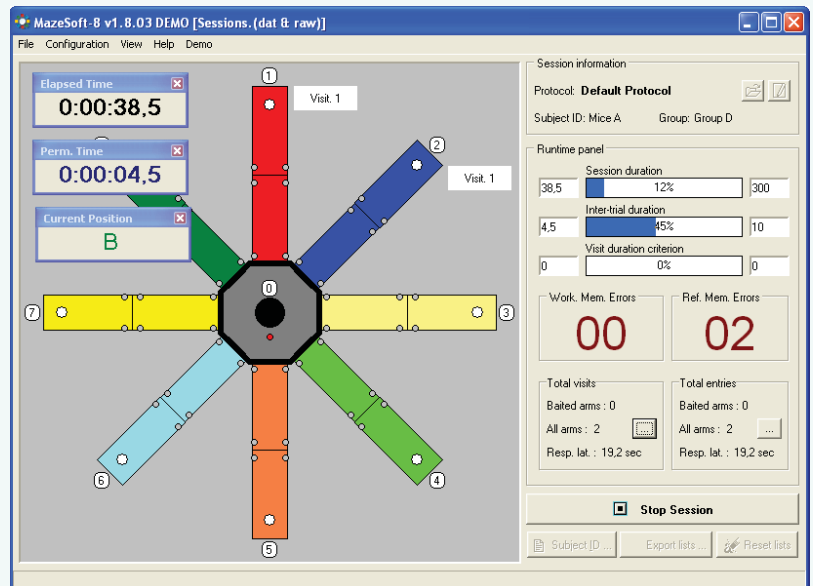
MAZESOLFT-8 is complete and easy-to-use software for monitoring radial maze experiments. It has been specially designed to work with the Panlab radial maze apparatus equipped with rows of infrared photocells for the automated detection of animal position.

The software allows for the full control of the arm doors either manually (by means of a button panel in the computer screen) or automatically, when a trained subject is being tested.

MAZESOFT-8 allows the user setting any of the standard protocols for the study of working and reference memory in laboratory animals. The protocols are easy to configure, the user only have to enter some important parameters: designation of the baited arms, conditions to stop the experiments, time-interval between each trial, doors monitoring mode, criterion for considering the arm visited... Each protocol configuration can be saved and opened for use when necessary. A "trial header" can be use for recording all the necessary information associated with the current experiment (code of trial, experimenter, challenge, dose, subject identification, comments).

In MAZESOFT-8, the maze is virtually divided into 17 sections: 8 equally sized arms (each one divided into proximal and distal section) and a central area. One experiment can be composed of several trials, depending on the number of experimental groups and animals per group used in the study. The system considers an arm being visited when the subject has been detected in the distal part of the arm. During each trial, the elapsed time, permanence time in each area and current position of the animal can be visualized in real-time. Real-time information about the animal position and the number of visits made are also graphically shown on the screen. A Runtime data panel shows the cumulated number of working and reference memory errors together with other important data (response latency, number and list of visits and entries into the arms etc...)

MAZESOFT-8 provides a summary data table containing the complete information about each session (subject name, group, date) together with all the integrated data of interest. The tables of session can be re-organised before exportation according to parameters previously entered in the trial header (by subjects, by groups, by experimenter, etc.). Data from the summary data base as well as the detailed chronological listing of the animal positions for each session can be easily exported to Excel.



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