



HYDRAULIC “ATLANTIS” PLATFORMS

FOR WATER MAZE EXPERIMENTS
Cat. No. 40100

NO ELECTRICITY! NO HANDS IN THE POOL !

WHY AUTOMATED PLATFORMS?

Despite it being very effective, the **Morris Water Maze** task has some limitations, which relate to the fact that the platforms normally used have fixed height and cannot be raised during Probe tests. Probe tests run with the use of a **lift platform** give more reliable indications on the presence of true spatial learning.

Ugo Basile Atlantis Platforms are made of clear Perspex and are operated by hydraulic force. No electricity is present inside the pool. The electrical parts of the mechanism (i.e. the electro-hydraulic actuators) are safely located outside the pool



Main Features

- 4-Platforms with one Controller
- Manually or PC-Operated
- Remote lifting/lowering control
- No Electricity in the pool

Consistency of positioning in the four quadrants - no more hands in the pool !

The 4-channel control unit connects up to 4 platforms.

Each platform is driven independently so that the Water Maze experiment can be completely automated by positioning a platform in each of the 4 quadrants of the pool.

Once the set of 4 platforms has been positioned in the pool, the whole experiment can be run automatically, simply using the control unit or external triggers.

Specifications

- 4 independent channels, with manual or TTL mode
- Platform vertical range: 25-35 cm
- Speed of the platforms: 10 mm/s
- Platform diameter: 10 cm

Manual or automated /Via TTL) operation modes

Different operation modes are possible using the Ugo Basile Atlantis hydraulic platforms.

In the **manual** mode the platform goes up and down in steps in 1 cm by simply depressing a key; in the automated mode the platforms can be operated by external triggers (TTLs), controlled by any videotracking software.



Each platform can be kept submerged, and raised automatically when the animal swims above it. This protocol allows one to exclude from the test "navigation strategies" in which spatial memory is not involved.



Ordering Information

40100 Complete 1-Platform System, consisting of:

- 1 Platform 40101-002
- 1 Motor 40101-003
- 1 4-Channel Controller 40100-001

40400 Complete 4-Platform System, consisting of:

- 4 Platforms 40101-002
- 4 Motors 40101-003
- 1 4-Channel Controller 40100-001

40101 Additional platform and motor

Available Accessories

Pools, Tubings, Parallel Cable with BNC output, PCMCIA- Parallel Port, ANY-maze Software, AMi interface

Bibliography

- R.I.W. Spooner et al.: "The Atlantis Platform: A New Design and Further Developments of Buresova's On-demand Platform for the Water Maze" *Learn. Mem.*: 1: 203-211, 1994
- G. Riedel et al.: "Reversible Neural Inactivation Reveals Hippocampal Participation in Several Memory processes" *Nature Neurosc.*: 2 (10): 898-905, 1999
- I.Q. Wihshaw et al.: "The Behavior of the Laboratory Rat: A Handbook with Tests" *Oxford Univ. Press, USA*; 1, 2004