

Elevated Zero Maze
IACUC Standard Procedure
Effective Date: October 2021

Description of Procedure:

The Elevated Zero Maze is used to assess anxiety, emotionality and reactivity. It is a more novel variation of the Elevated Plus Maze. Like the Plus maze, the arena is elevated and consists of two open areas and two closed areas (both of equal area). Both of these areas are equipped with rows of infrared photocells interfaced with a computer. While the open areas are, by design, anxiogenic, the animal is free to move into the closed areas.

Procedure Steps:

1. Habituation of the animal in the testing room for an hour prior to the test is encouraged.
2. The animal is placed in the arena and allowed to explore for approximately 10 minutes while white noise may be played to eliminate distracting sounds. To start the test, the animal is positioned in an enclosed quadrant. The animal may spend time either in a closed area or in an open area.
3. A computer tracking system can be used to record the animal's movements around the arena. Alternatively, the animal's movements and behavior can be video-recorded using a camera placed overhead. The researcher can then use post-video processing software to assess distance and time obtained from the video recordings.
4. Variables of interest typically include latency to enter an open quadrant, time spent in open and closed quadrants, and activity in the closed and open areas of the maze.

