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## Open Field

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DOI

<https://dx.doi.org/10.17504/protocols.io.5qpvo972xv4o/v1>

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**Protocol status:** Working

We use this protocol and it's working

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## Abstract

Protocol for general locomotion in rodents using open field arenas and Ethovision video tracking.

Purpose: Assess cognitive, spontaneous motor activity, and anxiety

Note that there are many variations of this test. We perform this test during the mouse's dark cycle (i.e. their active phase).

## Materials

- Open field boxes (usually we use 4 boxes and test 4 mice at a time) – measurement 40 cm x 40 cm – solid color (depending on mouse fur for contrast), not transparent
- 70% ethanol and water spray bottles for cleaning

## Troubleshooting

## Before start

Note that our lab performs this assay in the dark phase to reduce stress and to test animals during their active cycle. Our animals are kept on an inverted light cycle.



## Protocol for Open Field Test

12m

- 1 Acclimate mice to the behavior room for 30 minutes to 1 hour before starting.
- 1.1 Mice were consistently tested around the same time interval in the morning, between 8am-10am
- 2 The mouse is gently carried and placed in the center of the OF box.
- 3 Let mouse explore the environment for 12 min (keep consistent across experiments). Motor activity is recorded for all 12 minutes using a set of camera + Ethovision software.
- 4 At conclusion, return mouse to the home cage and clean OF boxes with water-EtOH-water sequence solutions.
- 5 Start with another mouse, etc... until finished

12m