



VERSION 2

APR 09, 2024

OPEN ACCESS



DOI:

dx.doi.org/10.17504/protocols.io.14egn3ko6l5d/v2

Protocol Citation: daniel.dautan
daniel, Per Svenningsson 2024.
Descending Platform.

protocols.io

<https://dx.doi.org/10.17504/protocols.io.14egn3ko6l5d/v2> Version
created by Eileen Ruth Torres

License: This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working
We use this protocol and it's working

Descending Platform V.2

daniel.dautan daniel^{1,2}, Per Svenningsson^{1,2}

¹Department of Clinical Neuroscience, Karolinska Institutet, 171 76 Stockholm, Sweden;

²Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD 20815, USA

ASAP Collaborative Research Network

Kaplitt Protocols



Eileen Ruth Torres

Weill Cornell Medicine

ABSTRACT

Behavioral test to assess motor function.

The test is using a custom made 45-degree grid path with a width of 5cm and a length of 45cm. The 15cm one side is oriented with a 45-degree angle. The grid is formed by metal mesh with a 0.5cm space between.

MATERIALS

Horizontal grid: custom made 45-degree grid path with a width of 5cm and a length of 45cm. 15cm of one side is oriented with a 45-degree angle. The grid is formed by metal mesh with a 0.5cm space between.

Created: Feb 22, 2024

Last Modified: Apr 09, 2024

PROTOCOL integer ID: 95635

Keywords: ASAPCRN, behavior, motor

Funders Acknowledgement:

Aligning Science Across

Parkinson's

Grant ID: 020608

- 1 Place the custom-made, metal mesh grid to have an angle of 45 degrees with the floor.
- 2 Place a camera above the grid to record the entire procedure. Here we use the Logitech C920 webcam and windows camera software.
- 3 Orient the grid to have the starting spot horizontal.
- 4 At the end of the platform, place the animal cage to provide a safe target.
- 5 Take the mouse out of its cage using a paper tube to avoid stress and gently place the mouse on the starting spot.
- 6 Allow the mouse to explore the starting spot for 2-3 minutes.

- 7 Gently push the mice towards the tilted part of the grid path.
- 8 As soon as the mouse's hindlimbs are crossing the separation between the starting spot and the tilted spot, leave the mouse alone.
- 9 As soon as the mouse reaches the cage, stop the camera and place the cage back into the ventilated rack.
- 10 Clean the platform with 50% ethanol solution to remove stress-related smells.
- 11 Using the video, record the time for each mouse to go from:
1- hindlimb cross the starting spot line to 2- hindlimb touch the cage on the bottom.
- 12 Using 5 randomly selected frames of the period the mice descend the platform, measure the distance between the hindlimb of the mice, average the result to get usable values.