



**MMMPP**  
Melbourne Mouse Metabolic  
Phenotyping Platform



## Acceleration/velocity racetrack

### 1. Experiment

Assess acceleration and velocity of mice as they run end-to-end

### 2. Aim

To measure differences in mouse acceleration and velocity

### 3. Equipment



The Columbus racetrack is used to assess acceleration and velocity of mice as they run end-to-end. The runway measures 2.5 meters long and 10 cm wide. Walls have height extensions to accommodate animals that may try to jump out of the track lane. Photobeam "curtains" are spaced evenly at 10 cm intervals (24 gates total); as the subject runs end-to-end they break these photobeams and time is measured between each gate allowing for calculation of acceleration and velocity.

### 4. Training requirements

Researchers are required to complete adequate training prior to independent use. Training takes approximately 30 min and is usually scheduled to coincide with the first booking of a new user.

### 5. Experiment design considerations

- When making bookings please note that the racetrack shares space and a computer with the DigiGait, thus the racetrack and DigiGait cannot be used concurrently.

### 6. Monitoring

During the experiment mice are monitored for signs of discomfort and/or distress. Mice will be observed throughout the procedure and 15 minutes after their return to home cage.

### 7. References

<http://www.colinst.com/products/acceleration-velocity-race-track>