



Standard Operating Procedure Title: **Appendix: Open Field**  
Doc Number: 10\_001A  
Rev No: 0  
Date Issued: 01/06/04

## Appendix: Open Field

### Measurements and analysis:

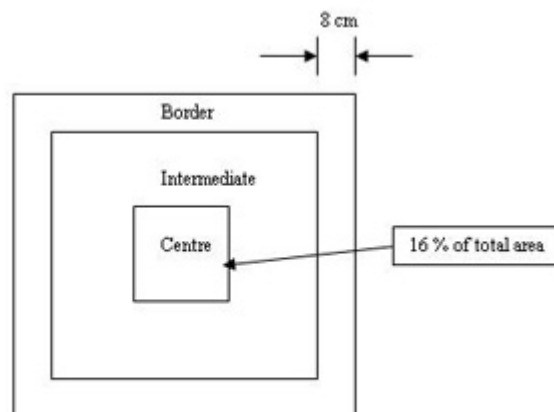
**Zones:** The defined 'border' of the arena should be 8 cm wide, independent of the size of the arena.

**Time bins:** In 3 minute bins and a total testing time of 30 minutes.

**Parameters:** Total distance travelled in arena. Average speed in arena (speed has to be calibrated carefully e.g. minimal distance moved in Ethovision).

Count the number of rearings if possible and furthermore differentiate between on wall- and off wall-rearings if possible. Duration of immobility, (time plot over 30 minutes); the time spent, distance travelled and average speed in the border zone; distance travelled and average speed in the centre (remaining) zone; and the number of visits to the centre.

*Research centres using a video-tracking system and a large arena might also want to define an additional explicit zone should be approximately 16 % of the total area. The remaining area between border and centre is then the "intermediate" zone. Additional parameters to analyse are time spent, distance travelled and average speed in the centre. This could allow for phenotypic differentiation, because in some strains or mutants differences might only occur in the intermediate zone.*



Example of open field arena for extended analysis