

24 hour home cage activity and social behavior monitoring

Just put animal inside of the cage!!

Available to measure amount of activity/social behavior



Special cages designed to house up to four subjects are utilized in this test.

Each cage is equipped with a CCD camera placed over-head and captures images.

To reduce any interruptions during image capture, both water bottle and food box are fixed on the sides of the cage.

When only a single subject is housed within the cage, the software can measure the subject's distance traveled.

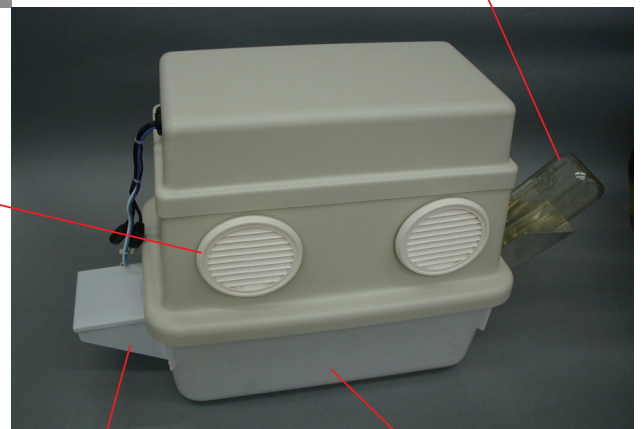
When multiple subjects are housed in the cage, the software measures the amount of activity of whole subjects. Furthermore, the software performs particle analysis to analyze whether the subjects come in contact with each other during measurement. If you have any concerns in the data, you can review saved image file.

Water bottle (Autoclavable)



Lid of cage with vent (NOT Autoclavable)

Cage top: CCD Camera, White & IR LED unit (NOT Autoclavable)



Food box (Autoclavable)

Cage (NOT Autoclavable)



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★ Please understand that appearance & specification of this product may be changed for improvement without notice.

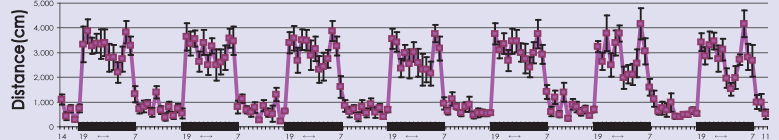
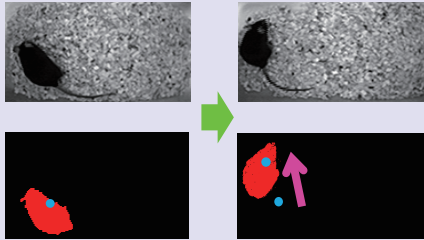
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Algorithm



for Single subject

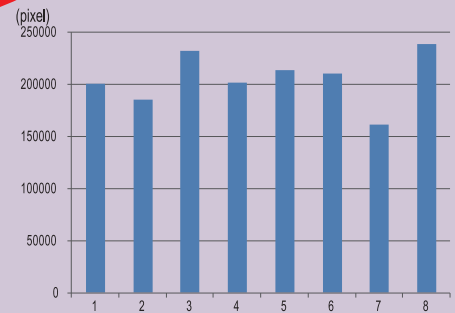
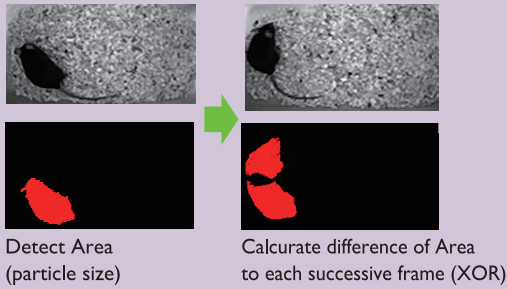
The way of calculate Activity: cm



Activity: cm
Activity: pixel

You can get data easily!

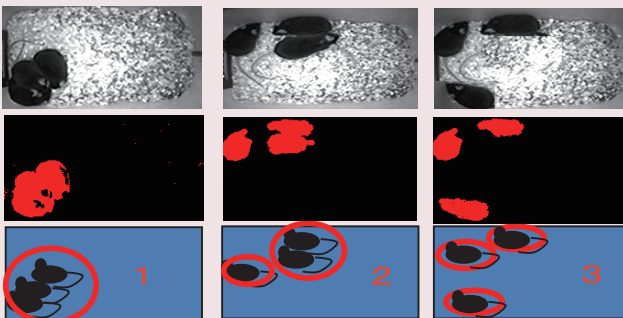
The way of calculate Activity: pixel



Activity: pixel

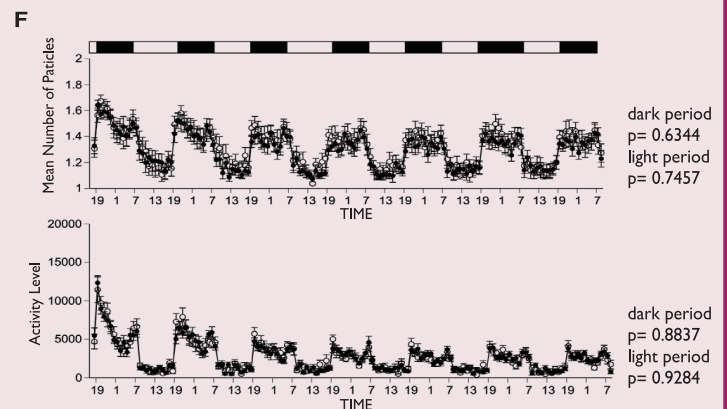
Social behavior: number of particle

The way of calculate Social behavior



It shows how the subject contact by number of particle.

Social Interaction Test in Home Cage



Takao K, Tanda K, Nakamura K, Kasahara J, Miyakawa T, et al. (2010) Comprehensive Behavioral Analysis of Calcium/Calmodulin-Dependent Protein Kinase IV Knockout Mice Reference: *PLoS ONE* 5(3): e9460

○ Controls (n=17)
● Mutants (n=19)

for Multiple subjects

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