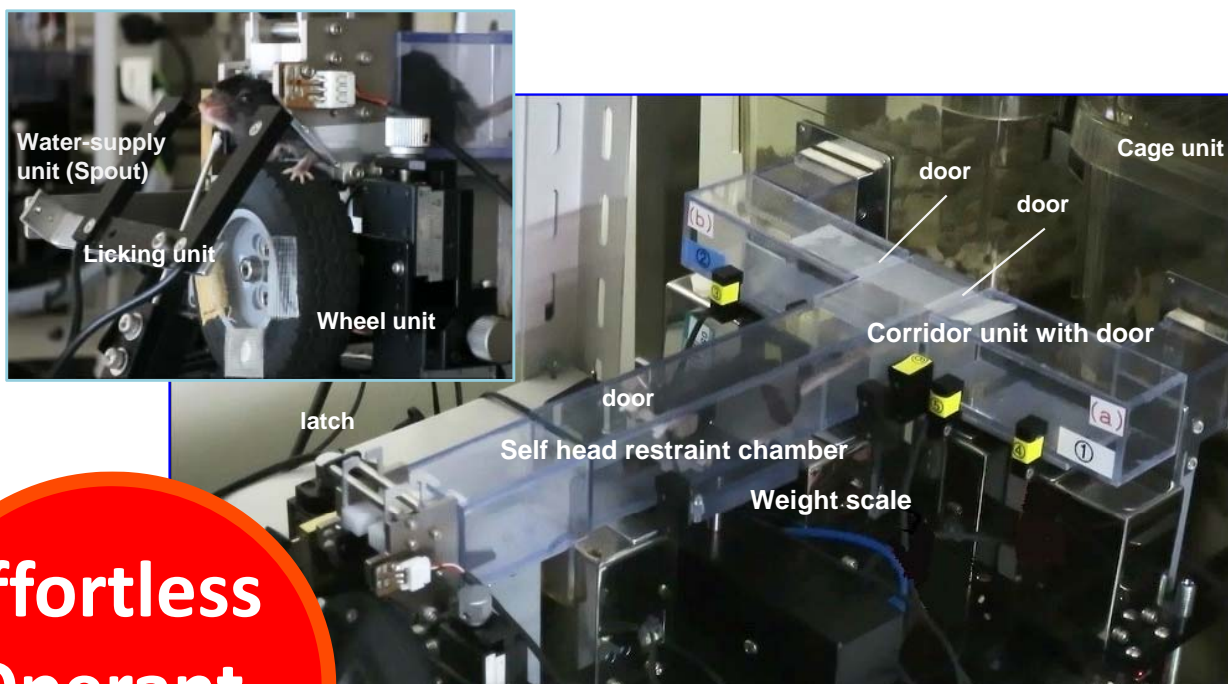


Self head-restraining platform for mouse behavioral training



**Effortless
Operant
Training**

This system is automated platform with voluntary head-restraint system for mouse operant training, which is supervised by Dr. Andrea Benucci (Laboratory for Neural Circuit and Behavior, RIKEN Brain Science Institute, Japan).

Subject animals learn operant tasks with stress-free under voluntary self head-fixation. This platform will contribute automated high-throughput data collection with physiological device.

A scale positioned in the middle of the central tube is used for automated weight measurements to check health condition.

Reference

Aoki, R., Tsubota, T., Goya, Y., Benucci, A. (2017)
An automated platform for high-throughput mouse behavior and physiology with voluntary head-fixation.

Nature Comms., 8: 1196

RIKEN-sponsored patent JP2016-129406



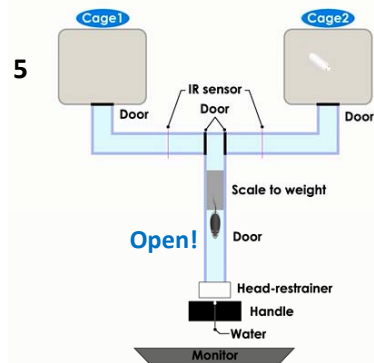
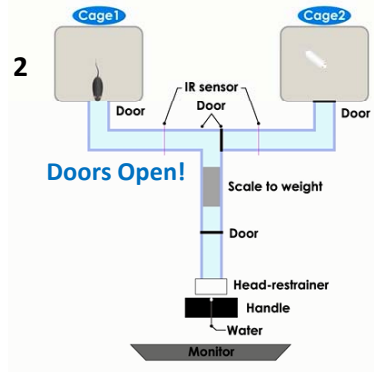
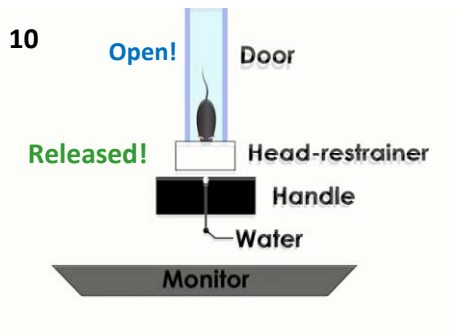
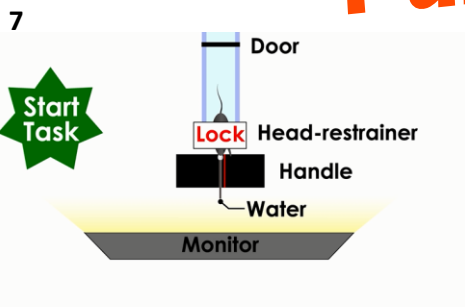
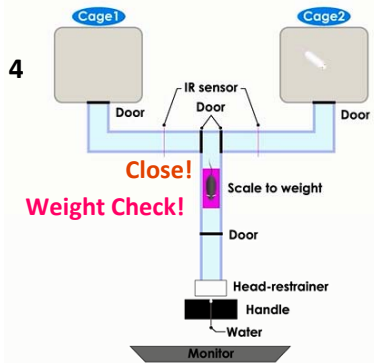
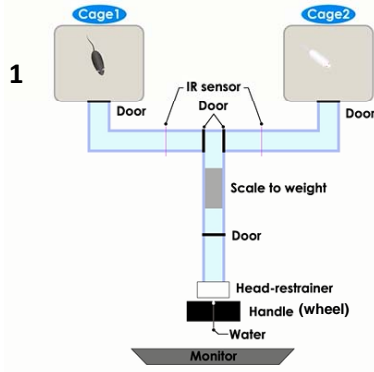
Components (dual cage)

Self head restraint chamber
Stage, Automatic doors, Photo beam sensors, Steering wheel with electric rotary encoder, Spout tube with licking sensor, Automatic self head-restraint latch
Weight scale unit
*When you do not need to weight, this unit is not required.
Water supply unit with controller
Corridor unit with door
※required for dual cage task Corridor between one Self head restraint chamber and two cage units
Interface for corridor unit
※required for dual cage task
Interface
Input signals (Steering wheel signal, Photo-beam, Licking sensor, Head plate latch, Weight scale unit) Output signals (Doors, Head plate latch catch & release) Control water supply unit
Operant session control software
for dual cage task *When you create by yourself, you do not need to buy it.
Habituation water supply unit
Tower computer with PCIe6353 board

※ Single cage system is also available.

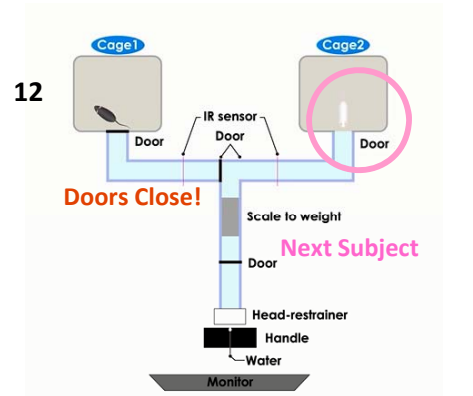
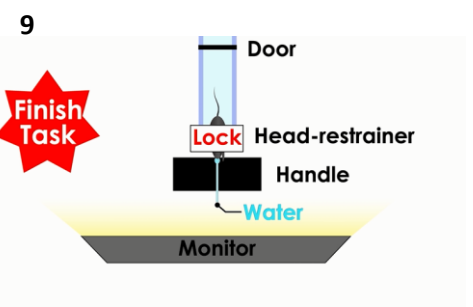
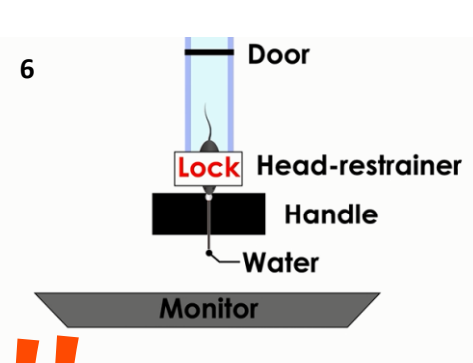
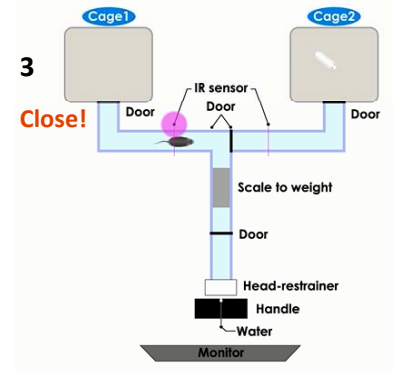
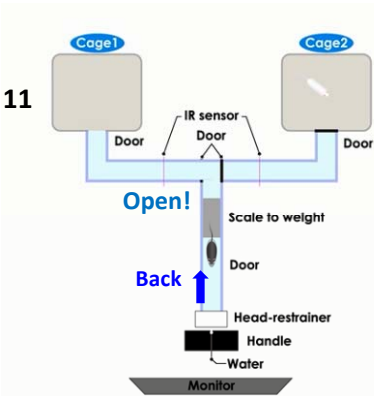
Paradigm of Training

Given access twice a day,
with a 4.5-6 h interval



8

Fixed duration 20-30 min.
Achieved more than
100 trials per access



Full Automatic!!

<Manufacturer>

O' HARA & CO., LTD.

4-28-16 Ekoda, Nakano-ku, Tokyo 165-0022, JAPAN

TEL 81-3-3389-2451

FAX 81-3-3389-2453

Email: info@ohara-time.co.jp

http://www.ohara-time.co.jp

