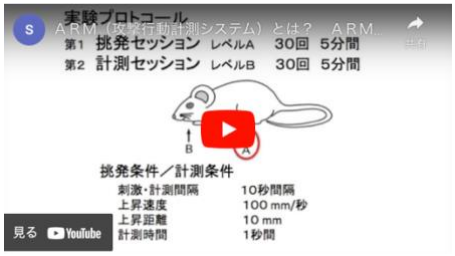
About Aggressive Behavior Measurement System, model ARM-Ⅱ

The new ARM-II is manufactured by Express AP (Representative: Osamu Murakami) and is scheduled to be available for sale from BioresearchCenter, Inc. in November 2023. While its performance is nearly identical to the previous model ARM-001（Muromachi Kikai Co. Ltd.）, cost-saving efforts in manufacturing have paid off, and it will be released at a price lower than 70% of the older machine.

ARM-II (stand-alone type) experiments will be conducted by connecting a computer to the ARM-II unit and using the provided software. Data during the tests will be displayed on the screen as graphs and measurements after each trial, allowing researchers to review the data for each session (30 trials per session). All experimental data will be automatically saved, and if necessary, you can browse all of it after the session ends. Additionally, by exporting the measurements to a CSV file, you can perform data organization and evaluation using spreadsheet software such as Excel.

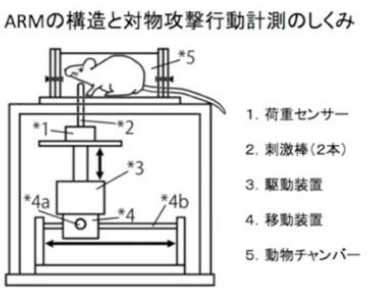
ARM-II also offers a system controlled by the ADInstruments' Data Acquisition and Analysis System, PowerLab (ARM-II for PowerLab). The operation is essentially the same as with ARM-II stand-alone type, but in this case, control, data recording, and data analysis are performed using PowerLab. For those who already have a PowerLab system with digital I/O capabilities and prefer to perform data processing within PowerLab, we recommend ARM-II for PowerLab. Since ARM-II experiments need to be conducted in an animal housing room, we recommend the stand-alone type of ARM-II for users who cannot bring PowerLab into the animal housing room for various reasons. (Please inquire with ExpResAP（http://expresap.com）for details such as pricing, delivery schedules, and other specifics.) https://product.brck.co.jp/maker/e/expresap/arm-2

The system configuration of ARM-II is almost identical to the previous model, the Muromachi's ARM-001, so please refer to the Muromaachi's ARM explanation video. Although the video was created for graduate students, it is also available for researchers. In addition to the three types of chambers featured in the video, ARM-II provides chambers specifically designed for small mice weighing around 20 grams." (Please watch the video below featured in the Japanese version, with English subtitles enabled.)

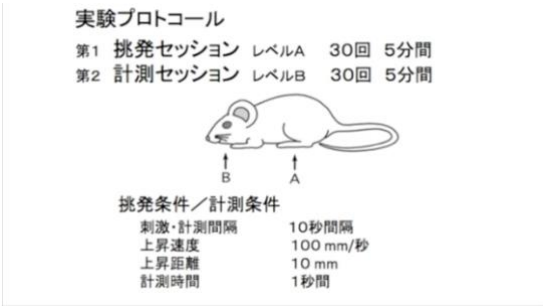


Aggressive Behavior Measurement System (ARM-001)
Manufactured by Muromachi Kikai Co. Ltd.,
Production and sales have been discontinued.

The ARM-II animal chambers come in three varieties. Left, for mice weighing around 30g: Middle, for mice weighing around 40g: Right, for mice weighing around 50g. In addition, chambers for mice weighing around 20g are also available.



The structure of the ABM:
1. Load sensor
2. Stimulus rods (2 units)
3. Drive mechanism
4. Movable mechanism
5. Animal chamber



Experimental protocol

1st: Provocation session-Level A, 30 times, 5 min.

2nd: Measurement session-Level B. 30 times, 5 min.

The provocation and measurement conditions are the same.
The stimulus rods rise at 10-second intervals,
with a rising speed of 100 mm/s,
and a distance of 10 mm from the floor,
measurement time is 1 second.