ANIMA✦LAB

Animalab offer fully portfolio of stereotaxic instruments from RWD and Neurostar companies. Depending on customer needs, we install precise robot and automatic stereotaxy working with accurace to 1 μm. When less accuracy is needed we offer digital and manual, standard models. Using portable and rotational stereotaxic devices, client may combine more comfortable and effective procedure workflow. All models are available with single and double arms, in configuration left or right and also for larger species up to 30 kg.

Robot stereotaxic solutions

Accuracy to 1 μm

Neurostar is the creator and sole manufacturer of stereotaxic robots. When using stereotaxic robots, the user focuses on the experiment, without the need for manual manipulation of stereotaxy. Integration with the brain atlas and intuitive movement control enable high accuracy, high throughput of electrophysiological tests, and stereotactic injections.

NEUROSTAR
NEUROSOLUTIONS FOR THE FUTURE

Fully stereotaxy set-up

- Drill and injection robot
- Drill robot
- Microinjection robot
- Glass capillary nanoinjector

The best features

- Ultra precise 1 μm
- Integrated brain atlas
- Avoiding human errors & time saving
- Corrects for inaccurate alignment
- Computer control with atlas integration probe visualization in the atlas space & Intuitive navigation
- Skull thining & brain-windowing during drilling
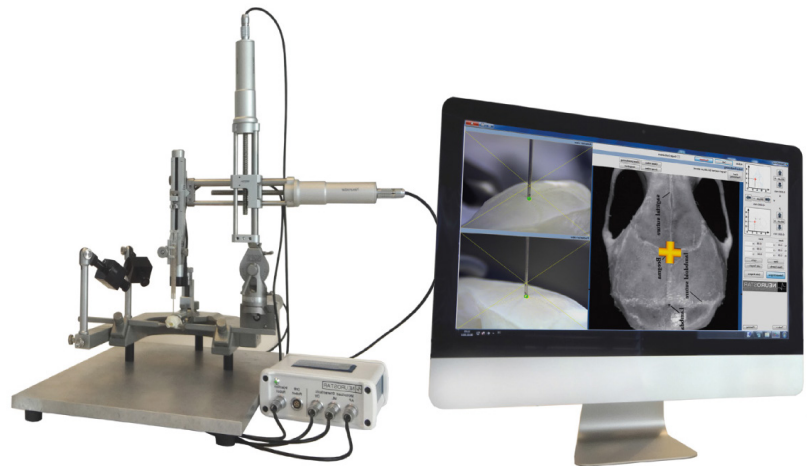
Automated stereotaxic instruments

RWD

Accuracy to 1 μm

The software has built-in brain atlas and display the position and probe trajectory in real time. Movements can be provided by software micro-manipulator and computer keyboard in resolution up to 1 μm.

- High-precision stepping motor drive, displacement resolution 1 μm
- Built-in rodent brain atlas with three automatic programs: skull windowing, tissue removal & multi-point injection
- Optional Tissue Removal Kit used before implanting lenses

Digital stereotaxic instruments

Accuracy to 10 μm

More precise than manual stereotaxy. Displacement sensors connected to digital display module set arms in three dimensions: more accurately and reducing the tedious steps of manual reading.

Rotational digital stereotaxic

Rotational models allow adjusting of skull level, quickly and accurately aligning sagittal suture. The time of skull adjustment is greatly shortened without repeated fixation.

Additional accessories

- Rotation adaptor with crossover point of the Centering Height Gauge
- 40X Centering Magnifier
- Alignment Indicator for accuarate adjustment in 3 dimensional space
- Adjustable operating platform

Manual stereotaxic instruments

Accuracy to 100 μm

Classical U-shapedframe design. Dedicated to different types of small animals by replacing the appropriate adaptors and ear bars.
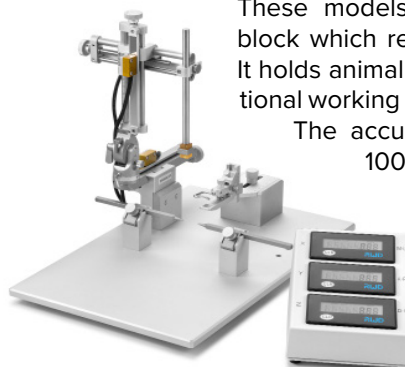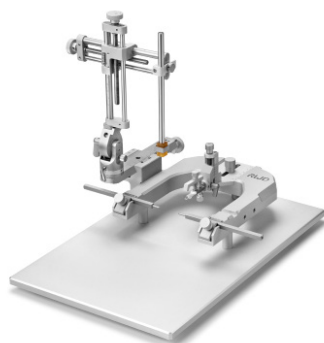

Portable stereotaxy models

These models are designed with adapter block which replaces the standard U-frame. It holds animal accurately, thus offering additional working space for surgical instruments. The accuracy of non-digital models is 100 μm, and the accuracy of digital models is 10 μm.

Impactor

Very effective tool to evaluate traumatic brain injury mechanisms. Controlled by pneumatic and electric device provides increased accuracy and reproducibility in brain injury modeling. The parameters such as impact depth, velocity and dwell time are precisely controlled to ensure that the damage level is accurate.
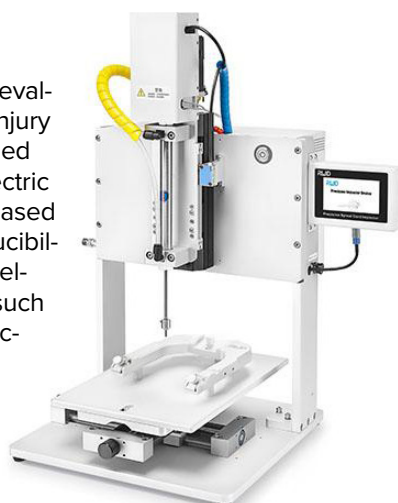
Tissue Removal Kit

Reduction of tissue damage during brain implantation

The kit is used for tissue aspiration before implanting lens in calcium imaging experiments. The kit includes a vacuum pump, reservoir, holder, needle connector, needle and tubing. Used together with the stereotaxic instrument ensures, that the wound end surface is smooth.