



The Robot Award

First Prize

(Nursing Care, Medical Care, and Construction Category)

RoboRack®, an automatic breeding system for research mice

Global Linx Technology Co., Ltd.

Gentle on people and mice alike,
proposing a new breeding method



■What is RoboRack® ?

RoboRack® is the world's first robot that automatically breeds mice used for medical and other research experiments.

To outline what is involved in raising mice:

1. Changing bedding (Replacing old cages with new, and providing new bedding)
2. Feeding (Giving food to the mice)
3. Watering (Giving water to the mice)

And more. But until now, this has all been done by hand.

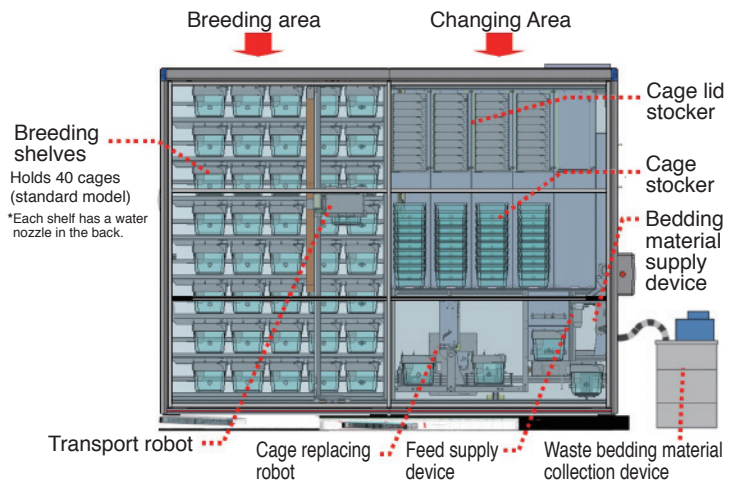
Research for the RoboRack® began seven years ago. It does all these things without the need for human hands.

■Current situation and issues with animal testing

Animal testing is necessary for developing medical technology, pharmaceuticals, agricultural chemicals, chemical products, cosmetics, food additives and more. It is used to study the safety, efficacy, and danger of all kinds of substances. In particular, in the fields of medicine and pharmacology, animal testing is very important, as it is an essential step before clinical experiments (clinical trials) can be held. In recent years, animal testing has been used in the development of new drugs for the treatment of cancer and other incurable diseases, as well as in the development of regenerative medical technology such as IPS cells. Its importance is being increasingly recognized as it has played a valuable role in fighting COVID-19, which is now raging worldwide.

Meanwhile, in recent years there has been a strong demand for appropriate animal experiments from the perspective of animal welfare, and research institutions are taking the utmost care to avoid causing unnecessary pain and stress to laboratory animals. However, in reality, it is very difficult to take practical measures such as maintaining breeding standards.

In addition, due to the spread of COVID-19 that has been rampant since last year, access to experimental facilities is limited, making it extremely difficult to secure staff and work hours at sites that are already facing a labor shortage.



■Thanks to automation with RoboRack®

Until now, it has been considered difficult to automate the breeding of laboratory mice, and breeding has mainly been done manually. The RoboRack® has automated this breeding work, which not only reduces the workload of animal caretakers, but it also avoids risk and improves the accuracy and reproducibility of experiments by limiting the contact between humans and animals. The company believes that this will contribute to the development of medical science in Japan and around the world by making it possible to conduct experiments that meet a wider range of requirements.

The RoboRack® also provides excellent care for laboratory mice. Thorough attention to detail means that noise has been limited in order to prevent unnecessary stress to the mice. To watch a RoboRack® in action, see the company's website for a video:

<http://www.glinx.co.jp/products02/index.html>

It goes without saying that the development of medical research will continue to play an important role in ensuring a healthy life for mankind. Global Linx Technologies are convinced that RoboRack® will revolutionize the medical research industry.

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