

Extra Edition 2022

HYTEM NEWS

In this Extra Edition, introducing IPPS (International Poultry & Pig Show), held at Port Messe in Nagoya on 27 through 29 last April.

□ Exhibition

HYTEM Booth



Cage unit exhibition.



Rats • AI Free system by Manure belt Conveyor & Egg Conveyor Shutter are introduced by the movie with actual operation of Egg Conveyor Shutter.

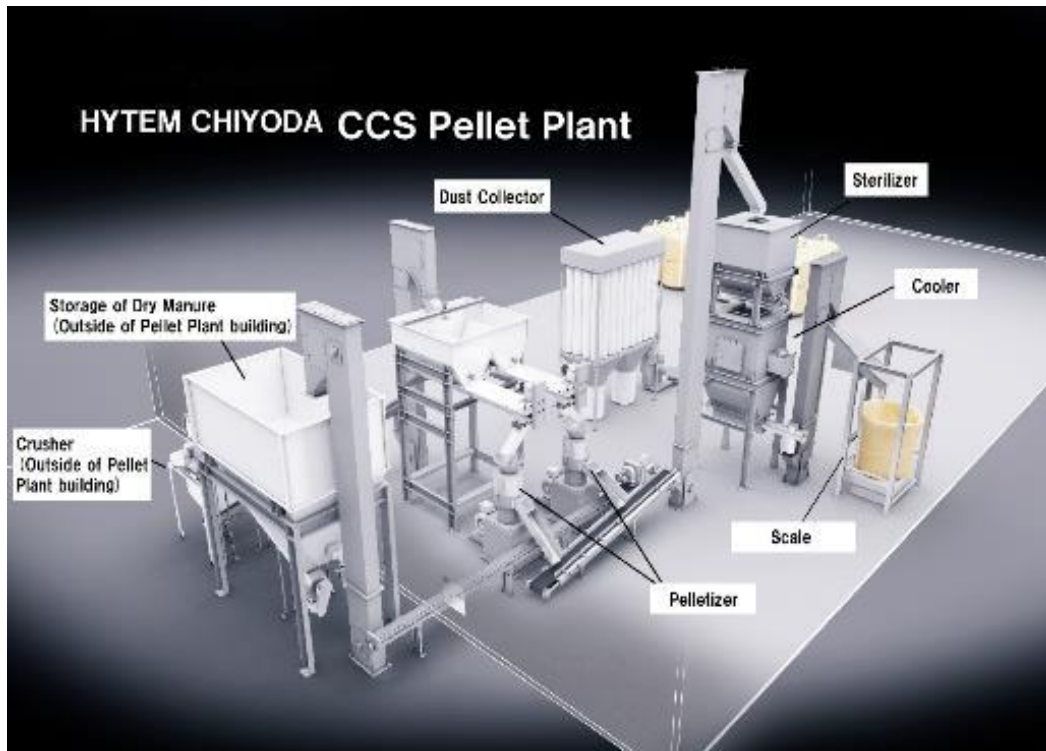


Plate Dryer and Soilborn exhibition with HYTEM CHIYODA CCS Pellet Plant introduction.



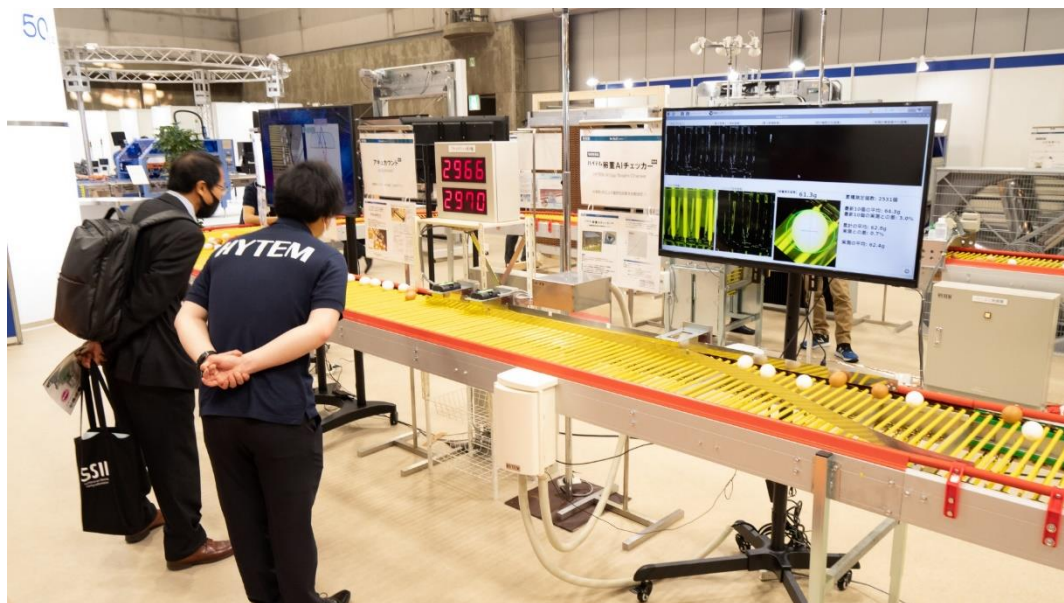
Soilborn





3 newly developed products, Egg Weight, Body Weight and Layer Checkers shown by following catalogs were exhibited.

The exhibition of Egg Weight Checker by actual operation.



The left side of this picture is demonstrating the accuracy of HYTEM egg counter, ACCUCOUNT.

HYTEM Egg Weight AI Checker

— Egg Weight Measuring System by High Precision Image Processing —



Features

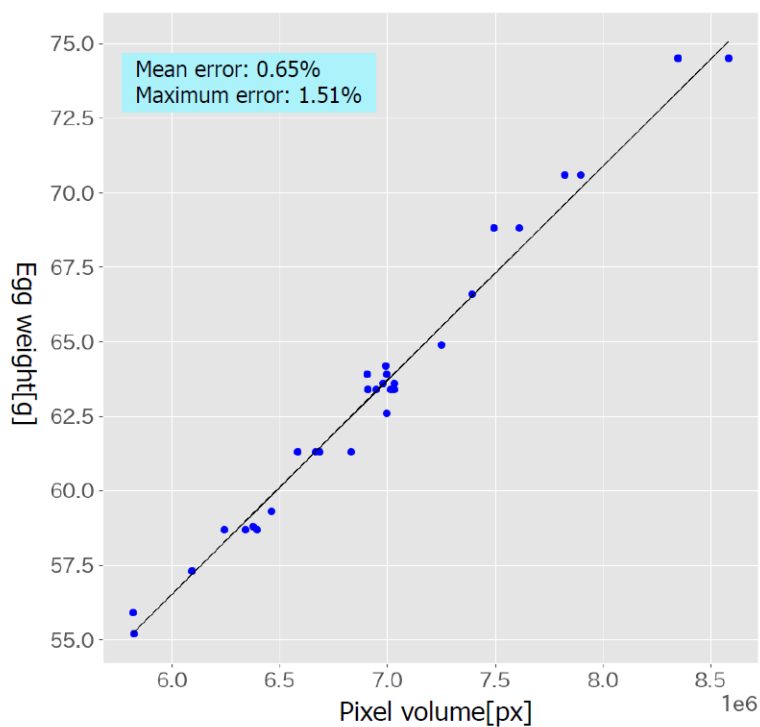
The egg weight measuring system has been developed through the industry-academia joint research with Aichi Institute of Technology. It uses the technique for processing still image of eggs that was developed in a research project of Aichi Institute of Technology and Aichi Agricultural Research.

- 1 High precision image processing with AI automatically measures** weight of eggs being transported on egg conveyors.
- 2** It is possible to measure the weight of eggs by flock even ***if eggs are collected from multiple houses.***
- 3 Egg weight distribution data of each flock can be collected in daily basis,** which has been not possible by existing technology.
- 4** Daily egg weight information can establish better feed management, ***contributing to maximizing Egg Farm Profit No.3*** generated by Egg Farm Management

Measuring System

Egg weight is automatically calculated with the preset specific gravity (normally 1.10) by measuring the egg volume using AI-based precision image processing with a mean error within 1% and the maximum error of 1.5%.

* The egg weight with a higher accuracy will be given by periodically measuring the weight of a certain number of actual eggs.



Examples of the accuracy

The egg weight is calculated by the gravity 1.10

Specifications

Power: Single phase 100-220V 35W

Operating power: DC

Components: Camera unit Camera, Lights

Outer dimensions: Width 200 Depth 200 Height 305

Operation unit Edge PC, Power unit

Outer dimensions: Width 200 Depth 100 Height 300

Operation units need to be set up within five meters distance.

HYTEM Mechanical and Electrical Professionals who know Poultry
HYTEM CO., LTD.

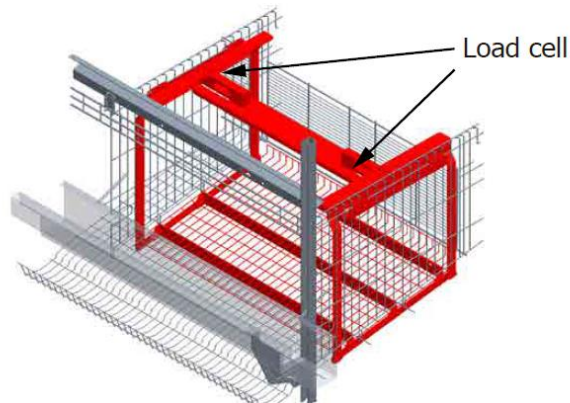
2-10 Techno Plaza, Kakamigahara, Gifu 509-0109, JAPAN
Phone: 81-58-385-0505 Fax: 81-58-385-1230 E-mail: info@hytem.com
Factory: Hytem Equipment Manufacturing Co., Ltd. Tianjin China

www.hytem.com

Please be advised that the specifications in the catalog are subject to change without notice.

HYTEM Bodyweight Checker Patented

Bodyweight Checker automatically measures weight of birds after lights-out, using its load cells assembled in cages.



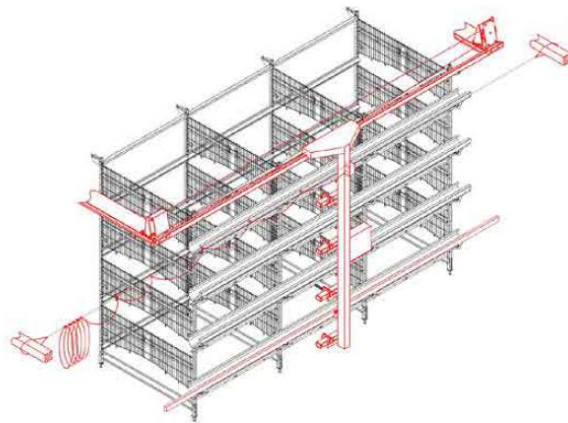
Features

- 1 Measuring a total bodyweight of birds in a cage gives an averaged bodyweight of a bird.
- 2 Automated measuring reduces labor or workers.
- 3 Daily bodyweight information enhances better flock management.
- 4 The measurement data can be gathered in PC for collective management.
- 5 It is possible to set up Bodyweight Checker in any cages in one house.
- 6 The size of cages is not a matter for the HYTEM Cage Systems.

HYTEM Layer AI Checker

– Dead Bird Detection System –

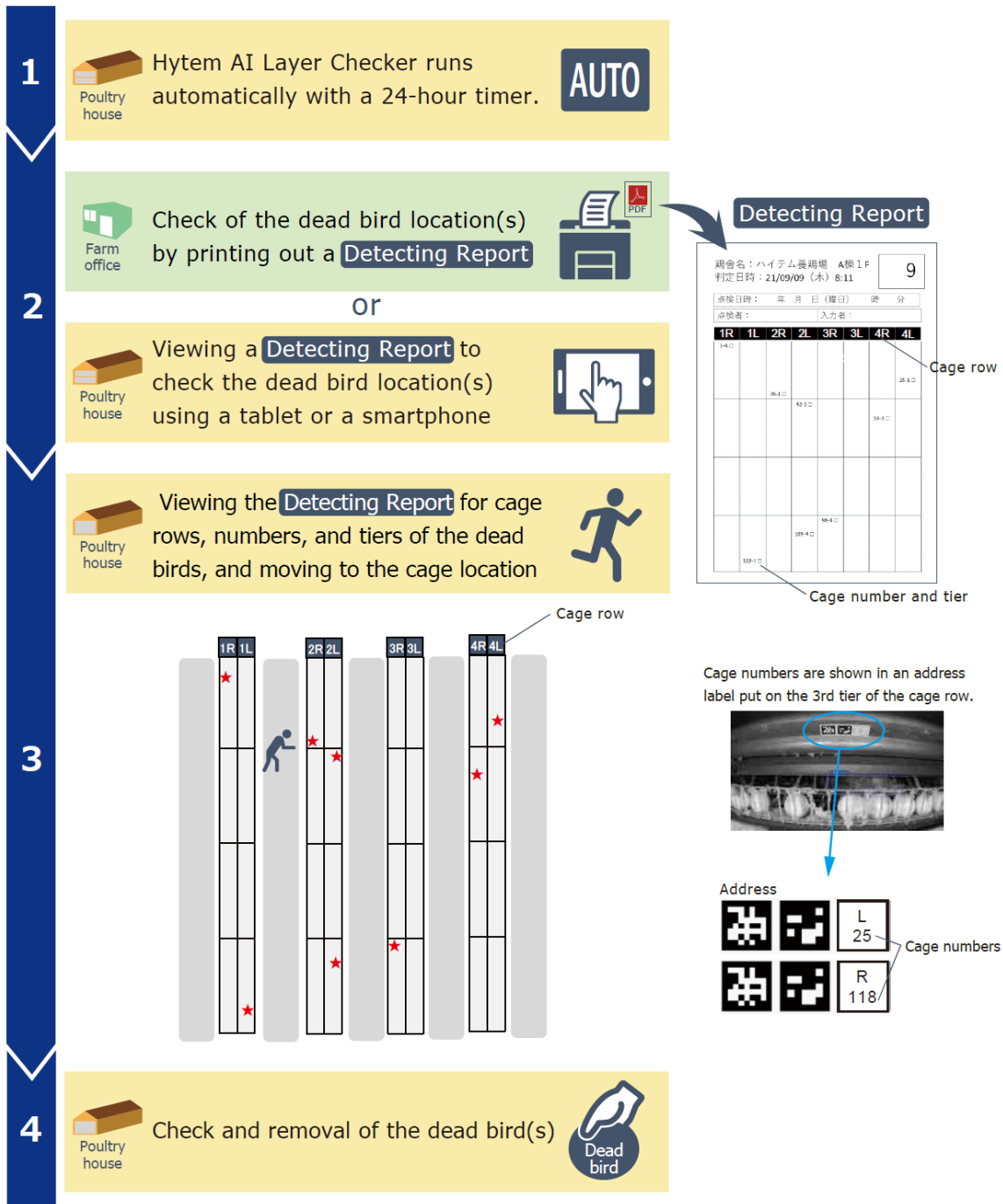
The system informs worker(s) of locations of dead birds through analyzing images inside cages. It is possible by combining the image recognition technology and the machine learning technology that was codeveloped by NEC Solution Innovators and Marui Coop **Patented**



Features

- 1 An approximately 100% detection ratio of dead birds that obstructs egg collection.
- 2 More than 99%, both of white leghorns and brown dead birds can be detected.
- 3 Locations of dead birds are displayed on PC and can be printed out. Smartphone display is also possible.
- 4 Working time to remove dead birds is greatly reduced, which was demonstrated about 1/5 in an experiment.
- 5 Hytem's traveling system of level feeders enhances the detection ratio, preventing image blurring.
- 6 There is no risk of low battery thanks to its cable power supply.
- 7 Multiple checks are possible in a day, resulted in an increased detection ratio.

Work Model



Codeveloped by:

NEC NEC Solution Innovators, Ltd.

Marui Coop

Manufacturer:

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□ 50th Anniversary Gratitude Party with Hytem Customers



On 27th after the exhibition, 50th Anniversary Gratitude Party with Hytem Customers was held at an event hall of Port Messe, where 50 years Hytem brief history by Power Point, staffs and coming Hytem structure from 2026 were introduced by Yasuda, CEO. He announced, he would work in 80's, as far as his health fine, and Kotaro Yasuda, Senior Managing Director would be CEO working with Hytem staffs in the next generation. And he referred Hytem basic policy to develop EFA (Egg Farm Automation) in Asia where 60% world population is, presenting HYTEM EFA feature "Profit No.2".

