

SOLUTIONS FOR SMART CAGES







DATA COLLECTION AND EQUIPMENT CONNECTION: DIGILAB SET OF SOLUTIONS OFFERS A FUTURISTIC DIGITAL INFRASTRUCTURE BASED ON AN INNOVATIVE "DATA FUSION" PERSPECTIVE

TECNIPLAST IS THE IDEAL PARTNER FOR THE CARE OF YOUR FACILITY AND FOR THE OPTIMIZATION OF YOUR DAILY ACTIVITIES.

NOWADAYS, WHEN EVERYTHING IS LITERALLY AT FINGERTIPS, OUR DIGILAB PORTFOLIO BRINGS THE MOST INNOVATIVE SOLUTIONS FOR YOUR VIVARIUM IN TERMS OF DATA MANAGEMENT AND OPERATOR INTERACTION SYSTEMS, MAKING YOUR IVC CAGES SMART LIKE NEVER BEFORE. DIGILAB PORTFOLIO IS NOT MERELY A SET OF PRODUCTS, BUT A PROPER INFRASTUCTURE ABLE TO COLLECT AND ANALYZE THE DIGITAL INFORMATION OF ALL YOUR TECNIPLAST/IWT EQUIPMENT.

DVCTM AND GATEWAY HAVE BEEN DEVELOPED BY OUR IN-HOUSE TEAM OF DESIGNERS AND ENGINEERS TO IMPROVE THE QUALITY AND THE MANAGEMENT OF YOUR DAILY WORKFLOW, REDUCING THE POSSIBILITY OF ERRORS, OPTIMIZING EFFICIENCY AND MAXIMIZING SAFETY.



LEAK DETECTION SYSTEM



- Early detection of automatic watering system failures
 - Can be also added as a standalone module on previous version of GM racks

BEDDING CONDITION MODULE



- Maps the whole cage floor area without coming into contact with the cage, detecting changes in moisture content within the bedding
 - Suggests when cages need to be cleaned out based on the parameters set during the "learning phase" when the equipment is installed
 - Standardization of when cages are cleaned out based on similar conditions within each cage
- Less stressed animals, less cage changes, less bedding used and lower number of cage wash and autoclave cycles required
 - Fully customizable to facility requirements and bedding type

FOOD AND WATER MODULE

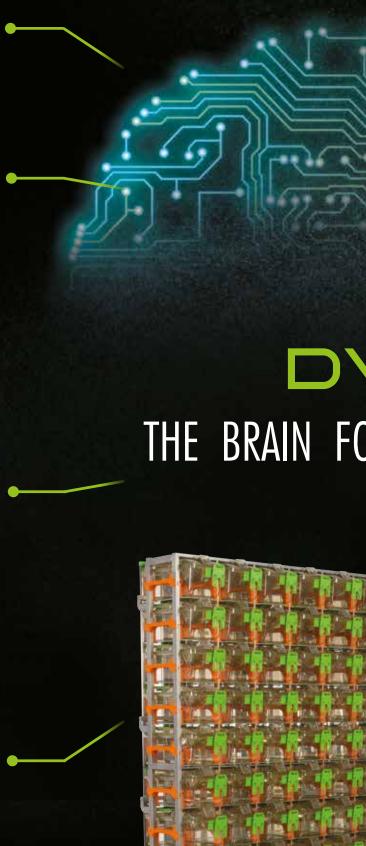


- Detects the presence of a water bottle, ensures that it is sat correctly within the cage and assures there is sufficient food and water to last until the following day
 - Uses a series of infra-red LEDs
 - Higher standard of welfare for the animals
 - Enhances the daily checks performed by the technician as the system is able to highlight cages that need to have food and water replenished

ANIMAL ACTIVITY MODULE



- Monitors the overall animal activity in the cage
- Compares data from the previous day/days and similar cages
- Alerts the technician that further checks may be required by illuminating an LED on the new cage runners
 - Makes the daily health check more effective
- Enhances the welfare of the animals by identifying that an animal may be ill and immobile, identify if pups have been born or that an animal has died







IDENTIFICATION MODULE

- Multicoloured LED mounted on the cage runners
- Used for a variety of purposes to give a visual indicator of a cage: to pinpoint a cage location for a member of the research team, that a cage needs to be cleaned out, that needs further observation or that it is not correctly seated on the rack
- Enhances the welfare of the animals and reduces the time spent looking for a specific cage within the animal room



INVENTORY MODULE

- Consists of an RFId tag on the microbiological filter of the cage and an RFId reader into the base plate
- "Real-time" cage census, giving occupancy and location of every cage within the facility
- The data from this module can be incorporated into existing animal management software, giving easier cage management and billing information
- This module can also be incorporated as a standalone module onto existing GM500 racks



DVC PLANNER

- Assists with the management of the whole cage process of the animal facility
- Assigns cage cleaning tasks to each technician based on cage wash and autoclave throughput
- Re-assigns workloads due to staff sickness
- Identifies priority workloads in an emergency/breakdown
- Allocates work based on health and barrier restrictions

GATEWAY





ONE 2 ONE SETTINGS PAGE



Today portable devices and remote control are widely used in several applications, everyone likes to deal with these devices and the advantages coming from their use are countless. Gateway is designed to be installed on Air Handling Units, compatible with Smart Flow, Easy Flow, Sky Flow, Touch Slim Plus, ISOcage N and ISO cage P, and enables two functions:







GUARDIAN HOME PAGE: SET UP CONFIGURATIONS TO BE APPLIED IN ALL THE UNITS IN A ROOM/FLOOR

ONE 2 ONE

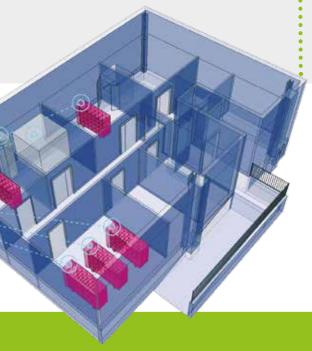
control the Air Handling Unit via any portable device

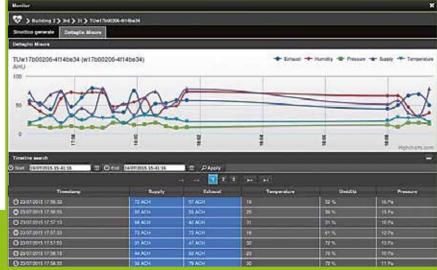
- Only one portable device can be used to control each and every Air Handling Unit in the facility
- Full compatibility: the system works with any operative system or device

GUARDIAN

complete remote control of all blowers in the facility

- Monitors, checks and controls all machines from the office
- Forwards alarm notifications, according to the preferences and timing: maximum safety
- Exports daily data
- Tracks and locates any Air Handling Unit preventing any possible mistaken set configuration: improved control and safety
- Creates data report for each or several machines, choosing the parameters to export: enhanced data monitoring

















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