

Advanced Remanufacturing and Technology Centre

ARTC

MODULAR AUTONOMOUS LAB

CONTACT

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Modular Autonomous

Transforming labs with a pioneering spirit for scientific excellence

In the ever-changing landscape, labs are under pressure to increase throughput, reduce errors and improve productivity. The Modular Autonomous Lab is poised to re-define brownfield labs operation. With seamless integration and state-of-the-art technology, the solution empower businesses to envision a future where lab processes are automated with efficiency, precision and minimal human touch-points.

The Modular Autonomous Lab will support businesses in:

Establish a seamlessly connected and automated lab to encourage industry-wide adoption and streamline test-bed processes.



Optimise and automate the utilisation of current assets and instruments in a brownfield lab operation.



Diminish manual repetitive tasks, human errors, operational costs, lab footprint, contamination, and the need for human intervention.

3 steps to a Modular Autonomous Lab



equipment.

labor.



Enhance data integrity, precision, lab safety, throughput, efficiency, quality, operations, with real-time inventory management, tracking, and traceability.



Realise significant 37% time savings and a 35% reduction in manpower, driving increased efficiency and productivity.

Robotisation: Facilitates task automation for quicker, more precise processes, minimising the need for manual





Smart Scheduling: Strategises task planning to optimise time and resource utilisation.

Solutions



Colony Counting and Agar Streaking

- Vision identification and counting of colony on agar
- Agar streaking of various streak patterns and container types
- Picking of colony from existing agar culture or new samples



Lab Digitalisation

- SiLA Standardisation Platform featuring lab IT/OT integration for enhanced interoperability in brownfield lab devices
- Modular design based on a lab standardisation platform to increase adaptability of old lab equipment



Smart Scheduling

- Automated & real-time lab resource planning
 & dynamic scheduling
- Lab dashboards for overall execution monitoring and control
- Microservice architecture enables quick and simple deployment