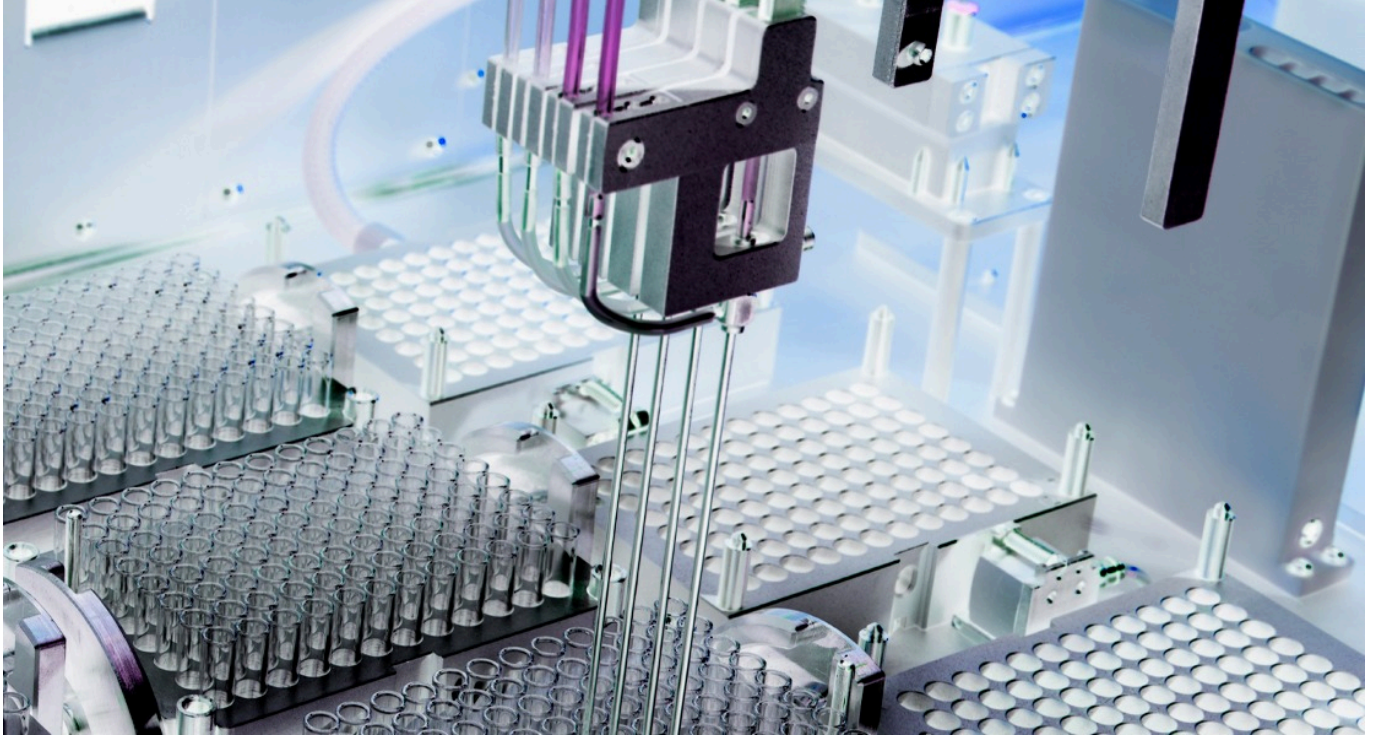


**TECH OFFER**

## Automated Liquid Handling Robot Solutions For Lab Automation



### KEY INFORMATION

**TECHNOLOGY CATEGORY:**

**Life Sciences** - Industrial Biotech Methods & Processes

**Manufacturing** - Assembly, Automation & Robotics

**Healthcare** - Pharmaceuticals & Therapeutics

**Healthcare** - Diagnostics

**TECHNOLOGY READINESS LEVEL (TRL):** **TRL9**

**COUNTRY:** **SOUTH KOREA**

**ID NUMBER:** **TO175131**

### OVERVIEW

The company offers a suite of innovative automated liquid handling systems, hardware and software for process automation designed to enhance precision, efficiency, and scalability in biological research. The industry currently faces significant challenges with semi or full automation of laboratory equipment, including high costs, limited flexibility, and manual errors. These bottlenecks hinder the efficiency and reliability of complex laboratory processes.

The company's technology addresses these issues with a range of flagship products that provide cutting-edge automation for tasks such as genomic and proteomic analysis, drug discovery, and clinical diagnostics. The systems feature modular assembly, allowing for easy customization and scalability to meet the evolving needs of life science laboratories. This flexibility ensures that the solutions can adapt to various experimental setups and requirements.

One of the unique value proposition of the company's technology is its ability to significantly reduce costs up to 90% compared to traditional automation systems. This cost-effectiveness is achieved through innovative mechanical design, advanced software integration, and efficient hardware utilization. Additionally, the systems boast the largest consumables library in the industry, providing researchers with a wide range of options to support their specific needs.

The company is actively seeking software and OEM partnerships to further enhance its product offerings and expand its market reach. By collaborating with key partners, it aims to continue driving innovation and providing top-tier solutions to the life sciences industry.

## TECHNOLOGY FEATURES & SPECIFICATIONS

The product range includes modular automated liquid handlers, hardware and software engineering that can be customized for a variety of laboratory applications. Key features include:

- **Precision Pipetting:** Capable of handling small volumes with high accuracy.
- **User-Friendly Software:** The software interface allows for easy programming and integration with existing lab protocols without the need for extensive technical knowledge.
- **Scalable Design:** Modular components enable easy expansion and adaptation to changing research needs.
- **Compatibility:** Seamless integration with other laboratory instruments and workflows.

## POTENTIAL APPLICATIONS

- **Industry:** Pharmaceuticals, Biotechnology, Clinical Research, Academic Research.
- **Applications:** High-throughput Screening, Drug Development, Clinical Diagnostics, Production, Quality Control, PCR Preparation, Protein Purification, Nucleic Acid Extraction, Diagnostic Sample Preparation, NGS Library Preparation, Serial Dilution, Cell-based Assay, ELISA, Aliquoting.
- **Products:** Automated liquid handlers, No-code lab automation software, Customizing for OEM/OEM process automation.

## MARKET TRENDS & OPPORTUNITIES

The global market for liquid handling systems is expected to reach \$3.6 billion by 2027, driven by increasing demand for automation in the life sciences sector. Significant growth opportunities exist in North America, Europe, and Asia, with a focus on applications in drug discovery and clinical diagnostics.

## UNIQUE VALUE PROPOSITION

The lab automation solutions provide unmatched precision, reliability, and flexibility at a competitive price. Lab automation solution minimizes human error, increases experimental reproducibility, and supports scalable research workflows, making it ideal for laboratories looking to enhance their operational efficiency and data integrity.

### Enhanced Precision:

- Reduces manual errors by up to 99%, ensuring reliable and reproducible results.
- Advanced pipetting technology for accurate liquid handling.

#### **Increased Throughput:**

- Automates repetitive tasks, allowing for a 50% increase in sample processing rates.
- Streamlines workflows to reduce manual labor.

#### **Cost Efficiency:**

- Reduces costs by up to 90% compared to traditional automation systems.
- Innovative mechanical design and modular components save an average of \$50,000 per year in operational costs.

#### **Modular Assembly:**

- Allows for easy customization and scalability to meet specific laboratory needs.
- Flexible design that can adapt to various experimental setups and requirements, reducing setup time by 70%.

#### **User-Friendly Software:**

- Advanced software for intuitive operation, reducing training time by 60%.
- Drag-and-drop interface for easy protocol setup and modifications, enabling setup changes in under 5 minutes.

#### **Collaboration:**

- Consultative lab automation system ODM/OEM partnership from ideation, concept design, product validation and product commercialization.
- Ability to provide fully automated solutions including consulting, hardware, software and 3<sup>rd</sup> party integration.