Diamond Technologies was contacted by a biological engineering company to increase traceability within their facility.

The company works with cells and cultures to do everything from enzyme discovery to programming cells to create specific molecules.

Their biological manufacturing process is one of the most advanced forms of manufacturing in the world. This allows them to do everything from cannabis research to reprogramming cells in order to create flavorings that we know and love. As such this customer requires strict inprocess tracking and monitoring of samples and cultures throughout different stages and processes.

The customer specifically wanted to explore solutions for their current system of checking in and checking out samples and microplates from a community cold storage area. They wanted a solution that would easily scale for additional users and additional cold storage as the company grew and expanded.
Diamond Technologies collaborated with the customer to find a solution that would reliably and quickly enter data into their laboratory information management system (LIMS) tracking software in order to accurately and quickly record data without human error. Diamond Technologies solved this issue by utilizing the Skorpio X4 handheld from Datalogic.

With Datalogic industrial use mobile computers from Diamond Technologies, the company was able to scan items in and out of certain processes, track stages of production, and track inventory and samples. Diamond Technologies integrated the Datalogic scanners into the customer’s Wi-Fi infrastructure providing real-time data. Mobile scanners also allowed them to track the users that modified samples in any way by requiring users to first scan their personal badges before making changes to any samples or cultures. This created a real-time method to accurately track production steps and operator culture interaction and monitor for any discrepancies.

In combination with a custom GUI to work in concert with the Skorpio handheld units, Diamond Technologies was able to provide not only a product but a complete full-fledged solution which allowed the bioengineering company to scale without worry, increase reliability and tracking, and increase throughput. The customer has since greatly expanded the system and grown their business.