

CONCEPT Automation is often used in manufacturing to improve efficiency, reduce costs, and improve quality control. In an automated manufacturing process, machines and robots are programmed to perform specific tasks, such as assembly, packaging, or quality control. Automation can be achieved using sensors, computer software, and control systems, which allow machines and robots to work together seamlessly. This can result in increased productivity and accuracy, as well as reduced waste and error rates.

BACKGROUND

The term automation dates back to the 18th century with the invention of automated looms in the textile industry. However, it was not until the mid-20th century that advances in electronics and computing technology enabled the widespread use of automation in manufacturing. The introduction of programmable logic controllers (PLCs) in the 1960s provided greater flexibility and control in manufacturing processes.

REAL WORLD CONNECTIONS

A prime example of automation can be found with-in Costco's state of the art poultry processing plant. During the planning and construction phase, their industry leaders toured multiple European sites looking for the best automation equipment. The end result was a culmination of many individual pieces of equipment from different plants, being ordered and installed in their Fremont, Nebraska facility.

These robots are programmed to work alongside human operators, increasing efficiency and reducing the risk of injury or errors. Additionally, robotic automation helps ensure consistency in product quality and reduces waste.

