Ubisense

# Smart Factory
# Automotive Assembly

Smart Device | **Virtual Station**

## Feature Summary

The use of robots and automated assembly systems is ubiquitous in modern car and truck assembly, yet it can never fully replace the human element of the assembly process. High variability and complexity means information driven decisions must be made, and it is people that build cars, not machines. Giving assembly operators the information they need for task execution on the specific vehicle in front of them is entirely reliant on fast and reliable product identification.

Virtual Station represents a new standard for the rapid assignment and agile relocation of identification-driven processes on the line, thereby freeing up both the resources and the costs associated with legacy identification technologies such as barcode and passive RFID.

## Core Capabilities

- Rapid process assignment and relocation through software-driven identification
- Elimination of the bar code scan and other legacy identification technologies
- Use trigger events from line encoders or PLCs or from a Ubisense precision location sensor network

## RAPID RECONFIGURATION

### The Malleable Production Line

Modern high volume, high variation production is heavily dependent on identifying specific product on the line to drive process, ensuring that the right tools are used, the right parts are fitted and the right tasks are completed. The current generation of identification technologies such as barcode and passive RFID are both costly to deploy and similarly costly to relocate. A change in process or product that is dependent on identification is typically associated with time, cost and production downtime.

With Virtual Station, the addition, relocation and rebalancing of process identification points on the line is completely malleable, free of the costs associated with moving legacy identification technologies. This only becomes possible by removing the dependency on hardware-driven identification, turning assembly line identification points into software driven “virtual zones”. These can be added, relocated and re-assigned to any Ethernet or industrial protocol-driven devices at the click of a button, making the process placement activity rapid with minimal overhead, cost or production downtime.

### Eliminate Fixed Identification Points

The elimination of bar code scans and other legacy identification solutions is achieved by reliably tracking the vehicle as it travels down the line. The real-time location of the vehicle is maintained in a virtual model of the factory, so that when the vehicle enters an active zone it generates a vehicle identification event which gets transmitted to any listening control system, whether that is a line-side tool controller or the Manufacturing Execution System (MES) controlling the line. By defining identification zones in software, they become soft assets that are completely flexible and configurable.





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