GEMBA SYSTEMS™

REAL-TIME LOCATION SYSTEM

Our Real-Time Location Systems (RTLS), based on ultra-wide band technology, is built and optimized for industrial environments. It can track thousands of small tags over a large area, with positioning accuracy up to 4 inches, enabling significant waste reduction while improving visibility and compliance.

Main Features

Tags: Small and reusable tags enable real-time location tracking with years of battery life. Using state-of-the-art ultra-wide band (UWB) technology, the tags help locate and track assets in real-time with a sub pallet-level accuracy of up to 4 inches.

Anchors: Anchors are the cornerstone of successful positioning. Designed for superior UWB reception, they capture signals, process data, and communicate with a gateway. Up to 8 anchors can be connected in a chain with PoE+ allowing for easy deployment.

Gateway: A dedicated server takes care of anchor synchronization and computes the real-time position of all the tags. One gateway can handle up to 264 anchors, allowing for large-scale deployments.

Companion Software: Visualization software shows the real-time and historical locations of all the tags. The software can be deployed on premise or in the cloud.

Analytics: Location-based analytics provide a fully featured toolbox to explore the positioning data through multiple interactive views. Easy to integrate thanks to open API, MQTT protocol support and standard integration with select ERP and Warehouse Management Systems.

Use Cases

Tools	Materials	Parts
Work-In-Progress	Equipment	People

Benefits

- **Find what you are looking for - instantly.**
  - Quickly locate raw materials, parts, work-in-progress, tools, tooling, ancillary equipment, forklifts, people, etc.

- **Optimize processes based on heat maps and flow analysis:**
  - Full transparency on current and prior locations, queue and wait times, move events, routings, usage, etc.
  - Automate alerts or transactions based on geofencing.
  - Spot variations from standard to help identify improvement opportunities.

- **Reduce transportation and motion waste:**
  - Develop the most efficient routes for forklifts and other mobile equipment based on digital spaghetti diagrams depicting actual travel paths.
  - Identify opportunities to improve equipment and storage layout on the factory floor and in the warehouse based on actual data.

- **Improve asset allocation and use:**
  - Identify process bottlenecks.
  - Make sure all equipment, materials and tools are used as intended, rather than sitting in storage or cluttering up valuable shopfloor space.

About Gemba Systems Inc.

Gemba Systems Inc. supports manufacturing companies in the digitalization of their operations, especially focused on improving their manufacturing execution systems. We help companies navigate the complex and fast-evolving landscape of "smart manufacturing" and the Industrial Internet of Things. We offer guidance, tools, and hands-on support in the selection and implementation of those industry 4.0 technologies that will best support our clients' most critical business processes, and the people who perform them.

People

Our expert team will guide you through your digital transformation and operational excellence journey with the following services:

- Digital strategy development and execution support
- Needs assessment and opportunity prioritization
- Cost / benefit analysis, ROI assessment, and project justification
- Functional specifications development
- Vendor selection
- System implementation and integration
- User training and support
- Project planning and execution support

Processes

Gemba Systems will help you achieve your digitization, digital transformation, and operational excellence goals by implementing effective and efficient processes that deliver the best total return and realize the intended value of your solutions, from planning and assessment through testing, deployment, operation, and continuous improvement.

Technology

Gemba Systems Inc. offers guidance, tools, and hands-on support in the selection and implementation of proven or promising Industry 4.0 technologies, such as augmented reality (for digital work instructions and inspections, remote technical assistance or warehousing operations), real-time asset location tracking, productivity (OEE) reporting, advanced planning and scheduling, and more.

For more information, please visit www.gemba.systems or contact us at alain@gemba.systems.

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