eforthink Advances China Leading Forklift Anti Collision System Supplier Solutions for Safer Workplaces

CHENGDU, SICHUAN, CHINA, September 28, 2026 / EINPresswire.com/ -- In warehouses, factories, and logistics facilities, the growing interaction between forklifts and pedestrians creates a persistent challenge for workplace safety. As a China Leading Forklift Anti Collision System Supplier, eforthink develops UWB-based solutions that help identify proximity risks before they become collisions. Its approach combines precise distance measurement, configurable warning zones, real-time positioning, and immediate alerts to support safer movement of forklifts and personnel in shared industrial spaces.



Why Forklift Anti-Collision Technology Matters

Forklifts are essential for moving raw materials, finished goods, pallets, and equipment, but their operation often overlaps with pedestrian activity. The risk becomes more difficult to manage around loading areas, storage aisles, production lines, intersections, and blind corners where visibility can be restricted.

Conventional safety measures such as designated traffic lanes, warning signs, mirrors, lighting, operator training, and physical separation remain important. However, these measures cannot always account for every movement in a dynamic facility. A pedestrian may enter a forklift route unexpectedly, while two vehicles can approach the same intersection from different directions.

Forklift anti-collision technology adds an electronic layer to this safety framework. Instead of depending only on what an operator can see, a positioning system can continuously measure the distance between relevant objects and provide an alert when they approach a predefined safety range. This is particularly useful in high-traffic environments where people, vehicles, and materials are constantly moving.



eforthink's UWB Approach to Forklift Safety

eforthink uses Ultra-Wideband technology as the core of its forklift collision warning system. The system combines UWB ranging base stations installed on forklifts with wearable tags carried by personnel. The base stations can measure distances between vehicles, while the tags interact with vehicle-mounted devices to identify personnel-forklift proximity.

Safety thresholds can be configured according to the requirements of a facility. When the measured distance falls below the selected range, the system can trigger audible and visual warnings, while wearable tags can also provide alerts to personnel. This creates a two-sided warning mechanism rather than relying solely on the forklift operator to recognize a potential hazard.

The same principle can be applied to several common risk scenarios. Vehicle-to-vehicle warning can help identify forklifts approaching one another, while personnel-to-vehicle warning focuses on pedestrian safety. Blind-corner protection extends the concept to locations where walls, racks, equipment, or other structures restrict direct visibility.

The system supports positioning and ranging precision of up to 10 cm under the specified application conditions. Its anti-multipath capabilities are also relevant to industrial environments containing metal structures and equipment, where reflected wireless signals can complicate location measurements.

From Proximity Warning to Real-Time Location

One of the important distinctions in eforthink's approach is that forklift safety does not have to remain an isolated alarm function. UWB positioning can provide real-time location information for vehicles and personnel, creating a broader real-time location system (RTLS) around the same infrastructure.

For safety managers, this can make movement patterns easier to understand. Personnel and forklift locations can be monitored in real time, while historical trajectories can be reviewed when investigating particular events or evaluating traffic patterns. Electronic fencing can also define restricted areas and generate alerts when tracked objects enter zones outside their permitted operating boundaries.

Video integration provides another possible layer. When positioning information is connected with surveillance systems, location data can help provide additional context for events occurring within a facility. Instead of treating each safety incident as an isolated occurrence, businesses

can use location information to examine how vehicles and personnel moved before and during an event.
This combination of warning and positioning is particularly relevant to warehouses that are moving toward more connected operational models. The same infrastructure used for collision prevention can support vehicle visibility, personnel tracking, geofencing, and other location-based functions.

Industrial Hardware Built Around UWB and RTLS

eforthink's product ecosystem includes UWB tags, anchors, modules, and positioning hardware designed for industrial and IoT applications. Within forklift safety deployments, the UWB Outdoor Ranging Host functions as a key vehicle-side device, combining distance measurement, positioning capabilities, and configurable audio-visual alarms.
The device is designed for industrial environments and incorporates anti-multipath performance, low-power operation, and IP65 protection. Its documented operating temperature range is -20°C to 60°C, while communication interfaces include RS485 and digital I/O. These characteristics allow the hardware to be incorporated into industrial safety systems rather than treated as a consumer-oriented proximity device.
Wearable positioning tags provide the corresponding personnel-side component. Depending on the application, eforthink's broader positioning hardware portfolio also includes multi-functional tags, helmet locator tags, and other RTLS devices. This allows a project to be structured around the specific people, vehicles, assets, and areas that need to be monitored.

A Technology Platform for Different Industrial Environments

Forklift safety is closely connected with the wider development of industrial location technology. Manufacturing plants, warehouses, logistics centers, and other facilities increasingly require visibility into the movement of workers, vehicles, work-in-progress materials, and equipment. eforthink works across this broader RTLS field, combining UWB with positioning algorithms, software, hardware development, and system integration. Its technology portfolio also includes positioning approaches such as AOA, GNSS, and RSSI, allowing different technologies to serve different application requirements. This broader capability is useful when forklift safety needs to become part of an existing digital infrastructure rather than operate as a completely separate system.
The practical advantage is not simply having more positioning technologies available. Industrial facilities differ considerably in layout, density, environmental conditions, and operational processes. A positioning solution therefore needs to account for the actual environment and the type of information required, whether the priority is proximity warning, asset visibility, personnel tracking, or location-based process management.

eforthink's Role in Industrial Location Solutions

The development of a forklift anti-collision system requires capabilities that extend beyond individual UWB components. Hardware reliability, positioning algorithms, software functions, integration, deployment, and ongoing technical support all influence how effectively a system can operate in an industrial environment.

eforthink positions its technology around this integrated model. Its broader product and solution portfolio covers industrial RTLS, logistics, automotive applications, forklift safety, healthcare, and asset tracking. The company also provides UWB tags, anchors, and modules as components for customized positioning architectures.

For forklift applications, the central objective remains straightforward: provide timely information when people and vehicles come too close, while using the same location infrastructure to improve visibility across the workplace. This makes the anti-collision system relevant not only to immediate safety management but also to the gradual digitalization of industrial operations.

As warehouses and manufacturing facilities continue to combine physical automation with real-time data, precise location information can become an increasingly useful part of workplace safety. eforthink's UWB-based forklift solutions provide a framework for combining proximity warning, real-time positioning, and location-based management within a single industrial environment.

More information about eforthink's forklift anti-collision systems, UWB products, and industrial RTLS solutions is available at https://www.eforthink.com/.

eforthink Technology Co., Ltd.
eforthink Technology Co., Ltd.
email us here

This press release can be viewed online at: https://www.einpresswire.com/article/945748318

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.
© 1995-2026 Newsmatics Inc. All Right Reserved.