

## ZeroKey's high-accuracy indoor positioning system

Indoor facilities such as factories, warehouses, and offices require more accurate positioning of people, forklifts, and robots in order to prevent collisions and improve work efficiency. Although GPS satellites can be used for positioning outdoors, GPS satellite signals cannot be received indoors, so alternative technologies are needed. ZeroKey's high-accuracy indoor positioning system can solve this problem.

### Do you have any of the following needs? We want to...

- Accurately locate the positions of AGVs/AMRs, drones, etc.
- Visualize routes taken by forklifts, drones, workers, etc.
- Identify the positions of people and objects in three dimensions
- Maintain a safe distance between "robots and heavy machinery" and "people"
- Prevent careless mistakes by workers and utilize operational data

### Product Features

- Utilizes proprietary US patented ultrasonic technology to achieve highly accurate positioning in mm/cm units
- Acquisition of 3-dimensional (X, Y, Z) coordinates, inclination, and acceleration information is possible
- Indoor positioning is achieved through ultrasonic construction of a system similar to GPS

	ZEROKEY	UWB	BLE	Wi-Fi	RFID
Accuracy	1.5 mm	30 cm	1 m	10m	1 m
Coordinate information	3D	2D	2D	2D	2D
Positioning distance	<b>20 m</b>	20 m	4 m	20 m	1 m
Self calibrating	○	×	×	×	×
Power consumption	○	×	○	×	N/A

### Product Lineup



• Universal type  
(62.4 x 45.3 x 17.7 mm)



• PoE/permanent installation type  
(119 x 65.9 x 31.5 mm)



• Button battery type  
(36 x 36 x 11 mm)

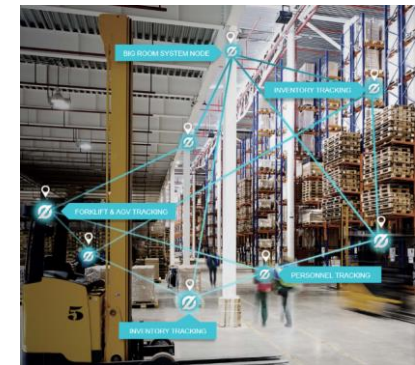


• Wristband type  
(37.5 x 25.5 x 13 mm \*excluding band)

### ZeroKey Corporate Profile

Indoor positioning solution supplier using ultrasonic sensors for high accuracy positioning. Zerokey's products are capable of three dimensions (X, Y, Z axes) positioning recognition in spaces that have been difficult until now, and the system shows great potential as a solution for spaces where high-accuracy spatial recognition is required, such as factories, warehouses, and construction sites.

- Corporate name: ZeroKey Inc.
- Established: 2015
- Number of employees: Approx. 40
- Location: Calgary, Canada  
<https://zerokey.com/>



## Use Case 1: Self-positioning of AGV/AMR

### Freedom of tracks for AGV/AMR

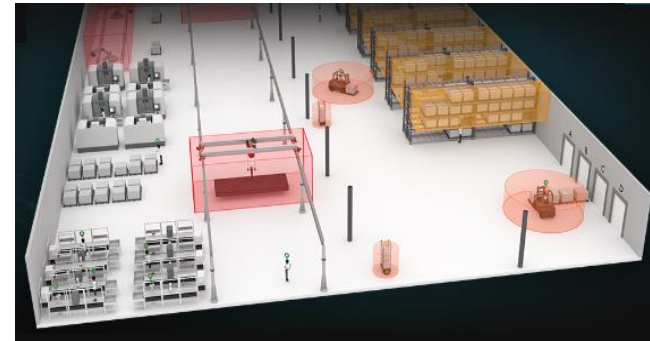
Improved freedom of equipment layout in the factory and tracks for devices such as AGVs



## Use Case 3: Monitoring the distance to various machines

### Securing the safety of workers

Constantly monitor the distance between various machines and workers and control the operation of the machines



## Use Case 2: Tracking people and objects

### Workflow-line optimization

Improve work efficiency by analyzing the flow lines of skilled workers and transport machines



## Use Case 4: Visualization of the work site

### Monitoring worker operations and equipment positions

Convert worker movement into data and use it for education  
Manage the position of devices to prevent losses



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