

## PRODUCT SHEET

## **SMART SPACE**

# HYPER-ACCURATE INDOOR POSITIONING & ASSET TRACKING

## **FEATURES**

Smart Space is a hyper-accurate positioning technology for 3D location of assets, personnel and equipment across large industrial environments, down to the millimetre.

Smart Space is the gateway to enterprise transformation, digitizing the physical world with high fidelity timing and location data to provide the context for actionable insight.



## **HOW DOES IT WORK?**

Our core technology is based on ultrasonics, which unlike UWB and BLE technology, is not affected by metallic objects typical of industrial environments.

ZeroKey has taken indoor positioning to another level with self-calibrating, millimetres level positioning in a low power, ultra compact form factor. Our technology can be deployed at any scale, enabling you to digitize all assets of interest in any environment. Operations can be monitored in real-time using highly intuitive dashboards, while immersive 4D visualizations and powerful analysis tools can be used to optimize your processes.

ZeroKey's trackable nodes come in several form factors, but functionality is primarily the same. Each node is uniquely identifiable and configurable based on a use case. For example, nodes can be configured to sleep to maximize battery life when no movement is detected when tracking pallets in a distribution centre. When tracking workers in constant motion nodes can be set to a constant update rate.



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#### SALES

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#### SUPPORT:

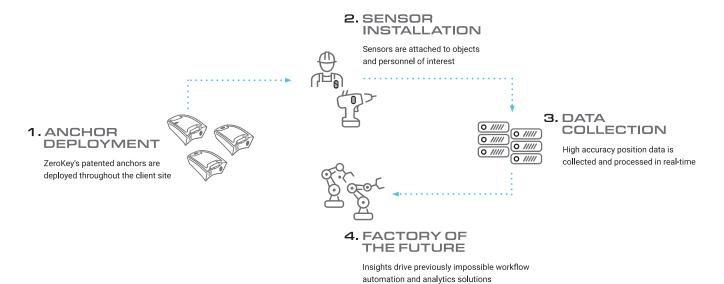


## **SMART SPACE** PRODUCT SHEET

## SYSTEM COMPARISON

	ZEROKEY	UWB	RFID	BLE	Wi-Fi
ACCURACY	1.5mm	15cm	1m	4m	20m
2D OR 3D	3D	3D	1D	2D	2D
INFRASTRUCTURE SPACING	40m	25m	1m	4m	20m
DETECTION	PRECISE	COARSE	SPOT	AREA	AREA
TRACKING					
SELF CALIBRATING	<b>⊘</b>	×	×	×	×
COST PER UNIT	\$	\$\$\$\$\$	\$	\$	\$\$\$\$\$
SCALABILITY	WIDE AREA	LIMITED	LIMITED	LIMITED	LIMITED
BATTERY LIFE			PASSIVE		
ANNUAL MAINTENANCE	-	\$\$	_	\$ \$	\$\$\$\$
TOTAL COST OF OWNERSHIP	\$	\$ (\$) (\$)	\$	\$ (\$)	\$\$\$\$

## SYSTEM ARCHITECTURE



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## **SMART SPACE** USE CASES

### **HEALTH & SAFETY**

#### THE PROBLEM

Despite modern technological advancements and sophisticated solutions, injuries and deaths are regular occurrences in industrial environments.

#### THE SOLUTION

ZeroKey Smart Space is deployed across target facilities and mobile nodes are carried by workers during their normal activities.

#### THE OUTCOME

Employees are notified proactively if they are entering a dangerous or prohibited location. Should an emergency occur (eg. fire, explosion, or gas leak), automatic notifications are immediately dispatched to affected workers, while real-time analytics can be used to command and control a rapid response and effective resolution.

## **SCM & LOGISTICS**

#### THE PROBLEM

A major distributor has inefficiencies in their hand-picking supply chain environment leading to slow order fulfillment and eroding bottom line from non-competitive supply chain costs.

#### THE SOLUTION

Using ZeroKey Smart Space technology paired with AR or heads-up display i.e. Google Glass, workers are guided through a new waveless picking process optimized with digital path routing.

#### THE OUTCOME

Picks per hour by manual pick staff is increased by 35%, order latency is reduced by 30%, and the training cost of new staff is reduced by 90%.





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## **SMART SPACE** USE CASES

## **MANUFACTURING**

#### THE PROBLEM

A major manufacturer experiences high error rates in their assembly processes due to complex assembly requirements.

#### THE SOLUTION

ZeroKey wristbands are utilized to digitally track the wrists of the assembly line worker and enable digital workflow monitoring with real-time quality assurance and quality control.

#### THE OUTCOME

Assembly errors are dramatically reduced and data of the production environment leads to targeted data driven optimization of production processes.

## **AGV'S & FORKLIFTS**

#### THE PROBLEM

A major automotive manufacturer makes extensive use of AGV's in their production environment. Changes to AGV routes requires shutdown of the plant to rework guide strips, leading to significant lost production revenues.

#### THE SOLUTION

ZeroKey sensors are deployed on the AGV's to replace the magnetic strip based navigation system. Navigation routes are updated digitally without any physical changes to the production facility.

#### THE OUTCOME

Plant shutdowns are eliminated and AGV's are monitored in real-time from a centralized dashboard.





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