

oToBrite



**SafeZone - Vision-AI Sensing System for Bus Doors**



## Product Description

SafeZone is the first AI vision-based anti-pinch sensing system designed for bus door safety, overcoming the blind spots of traditional pneumatic mechanisms. It identifies people in various scenarios—such as holding an umbrella, carrying a backpack, or when only part of a limb is visible—with high accuracy even in crowded or low-light environments. The system provides proactive alerts, door-stop control, and automatic reopening, and has already been deployed on hundreds of buses across Taiwan.

### Applications – Anti-Pinch System for Bus Doors

This safety system includes oToBrite's sensing controller and visual perception module, paired with a door controller. The system proactively detects the presence of individuals near the bus door area to prevent injuries caused by the doors closing.

## Product Features

- Detects a 30 cm area outside the bus door when it opens.
- Prevents the door from closing if a passenger is detected.
- Stops detection once the door is fully closed.



● Large crowds



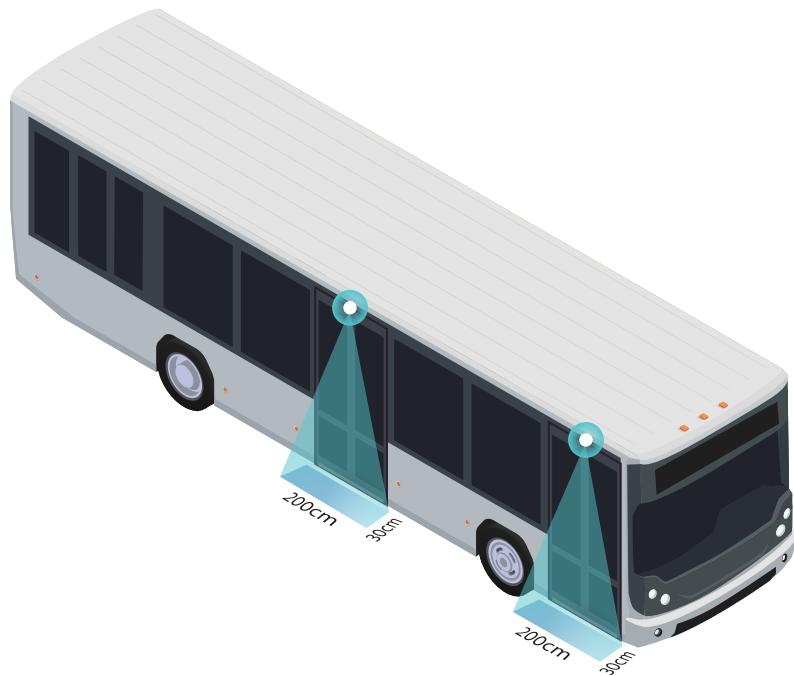
● People carrying umbrellas



● Partially obscured person

## System Sensing and Detection Trigger Conditions

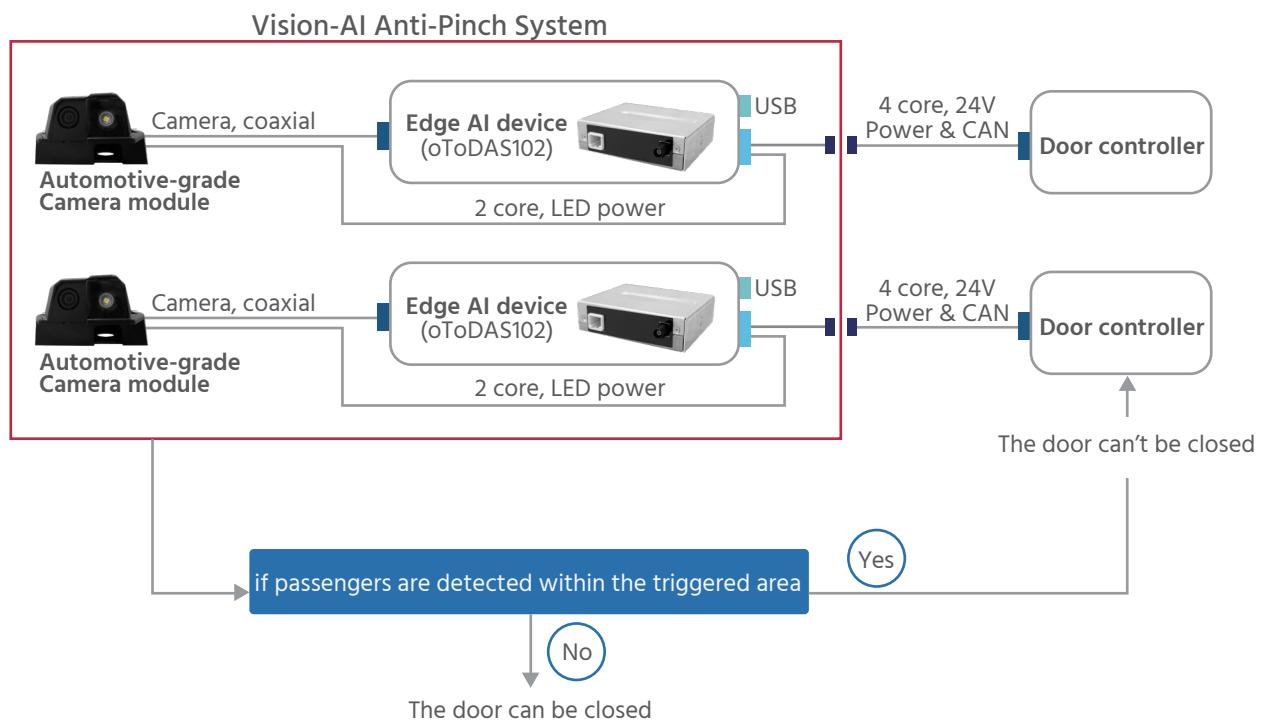
- Target Object: Passengers
- Required Detection Trigger Area: 200 cm x 30 cm outside the bus door.
- Description: The system detects passengers within 30 cm outside the bus door and prevents the door from closing.



## Product Content

Provides the Following Products:

Including sensing controllers, visual perception modules, and wiring harnesses within the red box. The configuration includes one set for the front door and one set for the middle door.



## Product Spec. (Customized for different applications)

Sensing Controller (oToDAS102)	Specification
Voltage Range	16V~32V
Operation Temperature	-20°C ~ +70°C
Storage Temperature	-20°C ~ +75°C
Ingress Protection Rating	IP51

Visual perception modules (oToCAM206-L137T+LED Lamp)	Specification
Operating Temperature	-20°C ~ +70°C
Storage Temperature	-20°C ~ +75°C
Ingress Protection Rating	IP69K (Camera)
LED Lamp	In response to the night sensing function, LED lights can be installed depending on the situation

## Outline Drawing



*driving easier and safer*



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