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NEXUSEYE™

Millimeter-wave Radar for Pedestrian Detection

Systems & Electronics Division
Sumitomo Electric Industries, Ltd.

Date: August, 2025

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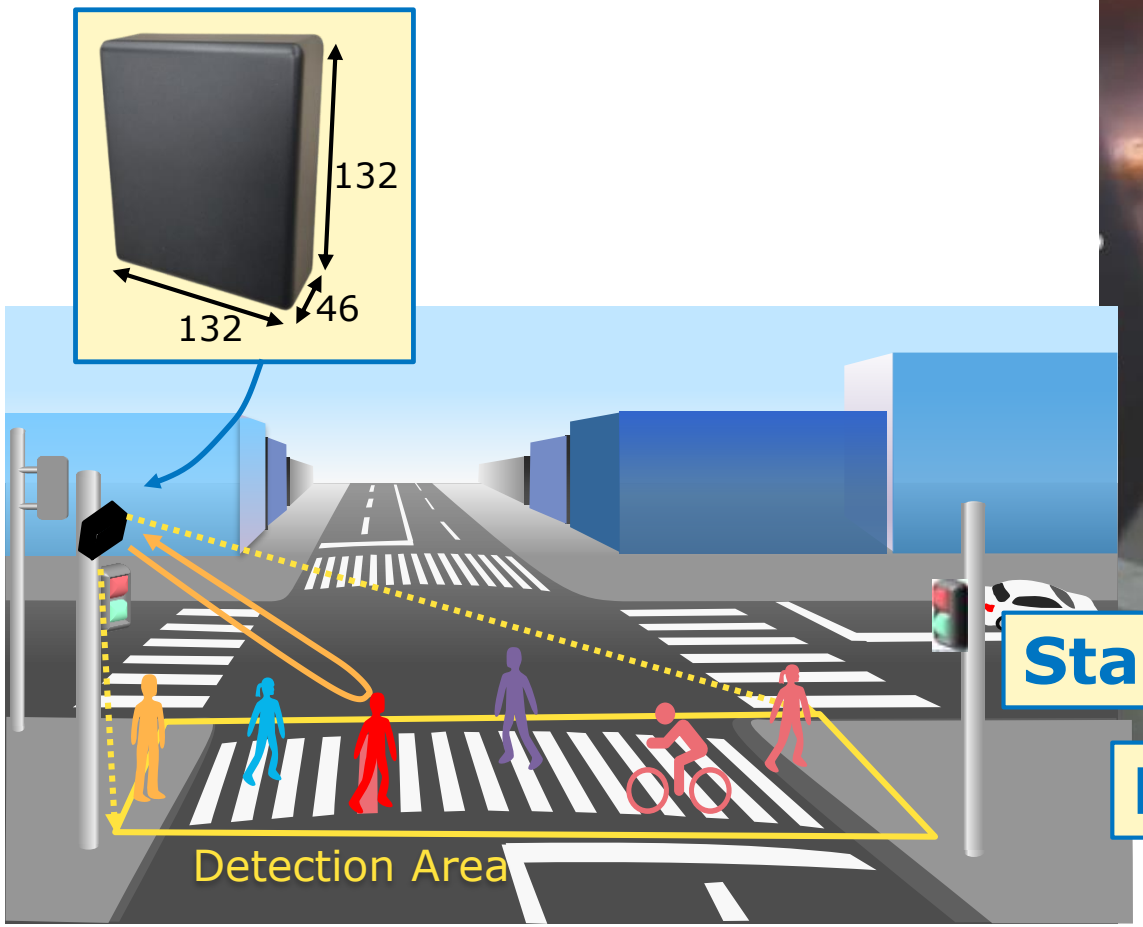
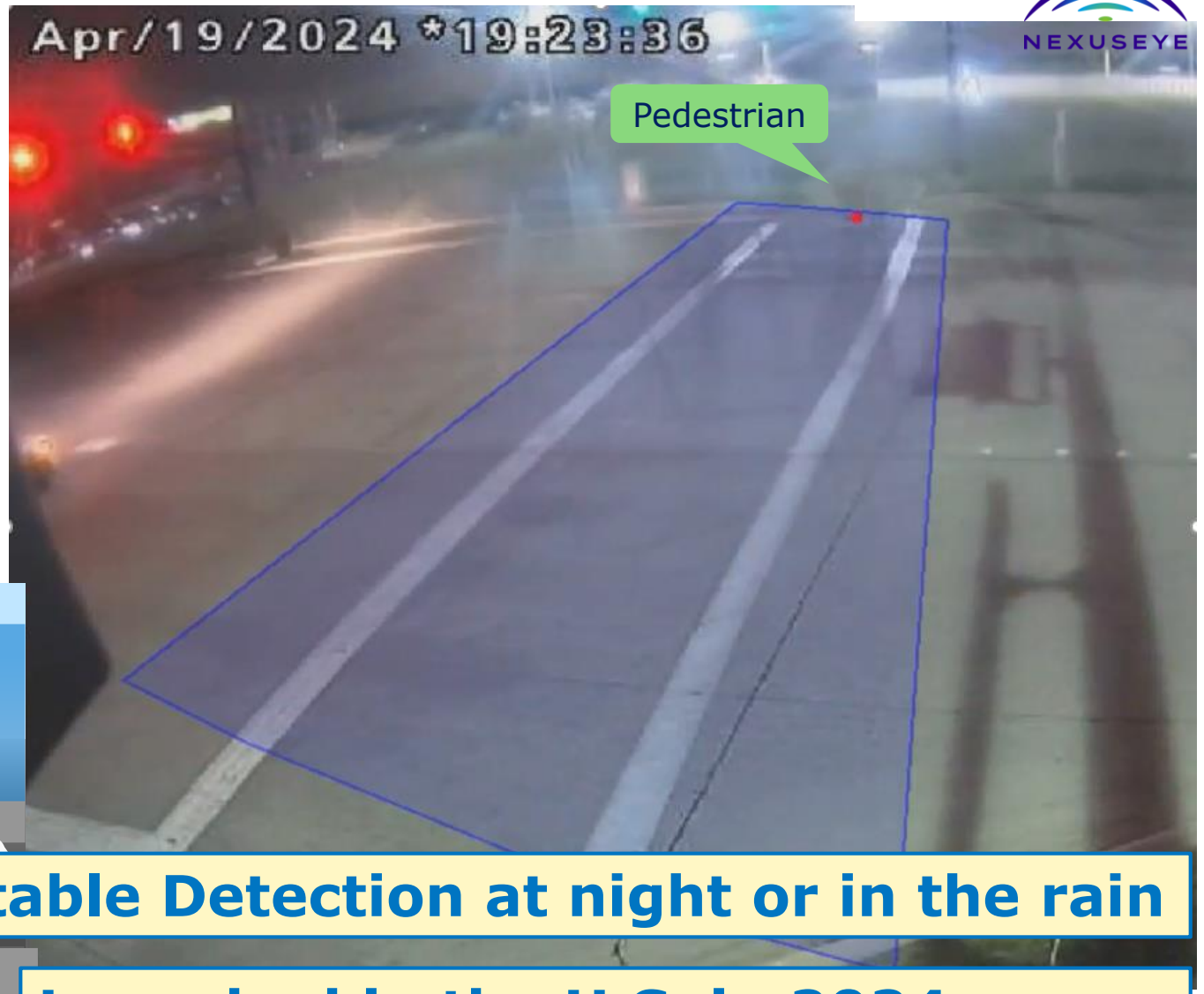
SEI's Radar for Detecting Pedestrians

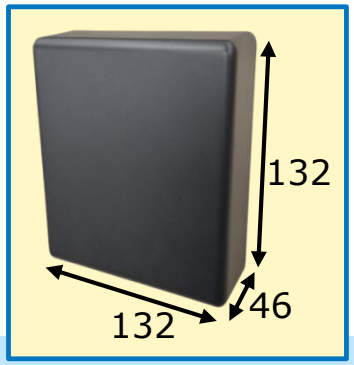


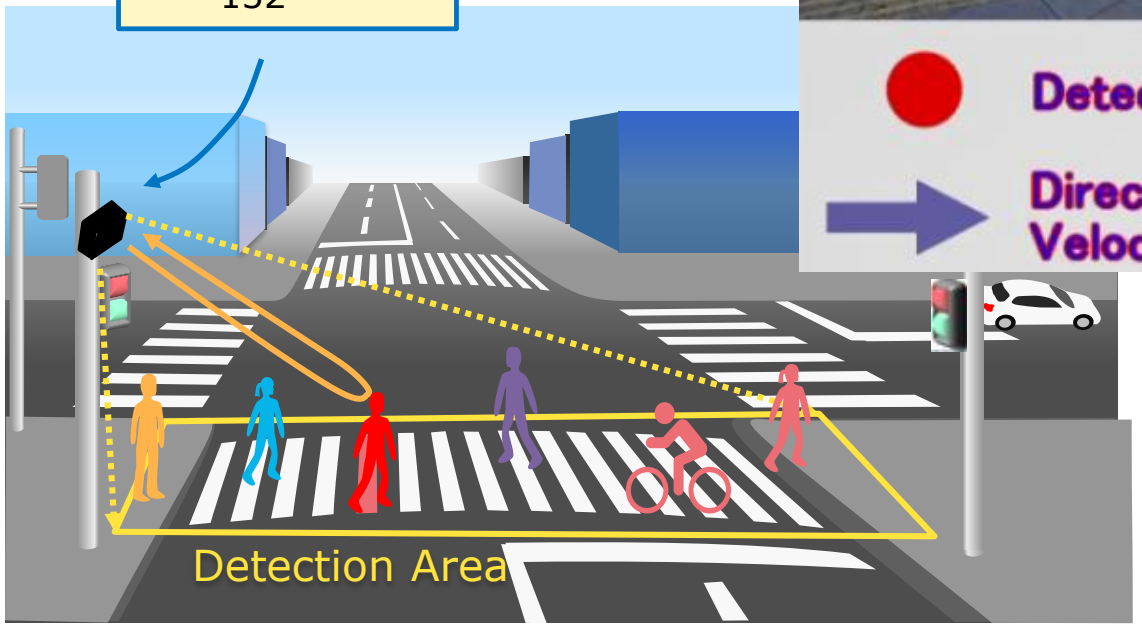


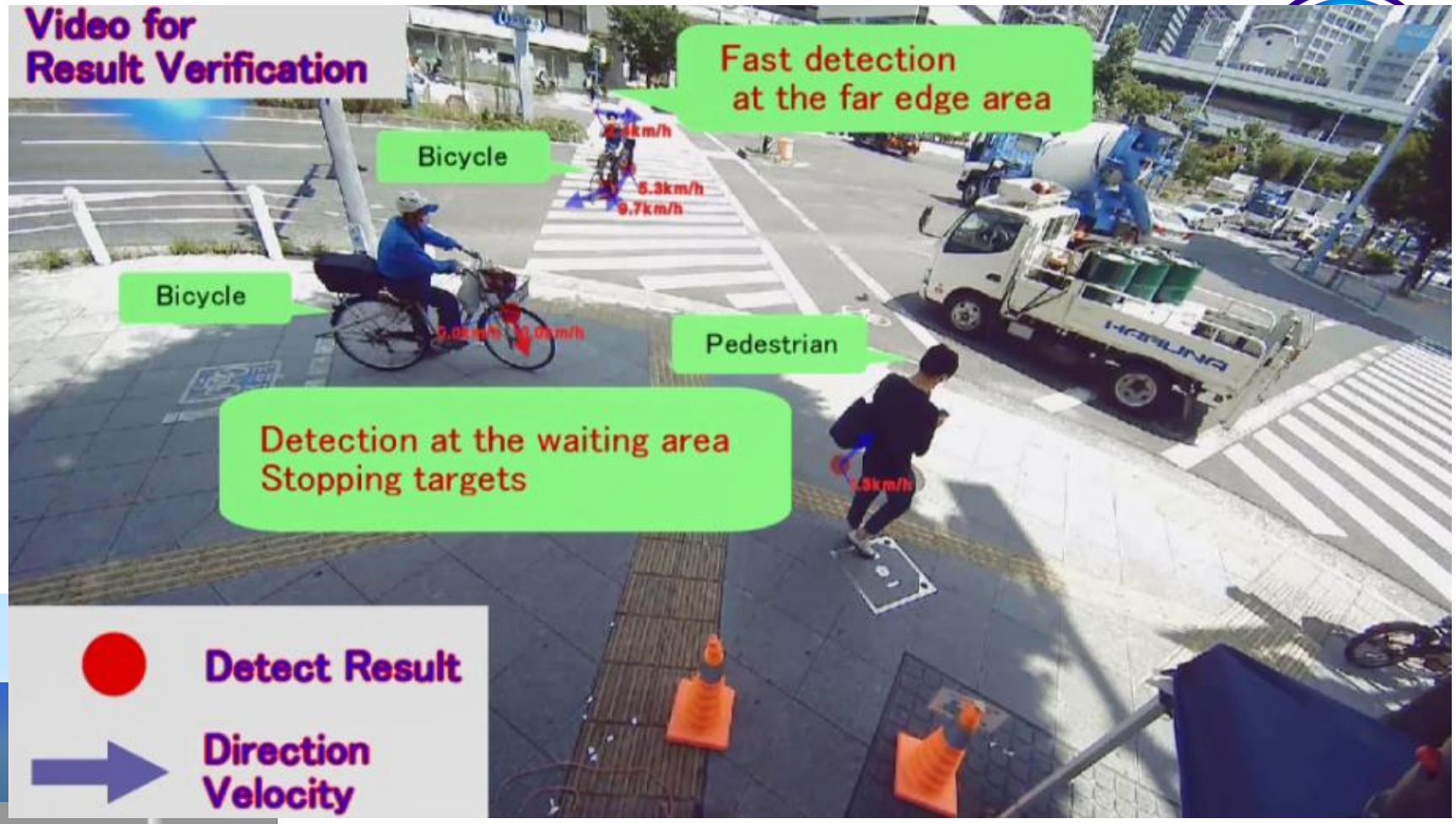
Stable Detection at night or in the rain

Launched in the U.S. in 2024

SEI's Radar for Detecting Pedestrians







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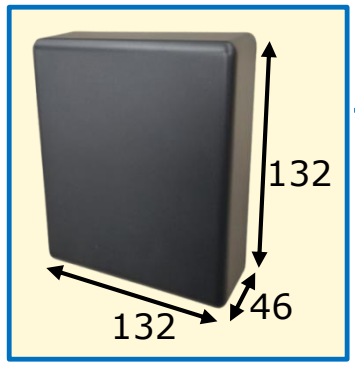
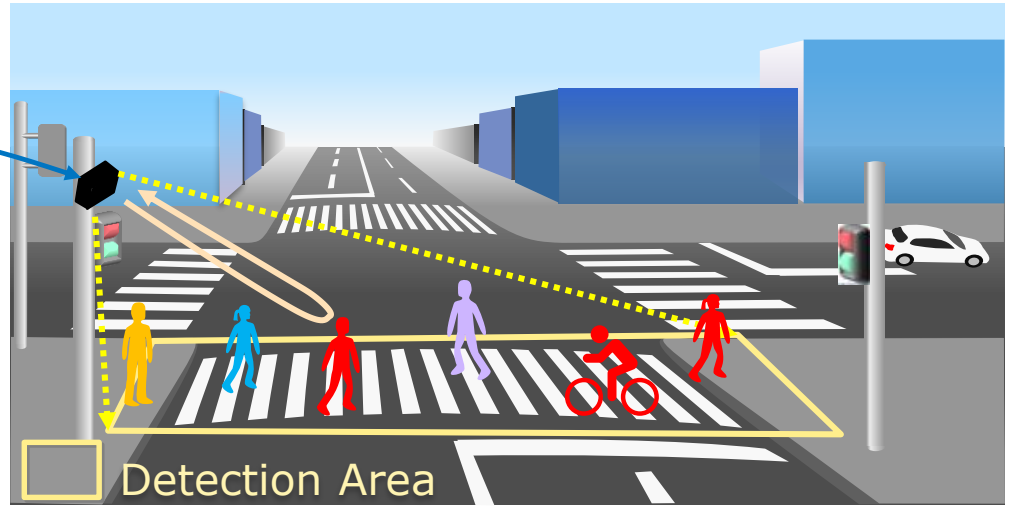




- Stable Detection **at night or in the rain**
  Missed calls : less than 1%

- Covers most standard crosswalks
  (**55m x 30m**)

- Detects pedestrians, bicycles, and other Vulnerable Road Users even they are **standing still**

- Output the position, speed, direction and number of detected pedestrians **in real time** (every 100ms)

- **Low maintenance cost**
  (no cleaning required)

Why choose SEI's Radar

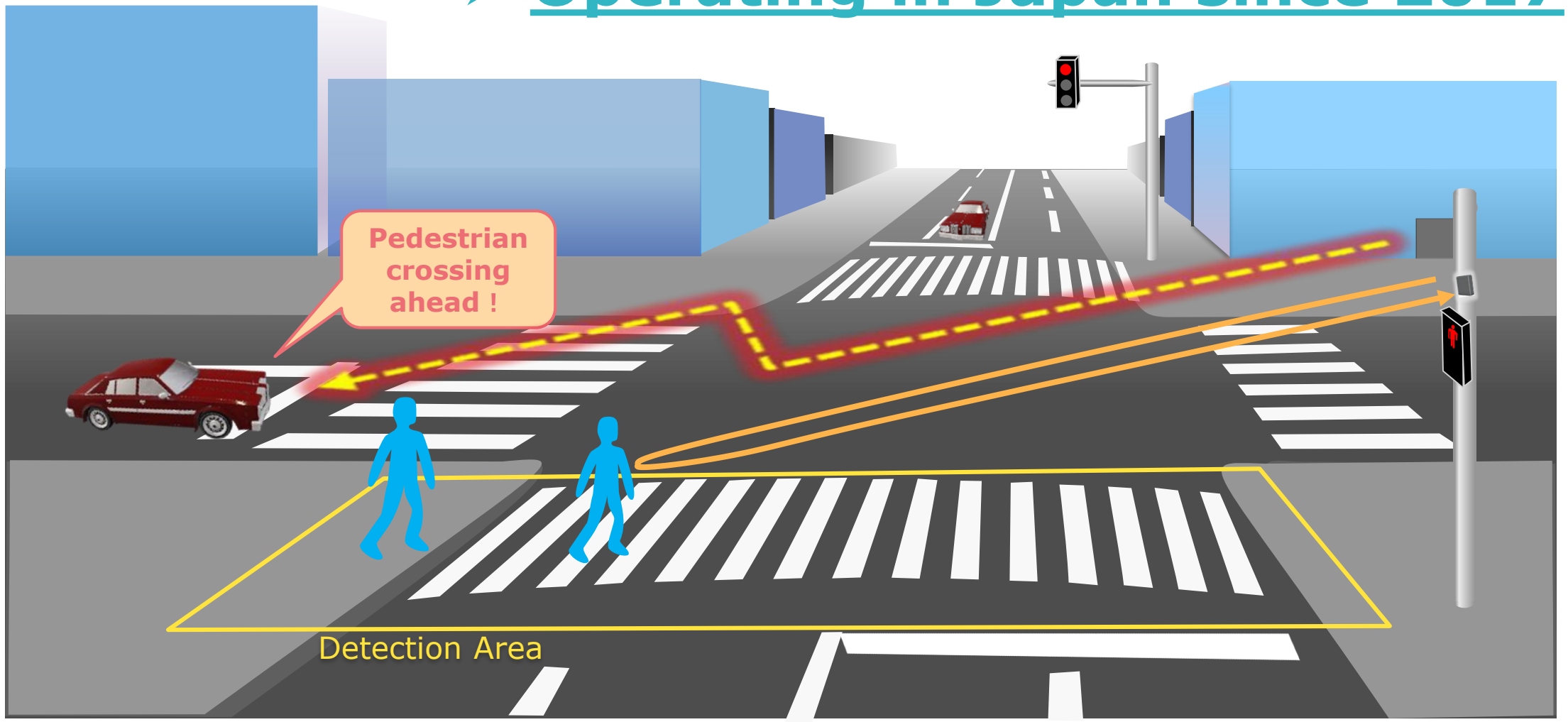
Item	SEI's Radar	Lidar	Camera
Detection Area	Great!	Good	Good
All lighting	Great!	Good	Modest
All weather	Great!	Good	Modest
Maintenance	Great!	Modest	Modest
Shape and Color	None	Good	Great!

Use Case for traffic signal control

- Signal extension for pedestrian **Safety**
- Optimize the signal length for **Efficiency**

Use Case for warning drivers

➢ **Operating in Japan since 2017**



Accuracy

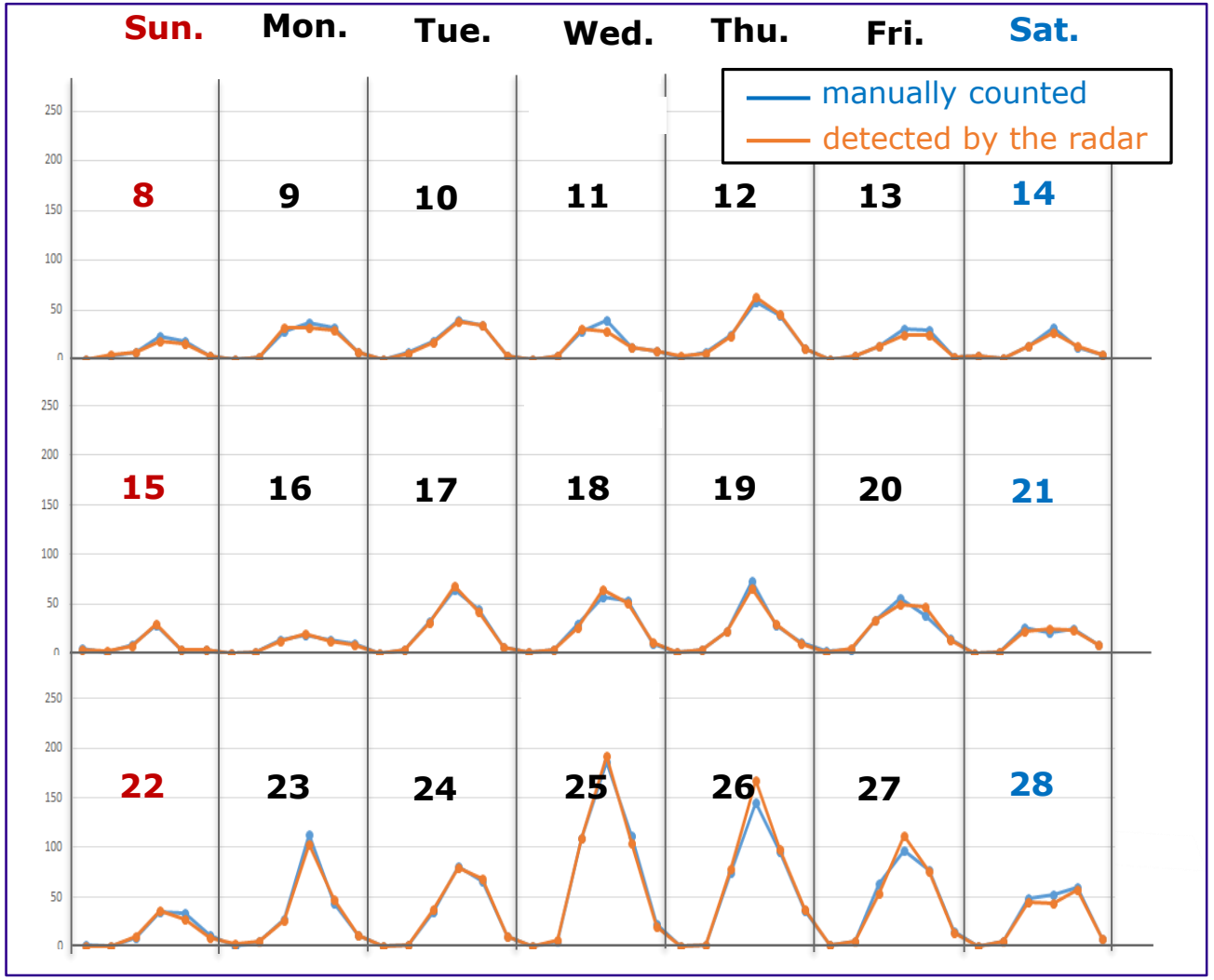
Detection accuracy

Missed calls : less than 1%

False calls : less than 3%

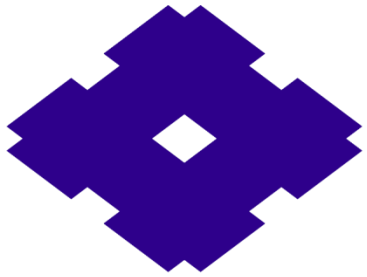
- at two sites in U.S.
- total of six hours,
- including at night and in the rain

Counting accuracy



Specifications

Item	General	Remarks
External Dimensions	132 × 132 × 46 mm	Excluding mounting bracket
Weights	Less than 1 kg	Excluding mounting bracket
Installation	Height 3 to 5 m	
Radar Frequency	61.0-61.5GHz	ISM Band, FCC compliance
Max. Detection Area (Length / Width)	55m × 30 m	required "setback" = 1.5m (depends on the height)
Output Data	position, velocity, direction counts	
Interface	Ethernet	output every 100ms
Installation Adjustment	Easy set-up with PC tool	



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