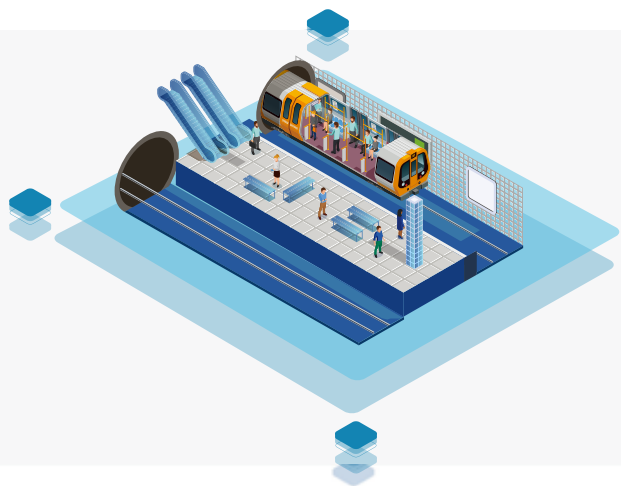# Automatic Passenger Counter Sensmode PCBot M40

Sensmode PCBot M40 Automatic Passenger Counter, based on stereoscopic vision technology, is specifically built for urban rail transit systems.

This product obtains environmental depth data through visual radar sensing technology, without involving personal identity privacy. It only uses the human head and shoulder feature extraction algorithm to achieve continuous crowd tracking and passenger counting in complex scenes, with an accuracy of over 95%.

Optimize subway schedule

Basenger data in each time period, the departure schedule is optimized, which not only improves passenger experience but also reduces operating costs.

Help make subway services more intelligent

Data connection to PIS can guide passengers to divert traffic and greatly improve ride comfort.

Upgrade pricing model

Based on riding patterns, the pricing model can be optimized to improve rail transit operating income levels.

Enhance operational security

Statistics of the actual operating load of the vehicle, timely maintenance of the vehicle, and avoiding accidents in advance.

Innovative Technology Enables Accurate Passenger Counting

We have exclusively solved the technical problem of binocular stereo imaging with a large viewing angle. The product has a large field of view of 140°x120° and can be installed at a minimum position of 1.7m, leading the industry.

Accuracy is stable over 95%

• Accurately excludes luggage and other objects
• Can easily cope with passenger peak hours
• Passengers getting on and off the bus can be counted separately

Combination of multiple devices

• Support network cascading
• Support power supply cascadet

Easy access to the PIS

• Adopt M12 aviation plug interface
• Access door opening and closing information to make statistics more intelligent
• Data transmission uses UDP multicast form

Adapt to both light and dark

• Adapt to dynamic changes in light during vehicle driving
• Adaptable to dim light and dark scenes

PERFORMANCE PARAMETERS

VISUAL PARAMETERS	
VISUAL FIELD	Horizontal 140°，Vertical 120°
FUNCTION PARAMETERS	
HEIGHT RANGE	1.9m~3.0m
COVERAGE RANGE	1.3m~7.0m
FILTER HEIGHT	0.5m~1.2m
TECHNICAL PARAMETERS	
POWER	Turn off fill light < 5W; Turn on fill light <10W
POWER SUPPLY MODE	POE （802.3af/at）
DIM LIGHT COMPENSATION	Automatic infrared light on and off
NETWORK INTERFACE	M12
ADDRESS	Static state IP / DHCP
OFFLINE CACHING	90 Days
DATA UPLOAD METHOD	UDP multicast, access to switch gate information
TIME SYNCHRONIZATION	UDP MULTICAST
WORK ENVIROMENT	
WORK TEMPERATURE	-20°C ~ 55°C
WORK HUMIDITY	20% ~ 80 %
STORAGE TEMPERATURE	-40°C~70 °C
STORAGE HUMIDITY	20%~ 80%
PACKAGING	
STRUCTURE SIZE	200 x 62 x 45.3 (mm)
WEIGHT	500g

SOLUTION ARCHITECTURE

Edge AI computing system, the overall system architecture is simple and reduces equipment cost investment.

Multi-service IoT
Edge Gateways

IoT Integtation
Platform

Alarm

Notify

Setting Parameters

Access Data

Export Data