

# Application of Photonics Technology in Robotics Industry

According to the International Federation of Robotics (IFR), robots are divided into industrial robots and service robots. Industrial robots refer to those used in production processes and environments. Service robots refer to those used in non-manufacturing industries to serve humans. Service robots can be divided into personal/household service robots and professional service robots. Service robots equip themselves with functions of navigation and positioning, motion control, and human-machine interaction. The key to going to destinations by themselves is autonomous positioning and navigation. And for industrial robots, a fully-fledged machine vision system is essential to complete production tasks. Machine vision is the installation of cameras for industrial equipment, making it possess visual sense just like humans and achieving various functions such as detection, measurement, recognition, guidance and positioning.

APE 2024 (Asia Photonics Expo) is a comprehensive exhibition covering the whole photonics industry chain, showcasing upstream raw materials and core components of robots, as well as machine vision integration and manufacturing. It is a one-stop solution platform where robot enterprises can acquire upstream and downstream products, learn about innovative technologies and conduct business connections.

# APE 2024

Asia Photonics Expo

## March 6-8, 2024

Marina Bay Sands Singapore

**15,000**  
Exhibition Area

**5,000+**  
Visitors

**400+**  
Exhibitors

## Exhibitor Profile



## Exhibit Profile

- Core Components of Machine Vision
- Light Sources
- Industrial Lenses
- Industrial Cameras
- Machine Vision Lenses
- Optical Lenses and Camera Modules
- Machine Vision System and Applications
- Infrared Cameras and System
- ...
- LiDAR
- 3D Cameras
- 3D Imaging and Sensing
- MEMS and Sensors
- Millimeter Wave Radar
- Industrial Lasers
- Laser Processing Equipment
- Industrial Sensors
- Industrial Testing and Measurement Equipment
- ...

## Target Visitors

Manufacturers of Industrial Robots/Intelligent Equipment/Service Robots/Consumer Drones, Terminal Manufacturing and Application Enterprises, Infrared Camera and System Manufacturers, Machine Vision Equipment Manufacturers and System Integrators, etc.

## Key Exhibitors

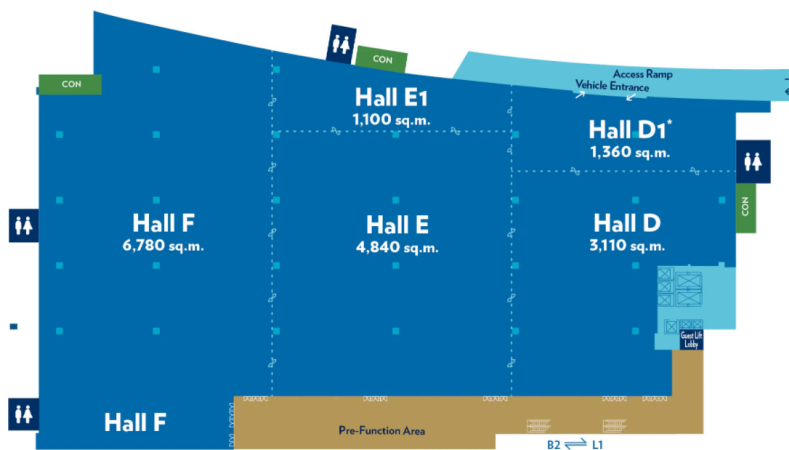


## FLOOR PLAN

EXHIBITION HALLS ON

# B2

Floor Area 17,190 sq.m.



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