



## Automated Material Handling in Semiconductor Industry

### THE BACKGROUND

Our client is a leading Global Electronics Manufacturing Services (EMS) company that provides a wide range of high value added manufacturing solutions and services. The services include providing design, engineering, manufacturing, packaging, and distribution of electronic assemblies and circuit boards on a contract basis to a variety of industries.

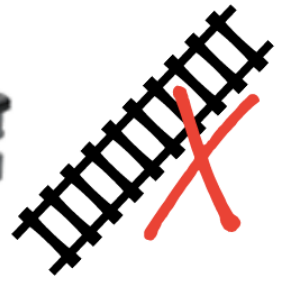
In 2019, it opened its new manufacturing plant in Malaysia with over RM1billion investment. This is the company's largest production facility with a 350,000 sq ft built-up area.

### THE CHALLENGE

The client is looking to automate its material handling processes to send goods placed on trolley from multiple processing stations to 12 different production rooms such as kitting room, auto-mount room, packaging room, and staging room. These 12 production rooms requires access control and are accessible via an automated door.

Furthermore, due to the nature of the business, its production/factory floor layout may change according to its end user's processing needs, hence the inflexibility of AGV magnetic track system does not suit its needs.

Konica Minolta (KM) provided AMR along with the use of LiDAR scanner, 3D camera, and proximity sensor; this allows it to navigate around a dynamic obstacle without a track.



## THE SOLUTION

KM also retrofitted 12 automated doors with a wireless communication device which allows the AMR to move without human intervention from room to room.



The AMRs can be configured easily by factory personnel via its web based UI to cater to factory floor layout changes.

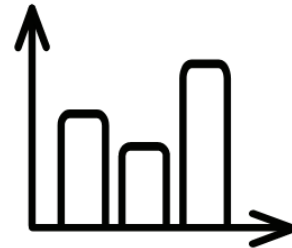
## KEY BENEFITS



Used for the transfer of intralogistics for 12 production floors



Utilisation rate of more than 90%



## Customer Feedback

“The AMR is very easy to learn. I am able to map out newly set up production rooms by myself, and configure missions easily!”

~Production Process Engineer

