

till 2030





# 1. INTRODUCTION

## 1.1. REPORT DESCRIPTION

SLAM navigation AMR is an autonomous mobile robot (AMR) that uses simultaneous localization and mapping (SLAM) technology to navigate and map its environment. It is a technique used in robots to create a map of an unknown environment while localizing the robot within that environment. This allows robots to navigate and move autonomously, without relying on pre-existing maps or external guidance. The AMR uses a combination of sensors, such as cameras, LiDAR, or sonar, to gather data and build a map and determine its location.

The demand for SLAM navigation AMR is increasing due to the rising implementation of robotics around the world. Also, the growing integration of advanced technologies such as artificial intelligence (AI) and machine learning (ML) in AMRs is expected to propel the growth of the market. Moreover, the increasing adoption of Industry 4.0 that integrates digital and physical systems in manufacturing and other industries are also further expected to boost the market growth during the forecast period.

However, high cost of implementing SLAM navigation AMRs is expected to restrain the growth of the market. On the other hand, advancements in sensor technology such as LiDAR sensors, depth cameras, and inertial measurement units (IMUs) plays a crucial role in enabling more accurate and reliable SLAM navigation for AMRs is expected to create lucrative growth opportunities for the SLAM navigation market players in future.

The global SLAM navigation AMR market is segmented on the basis of component, type, payload capacity, application, end user industry and geography. Based on the component, the market is categorized into hardware and software. Based on type, the market is classified into mouse, fork, and others. Based on payload capacity, the market is divided into up to 100 KG, 101–200 KG, 201–500 KG, 501–1000 KG, 1001–2000 KG, and 2001–5000 KG. Based on application, the market is bifurcated into towing, lifting, tugging, and other application. Based on end user industry, the market is classified into electronics, semiconductors, FMCGs, automotive, pharmaceuticals, healthcare, logistics, food & beverage, and new energy. The semiconductor industry is further classified into design services, manufacturing services, and packaging & testing. Manufacturing services are further sub-classified into water manufacturing, SMT/PCBA manufacturing, IGBT manufacturing, FPD manufacturing, and others. Geographic breakdown and analysis of each of the aforesaid segments includes regions comprising of North America, Europe, Asia-Pacific, and RoW.

The market comprises of various players such as Gideon Brothers, Omron Corporation, Multiway Robotics (Shenzhen) Company, Iplusmobot Technology Co. Ltd., 6 River Systems, Shanghai Seer Intelligent Technology Corporation, Geekplus Technology Co., Ltd., Mobile Industrial Robots A/S, ABB Ltd., Locus Robotics, Fetch Robotics, GreyOrange Pte. Ltd., OTTO Motors, Seegrid Corporation, Addverb Technologies



Limited, and others. These manufacturers are actively indulging in R&D initiatives, product & technology innovations, and industrial collaborations to enhance their product and increase their growth and geographical reach.

## 1.2. WHO SHOULD READ THIS REPORT

This report will be valuable for anyone wanting to better understand the leading players in the industry and its underlying dynamics. It will prove useful for businesses who wish to expand into different sectors or explore a new region for expansion of their existing operations. The report comprehensively lays out the product offerings, investments, risks trends, of leading companies and their strategies to help the reader formulate a better-informed business strategy. This report will be ideal for senior executives, business development managers, marketing managers, consultants, CEOs, CIOs, COOs, and Directors, governments, agencies and organizations will also find value in our research report.

## 1.3. KEY MARKET SEGMENTS

## BY COMPONENT

- Hardware
- Software

#### BY TYPE

- Mouse
- Fork
- Customization

#### BY PAYLOAD CAPACITY

- Up to 100 KG
- 101-200 KG
- 201-500 KG
- 501-1000 KG
- 1001–2000 KG
- 2001–5000 KG



## BY APPLICATION

- Towing
- Lifting
- Tugging
- Other Application

#### BY END USER INDUSTRY

- Electronics
- Semiconductors
  - Design Services
  - Manufacturing Services
    - Water Manufacturing
    - SMT/PCBA Manufacturing
    - IGBT Manufacturing
    - FPD Manufacturing
    - Others
  - o Packaging & Testing
- FMCGs
- Automotive
- Pharmaceuticals
- Healthcare
- Logistics
- Food & Beverage
- New Energy

## BY GEOGRAPHY

- North America
  - o U.S.
  - o Canada
  - o Mexico
- Europe
  - o UK
  - Germany
  - France
  - Italy
  - o Spain
  - o Denmark
  - Netherlands
  - o Finland

M

- Sweden
- Norway
- o Russia
- Rest of Europe
- Asia-Pacific
  - China
  - Japan
  - o India
  - South Korea
  - o Australia
  - o Indonesia
  - o Singapore
  - Taiwan
  - o Thailand
  - Rest of Asia-Pacific
- Rest of World
  - o Latin America
  - o Middle East
  - Africa



## 1.4. KEY MARKET PLAYERS

- Mobile Industrial Robots A/S
- Omron
- ABB
- Locus Robotics
- Iplusmobot
- Seegrid
- Otto Motors
- Shanghai Seer Intelligent Technology Corporation
- Multiway Robotics (Shenzhen) Company
- · Geekplus Technology Co., Ltd
- GreyOrange
- Addverb Technologies Limited
- Gideon Brothers
- Fetch Robotics
- 6 River Systems

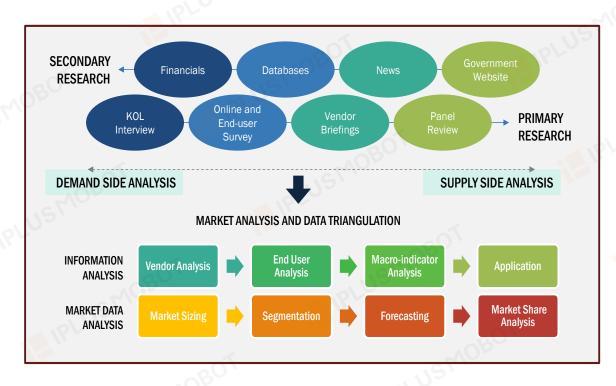


IPLUSMOBOT

## 1.5. RESEARCH METHODOLOGY

Next Move Strategy Consulting focuses on extensive secondary research, model building through demand and supply analysis, and estimating the market size based on multiple factors such as GDP, per capita income, product lifecycle, adoption readiness, and growth potential, among many other macro-economic indicators. We have developed extensive statistical forecast models, to estimate the actual demand in terms of values and volume existing in the market. The data is augmented by our internal database and validated by a panel of esteemed KOLs from various industries and regions. In addition, we also follow top-down and bottom-up approach to triangulate our estimations and conduct deep dive analysis of all the niche market segments.

#### Overview:





#### 1.5.1 SECONDARY RESEARCH

Our analysts conduct extensive secondary research by exploring open-source information and paid databases to gather qualitative as well as quantitative information, which are analyzed and then presented in the report. The secondary research process includes extraction and analysis of data from the below sources:

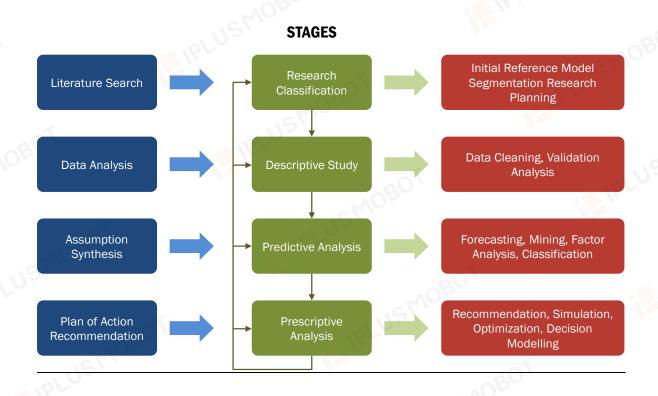
- Company SEC filings, annual reports, 10-K and 10-Q forms, press releases, earning transcripts, broker & financial reports, and investor presentations
- Paid databases such as product sales, volume, sales force databases such as IMS, IPSOS,
  Symphony, etc.
- Premium data providers such as Cap IQ, Avention, Factiva, Bloomberg to get the information about private companies
- Patent and Regulatory databases to understand regulatory framework, developments
- Government and International databases such as world bank, WHO, industry associations
- News, current developments, articles, blogs





## 1.5.2 DATA ANALYSIS FRAMEWORK

Data Collated is analyzed in a framework to achieve accuracy and derive insights. Following is a snapshot:

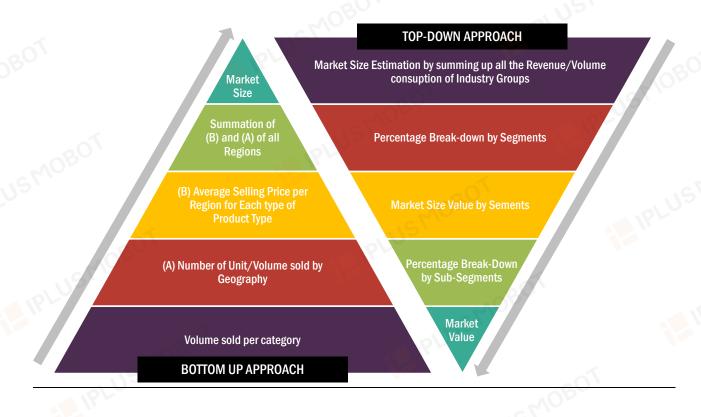




Market value is estimated using:

**Top-down and bottom-up approach:** In Bottom-up approach, the data is analyzed at segment, subsegment or micro-level and then aggregated to arrive at macro market estimate. In this, company level revenue and volume are aggregated to estimate the overall market size. This is validated by Top-Down approach, wherein the macro market is segmented into different regions and sub-segments, based on various assumptions, and percentage splits are assigned. Market size is the quantitative product of market volume or unit sold and the average selling price of the product.

**Demand and supply side analysis:** Market size is estimated by analyzing demand scenario, consumption patterns, customer pool assumption and analyzing the net sales of the supplier in each market segment **Macro-indicator approach:** Various macro-economic factors such as GDP, National expenditure, inflation, consumer price index, consumer confidence survey, and major government statistics are considered and analyzed to estimate market size.



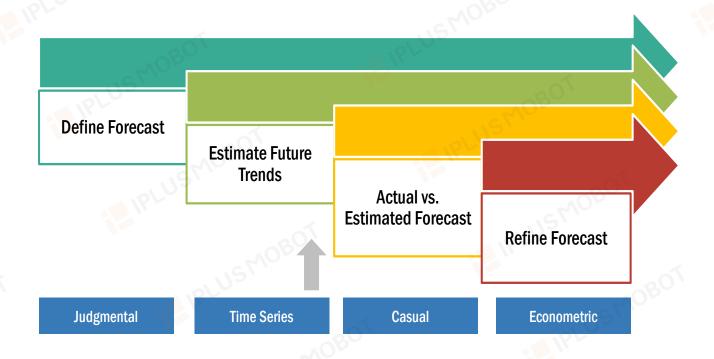
IPLUS MOBOT



## 1.5.4 FORECASTING

Various parameters are considered to establish a model that can forecast the future consumption. Demand forecasting is done considering factors such as population, economic scenario, regulation, market competition, drivers, restrains, technological advancements, pricing, etc.

We perform statistical forecasting to derive simulation models. We use different forecasting techniques such as multilinear regression, exponential smoothing, moving average, ARIMA, patient based, Monte-Carlo, capital equipment-based forecasts to achieve highly accurate results. In econometric forecast, we consider short term and long-term event impact and attribute analysis to derive forecast values. Regulatory framework, economic factors, market events are considered as attribute to do such estimation.





#### 1.5.5 PRIMARY RESEARCH AND DATA VALIDATION

We conduct exhaustive primary interviews (face to face, telephonic) to validate our findings and assumptions. Interviewees are the experts across the globe with wide experience in the corresponding market. Supply side KOLs are brand insight managers, supply chain managers, marketing managers, VPs, CEOs, etc. Demand side interviewees are dealers, distributors, wholesalers, retailers etc. Our primary interview panel supports us widely in data validation, providing vital insight and understanding of the market scenario at a grassroot level.

## Supply Side

- KOL Interviews
- Interview with CEO, Brand mangers, Technology innovators
- Vendor Briefing
- Product Demos

## **Demand Side**

End User Survey

IPLUSMOBOT

- Business manager surveys
- Interview with Product purchase manager

More information, please contact us via overseas@iplusbot.com