An intelligent, laser-based natural feature navigation system. This means no wires, tapes or navigation marks.

Capable of navigating by reference to existing features within the working environment.

Advanced 2D/3D Laser contour scanning and mapping algorithms combine to generate a navigation map from the available features within the working environment. These mapped features are used to determine vehicle position during vehicle operation.

Options for indoor and outdoor operation. Wide range of laser types supported, e.g. safety scanners, high fidelity 360 scanners.

Deployment in minutes, easy to adapt to changing demands, infrastructure and processes.

An industry proven navigation solution which accelerates the process of vehicle automation for all vehicles types.

SCENE navigator / localiser solutions can determine a vehicles position by:

- Reference to working area fixtures
- Reference to navigation specific marks

Adopt SCENE software is used during the set-up process to survey working areas and generate precise reference maps which directly link to your CAD drawings for easy integration.

The sophisticated localisation and mapping algorithms within SCENE are then used to guide the AMRs/AGVs as they carry out their tasks autonomously.
SCENE Laser/Vison-based Natural Feature Navigation for Autonomous Mobile Robots

SCENE is designed to maximise your logistical requirements with the minimum of effort across multiple business sectors:

- Automotive production
- Agriculture
- Food and beverage
- Chemical storage
- Healthcare/pharmaceutical processes
- Textiles
- Tobacco
- 3C Electronics
- Warehousing
- Retail

SCENE Navigator Interface Specification

<table>
<thead>
<tr>
<th>Performance</th>
<th>± 1cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>0m – 500m (dependent on laser scanner type)</td>
</tr>
<tr>
<td>Angular Resolution</td>
<td>0.5° typically (dependent on laser scanner type)</td>
</tr>
</tbody>
</table>

**CPU**

- Intel® Celeron® Processor J1900 (2M Cache, Up to 2.42 GHz SoC, 10W TDP)

**BIOS**

- AMI 64 Mbit SPI BIOS

**Memory**

- 1x DDR3L 204-pin SO-DIMM, up to 8GB (1066/1333MHz, un-buffered)

**Storage**

- 1 x mSATA for full-size mini-PCIe socket
- 1 x 2.5" SATA 2.0, 1x mSATA (Shared by 1x Mini-PCIe socket)

**Graphics**

- Integrated Intel® HD Graphics
- Two Independent Display

**Audio**

- Realtek® ALC888S
- High Definition Audio

**I/O Interface**

- 1x DVI-I Connector, Up to 1920 x 1080
- 2x GbE LAN Ports (Support Wake On Lan, Teaming, Jumbo Frame, PXE), RJ45
- 4x RS-232/422/485, Auto Flow Control, DB9
- 1x USB 3.0 & 3x USB 2.0 (Type-A)
- 1x Mic-in and 1x Line-out, Phone Jack 3.5mm
- 1x ATX Power On/Off Switch Button
- 1x AT/ATX Mode Switch
- 2 x CANbus / CANopen Connection - 9W D-Sub Male Connector

**Diagnostics Ethernet**

- Remote Software Upgrade and Diagnostics

**Electrical**

- Operating Voltage: 9~48VDC
- Power Consumption: Typical 8.3W, Max.15W

**Protection**

- Reverse Power Input Protection Supported
- Over Voltage Protection (OVP) Up to 51V
- Over Current Protection (OCP) 120V/ 20A

**Other Function**

- Instant Reboot Technology (0.2 sec)
- Watchdog Timer: Software Programmable Supports 1~255 sec. System Reset

**Environmental**

- Operating Temp: -25°C to 70°C (SSD) with Air Flow IEC60068-2-1, IEC60068-2-2, IEC60068-2-14
- Storage temperatures: -40°C to 85°C with air flow
- Shock: 50 Grms (With SSD According to IEC 60068-2-27, Half Sine, 11ms Duration)
- Relative Humidity: 95% RH @ 40°C (Non-Condensing)
- Vibration: Random: 5 Grms (With SSD According to IEC 60068-2-64, 5~500Hz, 1 hr/axis)

**Housing**

- Dimensions: (W x D x H): 150 x 105 x 56.02 mm
- Weight: 0.86 kg

**2D/3D Laser Scanning Options**

- Pepperl & Fuchs R2000
- Sick S300/S3000
- Omron 0S32C
- Hokuyo UAM-05LP-T301/T301C
- Others on Request

**Certification**

- CE
- FCC Class A
An award-winning pioneer in guidance, navigation and control technologies, Guidance Automation has over 25 years’ experience in developing advanced solutions for the global robotic vehicle market and has thousands of systems in service.

Our aim is to consistently meet our clients’ needs by offering automated guided vehicle technologies which serve the market need and improve operational performance and efficiency.

We are proud to have enabled our clients to automate robotic vehicles, fork lift trucks, floor cleaning equipment and all types of mobile moving systems. These solutions have been applied in a broad range of autonomous transport applications such as airports, warehousing, healthcare, production, bottling plants, printing, retail, marine and more.

We are committed to the continuous advancement of innovative and optimal vehicle automation.