Athena General Robot Platform

Product Selection Guide

Low cost

Small robot development platform

Rich configuration and high scalability
Introduction

Athena is a small-sized and low cost robot development platform designed by SLAMTEC. It meets small robot application development requirements like intelligent patrol robot and delivery robot and etc. With build-in SLAMWARE Cube autonomous localization and navigation suite, it is ideal to finish path finding, localization and navigation tasks and come with different applications to work in various commercial environment.

Athena adopts multi-sensor fusion technology integrating lidar, ultrasonic sensor, cliff sensor, magnetic sensor, depth camera, bumper, which makes it to have an excellent mapping, localization and navigation performance in complicated and changing environment.
<table>
<thead>
<tr>
<th>Performance &amp; Parameters</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Robot Name</th>
<th>Athena General Purpose Robot Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robot Version</td>
<td><strong>Professional</strong></td>
</tr>
<tr>
<td><strong>ID</strong></td>
<td><img src="image1" alt="Robot" /></td>
</tr>
<tr>
<td><strong>Core Feature</strong></td>
<td>SLAM localization and navigation</td>
</tr>
<tr>
<td><strong>Hardware System</strong></td>
<td>SLAMCUBE (K1M1)</td>
</tr>
<tr>
<td><strong>Wheel Type</strong></td>
<td>Two wheel differential driving</td>
</tr>
<tr>
<td><strong>Dimension</strong></td>
<td>404mm×390mm×470mm (±10mm)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>About 20kg</td>
</tr>
<tr>
<td><strong>Top Weight</strong></td>
<td>About 20-30kg</td>
</tr>
<tr>
<td><strong>Mapping Performance</strong></td>
<td>Map definition 5cm</td>
</tr>
<tr>
<td><strong>Ethernet</strong></td>
<td>10/100/1000 Mbps</td>
</tr>
<tr>
<td><strong>User Power</strong></td>
<td>DC 20~25.2V 5A Max</td>
</tr>
<tr>
<td><strong>System Switch</strong></td>
<td>Yes (+Note 1)</td>
</tr>
<tr>
<td><strong>Emergency Stop</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Brake Release</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Turn Light</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Wi-Fi</strong></td>
<td>5G&amp;2.4G 802.11a/b/g/n/ac</td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>SLAMWARE™ Windows/iOS/Android/Linux</td>
</tr>
<tr>
<td><strong>Walking Performance</strong></td>
<td>Washing Speed 0~1m/s</td>
</tr>
<tr>
<td><strong>Maximum Passing Slope</strong></td>
<td>5°</td>
</tr>
<tr>
<td><strong>Maximum Passing Obstacle Height</strong></td>
<td>20mm</td>
</tr>
<tr>
<td><strong>Maximum Passing Gap Width</strong></td>
<td>40mm</td>
</tr>
<tr>
<td><strong>Sensor Performance</strong></td>
<td>Rplidar Scan Radius 40m</td>
</tr>
<tr>
<td><strong>Single Hole Type USS</strong></td>
<td>Number 3</td>
</tr>
<tr>
<td><strong>Maximum Detecting Distance</strong></td>
<td>45cm</td>
</tr>
<tr>
<td>Standard USS</td>
<td>Number</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Multi-cliff Sensor</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnetic Sensor</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth Camera</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Bumper</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery</td>
<td>Capacity &amp; Specification</td>
</tr>
<tr>
<td>Power Dissipation In Stand-by Time</td>
<td>&lt;20W</td>
</tr>
<tr>
<td>Working Hours</td>
<td>&lt; = 4.5h (walking constantly after fully charged)</td>
</tr>
<tr>
<td>Maximum Walking Distance</td>
<td>&lt; = 8 KM (0.5m/s constantly )</td>
</tr>
</tbody>
</table>

**Note 1:**
- Optional: the product supports to specific configuration which is not included in the normal delivery.
- Yes: Product delivery included.
- None: Product delivery not included or product not supported.
- Extension supported: the product supports to receive depth camera data via SDK interfaces.