

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.

Performance & Parameters

| Robot Name | | Athena General Purpose Robot Platform | | | |
|---------------------|---------------------------------|---|---|---|--------|
| Robot Version | | Professional | Standard | Wholesale | |
| ID | |  |  |  | |
| Core Feature | | SLAM localization and navigation | SLAM localization and navigation | SLAM localization and navigation | |
| Hardware System | | SLAMCUBE (K1M1) | SLAMCUBE (K2M1) | SLAMCUBE (K2M1) | |
| VSLAM | | Optional (*Note 1) | None (* Note 1) | None | |
| Wheel Type | | Two wheel differential driving | Two wheel differential driving | Two wheel differential driving | |
| Mass & Volume | Dimension | 406mm*384mm*303mm (±10mm) | 406mm*384mm*288mm (±10mm) | 406mm*384mm*231mm (±10mm) | |
| | Weight | About 30kg | About 29kg | About 20kg | |
| | Top Weight | About 30kg | About 30kg | About 30kg | |
| Mapping Performance | Map definition | 5cm | 5cm | 5cm | |
| | Maximum Mapping Area | 500m *500m | 350m *350m | 350m *350m | |
| User interface | Hardware Interface | Ethernet | 10/100/1000 Mbps | 10/100/1000 Mbps | |
| | | User Power | DC 20~25.2V 5A Max | DC 20~25.2V 5A Max | |
| | | System Switch | Yes (*Note 1) | Yes | |
| | | Emergency Stop | Yes | Yes | |
| | | Brake Release | Yes | Yes | |
| | | Turn Light | Yes | Yes | |
| | Wi-Fi | 5G&2.4G 802.11a/b/g/n/ac | 5G&2.4G 802.11a/b/g/n/ac | 5G&2.4G 802.11a/b/g/n/ac | |
| Software | SLAMWARE™ | Windows/iOS/Android/Linux | Windows/iOS/Android/Linux | Windows/iOS/Android/Linux | |
| Walking Performance | Walking Speed | | 0~1m/s | 0~1m/s | 0~1m/s |
| | Maximum Passing Slope | | 5° | 5° | 5° |
| | Maximum Passing Obstacle Height | | 20mm | 20mm | 20mm |
| | Maximum Passing Gap Width | | 40mm | 40mm | 40mm |
| Sensor Performance | Rplidar | Scan Radius | 40m | 25m | 25m |
| | Single Hole Type USS | Number | 1 | 1 | 1 |
| | | FOV | 60° | 60° | 60° |

| | | | | | |
|-----------------------|------------------------------------|----------------------------|---|---|--|
| | Standard USS | Maximum Detecting Distance | 45cm | 45cm | 45cm |
| | | Number | 2 | 2 | 2 |
| | | FOV | 15° | 15° | 15° |
| | Multi-cliff Sensor | Maximum Detecting Distance | 45cm | 45cm | 45cm |
| | | Number | 1 | 1 | 1 |
| | Magnetic Sensor | Minimum Detecting Distance | 5cm | 5cm | 5cm |
| | | Number | 2 | 2 | 2 |
| | Depth Camera | Number | 1 | Extension supported (*Note 1) | Extension supported |
| | | Detecting Distance Range | 0.3m~3m | | |
| | | Field of View(FOV) | H67.9° V45.3° | | |
| USB Port | | 2.0 | | | |
| Mechanical Bumper | Number | 2 | 2 | 2 | |
| | Minimum Trigger Stress | 8N | 8N | 8N | |
| Battery | Capacity & Specification | | 24V16AH | 24V16AH | 24V10AH |
| | Power Dissipation In Stand-by Time | | <20W | <20W | <20W |
| | Working Hours | | < = 4.5h (walking constantly after fully charged) | < = 4.5h (walking constantly after fully charged) | < = 3h (walking constantly after fully charged) |
| | Maximum Walking Distance | | < =8 KM (0.5m/s constantly) | < =8 KM (0.5m/s constantly) | < =5 KM (0.5m/s constantly) |
| Autonomous Recharging | Charging Station Output | | 24V6A | 24V6A | Optional |
| | Charging Time | | < = 3h | < = 3h | |
| | Quick Charging Station Output | | 24V10A | 24V10A | Optional |
| | Charging Time | | < = 1h | < = 1h | |
| Operating Environment | Operating Temperature | | 0°~40° | 0°~40° | 0°~40° |
| | Operating Humidity | | 30%~70% | 30%~70% | 30%~70% |

***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.