AGILE·X Robotics

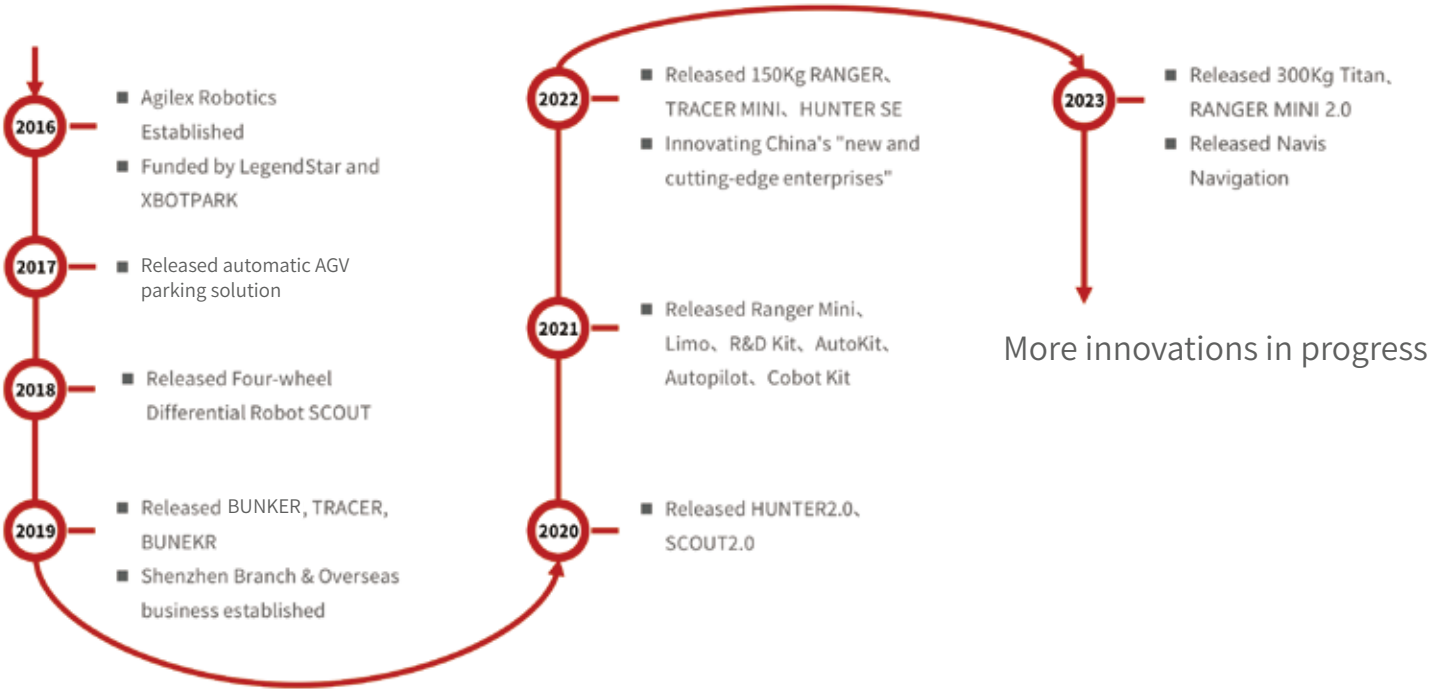
AGILEX ROBOTICS

Product Catalog

WWW.AGILEX.AI

Company Profile

AgileX Robotics' chassis-based robotics solutions have been applied to more than 1,500 projects in 26 countries. Its solutions have been deployed in academic research and across various industries, including inspection and mapping, logistics and distribution, smart factories, agriculture, unmanned vehicles and special applications.



Our Customers

Selection Guide: Robot Chassis ;Replaceable battery

CHASSIS	SCOUT2.0	SCOUT MINI	RANGER	RANGER MINI2.0	HUNTER2.0	HUNTER SE
Steering	Differential steering	Differential steering	Independent four-wheels steering	Independent four-wheels steering	Ackermann steering	Ackermann steering
Size	930x699x349mm	612x580x245mm	1228x876x520mm	738x500x338mm	980x745x380mm	820x640x310mm
Speed(full load)	1.5m/s	3m/s	2.6m/s	1.5m/s	1.5m/s	4.8m/s
Load capacity	50KG	10KG	150Kg	80KG	150KG	50KG
Replaceable battery	--	--	●	●	●	●
Battery capacity Battery upgrades	↑ 24V60AH 24V30AH	24V15AH	↑ 48V24AH*4 48V24AH	48V24AH	↑ 24V60AH 24V30AH	↑ 24V30AH 24V15AH
Operating terrain type	Normal、Outdoor obstacle-crossing, climbing	Normal、Outdoor obstacle-crossing, climbing	Normal、Outdoor obstacle-crossing, climbing	Normal、Outdoor obstacle-crossing, climbing	Normal、⩽10° climb grade	Normal、⩽10° climb grade
IP rating	IP64 IP44 IP22	IP22	IP55	IP54	IP54 IP22	IP22
Page	01	02	03	04	05	06

CHASSIS	TITAN	BUNKER PRO	BUNKER	BUNKER MINI2.0	TRACER
Steering	Front & real Ackermann Steering	Tracked differential steering	Tracked differential steering	Tracked differential steering	Two wheels differential steering
Size	1550x980x710mm	1064x845x473mm (Without antenna)	1023x778x400mm	660x584x340mm	685x570x155mm
Speed(full load)	3m/s	1.5m/s	1.5m/s	1m/s	1.6m/s
Load capacity	300KG	120KG	70KG	25KG	100KG
Replaceable battery	●	--	--	--	--
Battery capacity Battery upgrades	↑ 48V24AH*2 48V24AH	48V60AH	↑ 48V60AH 48V30AH	24V30AH	↑ 24V30AH 24V15AH
Operating terrain type	Normal、Outdoor obstacle-crossing, climbing	Normal、Outdoor obstacle-crossing, climbing	Normal、Outdoor obstacle-crossing, climbing	Normal、Outdoor obstacle-crossing, climbing	Flat terrain No slope and no obstacles
IP rating	IP54	IP67	IP54	IP67	IP22
Page	07	08	09	10	11

Selection Guide: Research Kits

KIT	AUTOKIT	R&D KIT/PRO	ROS2 EDU KIT	COBOT MINI	COBOT KIT	COBOT KIT PRO
SLAM	●	●	●	●	●	●
Path planning	●	●	●	●	●	●
Perception & obstacle avoidance	●	●	●	●	●	●
Localization & navigation	●	●	●	●	●	●
App operation	LiDAR	LiDAR+CAMERA	LiDAR+CAMERA	LiDAR+ODOM	LiDAR+ODOM	LiDAR+ODOM
App operation	--	--	--	--	--	--
Visual recognition	--	●	●	●	●	●
State monitoring	--	--	--	●	●	●
Panoramic information display	--	--	--	--	--	--
Secondary development	●	●	●	●	●	●
Page	12	13	14	16	16	17

Industry solution customization service

Collation of requirements	Preliminary research	Customized solution report	Customer delivery
Technical discussion	Industry research	Robot design scheme Structure and ID design	Customer guidance and training
Management of requirements	On-site investigation and evaluation	Robot hardware scheme Chassis + brackets + hardware equipment	Customer delivery and testing
Confirmation of requirements	Technical evaluation report	Robot software scheme (perception, navigation, decision making)	Technical support
	Program overview	Periodic Assessment Design, Assembly, Testing, Implementation	Project marketing service

» SCOUT Four-Wheel Differential Series

SCOUT 2.0: All-in-one Drive-by-wire Chassis

Unmanned Ground Vehicle (UGV) suitable for indoor & outdoor industrial applications

- Four-wheel drive, suitable for navigating complex terrain
- Kindly clarify if the long-lasting battery is available by default, or if the long-lattery battery is only avialable with external expansion.
- 400W brushless servo motor
- Circulating cooling system enables operation in all weather
- Double wishbone suspension provides stability on uneven terrain
- Secondary development and external expansion supported

Applications:

Inspection, detection, transportation, agriculture, and education

High-precision surveyor robot for roads

Agricultural Patrol robot

Specifications

Category	Specifications	
Dimensions (WxHxD)	930mm x 699mm x 349mm	
Weight	67Kg (±1)	
Maximum speed	1.5m/s	
Minimum Ground Clearance	135mm	
Rated Travelling Load	50KG(Friction Coefficient 0.5)	
Climb grade	<30° (With Loading)	
Operating temperature	-10~40°C	
Battery	24V / 30Ah (Standard)	24V / 60Ah (Optional)
Suspension form	Front Double Rocker Independent Suspension	Rear Double Rocker Independent Suspension
Rating	3h	6h
Protection Level	IP22 (Upgrade to IP44/IP64 available)	
Certification	CE	
Optional accessories	5G parallel driving/Autowalker intelligent navigation KIT/Binocular depth camera/ Automatic charging pile/Integrated inertial navigation RTK/Robot arm/LiDAR	

» SCOUT Four-Wheel Differential Series

SCOUT MINI: High-speed Drive-by-wire Chassis

Compact version of SCOUT 2.0 capable of navigating through tight spaces

Wheel Options (Off-road/ Mecanum)

- Four-wheel differential steering enables zero turn radius
- high driving speed Up to 10KM/H
- Wheel hub motor supports flexible movements
- Lightweight vehicle body capable of longer range operation
- Independent suspension provides strong driving force
- Secondary development and external expansion supported

Applications: Inspection, security, autonomous navigation, robotics research & education, photography .

Intelligent industrial inspection robot

Autonomous navigation robot

Specifications

Category	Specifications	
Dimensions (WxHxD)	612mm x 580mm x 245mm	
Weight	23Kg (±0.5)	
Maximum speed	3m/s (Standard Wheel)	3m/s (Mecanum Wheel)
Minimum Ground Clearance	115mm	
Rated Travelling Load	10Kg (Standard Wheel)	20Kg (Mecanum Wheel)
Climb grade	<30° (Without Loading)	<8° (Without Loading)
Battery	24V / 15Ah (Standard)	
Suspension form	Trailing arm independent suspension	
Protection Level	IP22	
Certification	CE	
Optional accessories	5G parallel driving/ Binocular depth camera/ LiDAR /IPC /IMU/ R&D KIT LITE&PRO	

» RANGER Independent Four-Wheel Steering Series

RANGER: Omnidirectional Mobile Robot Chassis

Omnidirectional robot with high payload capacity, for indoor and outdoor environments

- 150KG load capacity
- 160mm ground clearance allows the robot to overcome obstacles
- Four-wheel independent suspension enables navigation through challenging terrains
- Four motion modes
- Modular UPS, supports hot swrapping
- Secondary development and external expansion supported

Applications: Security, logistics/delivery

Logistics Delivery Robot

Auto charging station (optional)

Specifications

Category	Specification	Category	Specification
Dimensions (WxHxD)	1228mm×876mm×520mm	Climb grade	10°
Axle Track	560 MM	Weight	100KG
Wheelbase	890MM	Maximum Payload	150KG
Motor	48V brushless geared motor	Battery Life	2-8H
Rated Power	600W*4	Charging Time	1H(Single Battery)
Rated Torque	22NM*4	Battery Type	Lithium Battery
Speed	0~2.6M/S	Single Battery Capacity	24Ah(Support up to 4 batteries)
Drive form	Omnidirectional	Rated Voltage	48V
Maximum Obstacle Height	100MM(Vertical Obstacles Fully Loaded)	Protection Level	IP55

RANGER Independent Four-Wheel Steering Series

Supports fast charging and battery hot swapping

RANGER MINI2.0-Omnidirectional Mobile Robot Chassis

Exceptional agility across challenging indoor and outdoor environments

- Four-wheel four-turn, zero turning radius
- Four motion modes
- Modular UPS, supports hot swrapping
- 80KG load capacity
- Independent suspension, flexible deployment
- Secondary development and external expansion supported

Application: patrol, inspection, security

Collaborative Robot

Auto charging station (optional)

Spin Traverse Skew Ackerman

Specifications

Category	Specification	Category	Specification
Model	RANGER mini 2.0	Drive Mode	Hub Motor
Dimensions (WxHxD)	738mm×500mm×338mm	Form of Cooling	air-cooled
Wheelbase	494mm	Operating temperature	—10~40°
Axle Track	364mm	Charger	54.75 V 18A
Weight	64.5KG	Charging Time	1.5H
Speed	1.5km/h	Rated Voltage	48V
Ground Clearance	107mm	Battery Type	Lithium Battery
Minimum Turning Radius	0mm	Battery Parameters	48V24AH
		Output Voltage	48V
Hub Radius	100mm	Motor	Steering Drive Motor 100Wx4
Parking Type	Electronic brake		Power Drive Motor 350Wx4
Maximum Load	80KG	Communication	CAN
Climb grade	15°(with load)	Suspension	Independent Suspension
Drive form	Omnidirectional	Battery Life	IP54
Maximum Travel	35KM	Maximum Endurance	7h

» HUNTER Ackermann Steering Series

HUNTER 2.0- The Ackermann Front Steering Drive-by-wire Chassis

Best-in-class development platform for low-speed autonomous driving scenarios

- High payload capacity
- Independent suspension capable of ramp parking
- 400W dual-servo motor
- High speed, up to 10 km/h
- Portable replacement battery
- Fully extensive with ROS and CAN Port

Applications: Industrial robot, autonomous logistics, autonomous delivery

Outdoor patrolling robot

Outdoor localization and navigation robot

Specifications

Category	Specification	
Dimensions (WxHxD)	980mm x 745mm x 380mm	
Weight	65Kg-72Kg	
MAX Speed	1.5m/s (Standard)	
Minimum Ground Clearance	100mm	
Rated load	150KG	
Climbing Ability	<10° (With Loading)	
Battery	24V / 30Ah (Standard)	24V / 60Ah (Optional)
Suspension form	Front wheel non-independent suspension	
Protection Level	IP22 (Customizable IP54)	
Certification	CE	
Optional accessories	5G parallel driving/Autowalker intelligent navigation KIT/Binocular depth camera/LiDAR/IPC/IP camera/Integrated inertial navigation RTK	

» HUNTER SE: Ackermann Front Steering Drive-by-wire Chassis

Ackermann Front Steering Drive-by-wire Chassis

Compact, modular design equipped with modular shock absorption system

- 4.8M/S Upgraded Driving Speed
- 50 Kg High Load Capacity
- In-wheel Hub Motor
- Quick to replace Battery

Application: Autonomous parcel delivery, Unmanned food delivery, Unmanned logistics, Patrolling.

Specifications

Category	Specification
Dimensions	820mm x 640mm x 310mm
Minimum Ground Clearance	120mm
Weight	42kg
Maximum Payload	50kg
Battery	24V30Ah lithium battery
Charging Time	3h
Max Travel	> 60Km
Motor type	350w*2 (Brushless DC motor)
Operating temperature	-10~40°C
Suspension form	Front wheel non-independent suspension
Climb grade	50mm
Climbing Ability	10°(full load)
Minimum Turning Radius	1.5m
Maximum speed	4.8m/s
Braking distance	2m
Protection Level	IP22
Communication interface	CAN

≫TITAN Ackermann Steering Series

TITAN: Double Ackermann steering

Exceptionally stable and flexible performance on challenging terrain, suitable for various industrial applications.

- Front and rear Acknerman chassis enable maneuverability across diverse environments
- Electromagnetic parking brakes for stability
- Able to climb slopes of 10°
- Modular UPS, supports hot swrapping
- 120mm obstacle clearance

Applications:

Industrial automation, logistics, research

Specifications

Category	Specifications
Dimensions	1550mm x980mm x710mm
Wheelbase	860mm
Front/Rear Wheel Track	854mm
Mini Turning Radius	1.9m
Max Climbing Ability	10°(full load)
Mini Ground Clearance	160mm
Obstacle Clearance Height	100mm
Vehicle Weight	280KG
Speed	3m/s
Load Capacity	300KG
Battery Type	Single Battery 48V 24Ah
Power Drive Motor	Permanent Magnet Synchronous DC Motors 2X1000W
Steering Drive Motor	2X400W - DC Servo Motors 2X400W
Operating Temperature	-10~40°C
Protection Level	IP54
Communication Interface	CAN
Charging	Fast Battery Swapping/Manual Charging

» BUNKER Tracked Differential Steering Series

BUNKER PRO-Enhanced Trcked Chassis Robotics Development Platform

Super high off-road mobility for easily tackling challenging environments

- IP67 Solids Protection/Waterproof
- Climbing gradient 30°
- Strong load capacity
- Shockproof & all-terrain
- 1500W dual-motor drive system
- Fully extensible

Applications: Agriculture, Building modes, Surveying and mapping, Inspection, Transport.

Specifications

Category	Specification
Dimension	1064mm x 845mm x 473mm (excluding antenna)
Chassis height	120mm
Weight	180kg
In situ rotation maximum load	120kg
Battery	48V 60Ah Lithium battery
Charging time	4.5h
Operating temperature	-20°C~60°C
Suspension	Christie suspension + Matilda four-wheel balance suspension
Motor type	2×1500W brushless servo motor
Maximum barrier height	180mm
Climb grade	30°no-load climbing(Can climb stairs)
Max Travel	15Km
Protection Level	IP67
Communication interface	CAN / RS232

» BUNKER Tracked Differential Steering Series

BUNKER: Tracked Differential Drive-by-wire Chassis

Outstanding off-road performance with robust load capacity.

- Tracked differential steering provides exceptional terrain adaptability
- Christie suspension system enables smooth driving on challenging terrains.
- Maximum climb grade of 30°
- Duplicated - to remove

Applications: Patrolling, inspection, transportation, agriculture, disinfection, pick & place robots

Mobile pick & place robot

Remote disinfection robot

Specifications

Category	Specification	
Dimensions (WxHxD)	1023mm x 778mm x 400mm	
Weight	145-150Kg	
MAX Speed	1.5m/s	
Minimum Ground Clearance	90mm	
Rated Load In Movement	70KG(Friction Coefficient 0.5)	
Climb grade	<30° (with load)	
Battery	48V / 30Ah (Standard)	48V / 60Ah (Optional)
Suspension form	Christie Suspension	
Protection Level	IP54	
Certification	-	
Optional accessories	5G parallel driving/Autowalker intelligent navigation KIT/Binocular depth camera/ Integrated inertial navigation RTK/LiDAR/Robot arm	

» BUNKER Tracked Differential Steering Series

BUNKER MINI 2.0: Miniature Tracked Chassis

Compact robot for navigating complex terrain and narrow environemnts.

- IP67 Solids Protection/Waterproof
- Better Climb Capability
- 120mm Obstacle Surmounting Capacity
- Zero Turn Radius
- High Payload Capability

Applications: Waterway surveying and mapping, mineral exploration, pipeline inspection, security inspection, photography, special transportation

Specifications

Category	Specification
Dimensions	690mmX570mmX335mm
Height	80mm
Weight	56kg
Maximum Payload	25kg
Battery	24V30Ah Lithium Battery
Charging Time	3-4h
Operating Temperature	-20°C~60°C
Power Drive	Left and right independent drive Track-type differential steering
Motor	250w*2 (Brushed DC Motor)
Obstacle Surmounting Capacity	115mm
Climb grade	30° (No payload)
Minimum Turning Radius	0m (In-situ Rotation)
Protection Level	IP67
Communication interface	CAN

» TRACER Two Wheels Differential Steering Series

TRACER: Drive-by-wire Chassis

Highly cost-effective development platform for indoor unmanned delivery applciations

- 100KG load capacity
- Flat design suitable for indoor applications
- Differential rotation capable of zero turn radius
- Swing arm suspension facilitates navigation over small obstacles
- Secondary development and external expansion supported

Applications: Industrial logistics robot, agricultural greenhouse robot, indoor service robots, etc.

"Panda greenhouse autonomous robot

Cobot Magic

Specifications

Category	Specification	
Dimensions (WxHxD)	685mm x 570mm x 155mm	
Weight	28Kg-30Kg	
MAX Speed	1.6m/s	
Minimum Ground Clearance	30mm	
Rated Load In Movement	100KG (Friction Coefficient 0.5)	
Climbing Ability	<8° (With Loading)	
Battery	24V / 15Ah (Standard)	24V / 30Ah (Optional)
Suspension form	Swing arm non-independent suspension	
Protection Level	IP22	
Certification	-	
Optional Accessories	IMU/Binocular depth camera/Automatic charging pile/LiDAR/Integrated inertial navigation RTK/Robotic arm/IPC	

TRACER Two Wheels Differential Steering Series

TRACER Mini: Indoor AGV

Highly cost-effective development platform, suitable for various applications

- 40KG super load capacity
- Autonomous path planning
- Autonomous stopping and obstacle avoidance
- Differential rotation, zero turning radius
- Secondary development and external expansion supported

Applications: ROS education, factory transport, indoor service robots, and inspection robots

Specifications

Category	Specification
Dimensions (WxHxD)	427mmX416mmX194mm
Weight	18Kg-20Kg
MAX Speed	1.6m/s
Minimum Ground Clearance	30mm
Rated Load In Movement	40KG (Friction Coefficient 0.5 Ground Test)
Climb grade	<15°
Battery	24V / 15Ah
Suspension form	Front Drive Rear Swing Suspension
Protection Level	IP22
Certification	-
Optional Accessories	IMU/Depth Camera/Automatic charging pile/LiDar/ Combined Inertial Navigation RTK/Robotics Arm/Industrial Computer

AUTOKIT:Open Source Autonomous Driving Development Kit

Autonomous driving development KIT based on the Autoware open source framework

- APP enabled real time panoramic monitoring
- Autonomous obstacle avoidance
- Autonomous path planning
- Rich open source software packages
- ROS-based application cases
- Detailed development documentation

Adding high precision antenna and VRTK

Standard autonomous driving open source development kit

Specifications

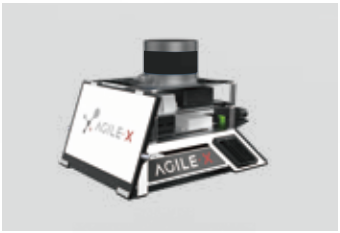
Category		Specification	
Standard Hardware Configuration	Model	AUTOKIT	AUTOKIT PRO
	Computer unit	ASUS VC66 (i7-9700/16G/512G)	APQ (I7-9700/32G/256G/1660) with 1660 graphics card
	Multi-beam LiDAR	RoboSense RS-Helios-16P	
	Communication module	Huawei 4G Router	
	LCD screen	14 inch IPS1920*1080	
	keyboard	Logitech K400 Plus	
	USB-HUB	UGREEN 12V 7hubs	
	Regulated Power Supply	24Vto24V10A、24Vto12V20A	
	Stand	pro	
	Depth camera	D435	
	RTK-GPS	-	StarNeto M2
	IMU	-	CH110
	Monocular camera	-	M3
Software Features	Control mobile robot chassis based on ROS, view 3D point cloud data based on RS16 radar, use Autokit to construct 3D point cloud map, and view 3D point cloud data, use Autokit to record and track waypoints, stop obstacles, and use hybrid A* for free navigation , Use Autokit for local local path planning		Added to the base version: Edit vector maps (lane markings, zebra crossings, curbs, etc.) Global Path Planning with Autokit (combined with vector map)

R&D Kit Pro: Education Development Kit

The ROS/Rviz/Gazebo/Nomachine ready development KIT customized for robotics education and industrial application development.

- High precision localization & navigation
- Autonomous 3D mapping
- Autonomous obstacle avoidance
- High-performance computing unit
- Complete development documents and DEMO
- All-terrain and high-speed UGV

R&D KIT LITE



R&D KIT PRO

Specifications

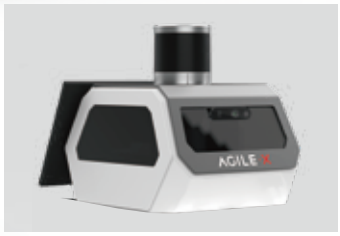
Category	Specification	
Model	SCOUT MINI LITE	SCOUT MINI PRO
Industrial control system	Nvidia Jetson Nano Developer Kit	Nvidia Xavier Developer Kit
LiDAR	High precision mid-short range LiDAR-EAI G4	RS -Helios-16p
Camera	Intel Realsense D435	
Monitor	Size: 11.6 inch; Resolution:1920 x 1080P	
Chassis module	SCOUT 2.0/SCOUT MINI/BUNKER	
Pre-installed system	Ubuntu 18.4 and ROS	

ROS2 EDU KIT

With the ROS2Foxy version as the core, it integrates vision, radar, motion control and other modules to provide a comprehensive robot development platform for education and scientific research.

- High precision localization & navigation
- Autonomous 3D mapping
- Autonomous obstacle avoidance
- High-performance computing unit
- Complete development documents and DEMO

ROS2 EDU KIT LITE



ROS2 EDU KIT PRO

Specifications

Name	Item	Model
 LITE	Computer unit	minipc i5 16G 256
	2D Lidar	G4
	Camera	RealSense D435
	Monitor	14 inch IPS 1920*1080 HDMI
	keyboard	k400 Plus
	Router	GL.iNet AR750s
	USB HUB	7-Port USB3.0 Hub / 12V
	Bracket	
	Regulated Power Supply	12V to 5V 15A
		24V (15-40V) to 12V/20A
 PRO	Computer unit	minipc i7 16G 512G
	3D LiDAR	RS -Helios-16p
	Camera	RealSense D435
	Monitor	14 inch IPS 1920*1080 HDMI
	Keyboard	k400 Plus
	Router	GL.iNet AR750s
	USB HUB	7-Port USB3.0 Hub / 12V
	Bracket	
	Regulated Power Supply	24V (15-40V) to 12V/20A
Chassis module		Scout 2.0/Scout mini/Hunter 2.0/Hunter se/ Bunker pro/Bunker/Bunker mini/Tracer/Tracer mini

≫ COBOT KIT: Mobile Manipulator

Multifunctional robot suitable for various applications including intelligent transportation, sorting and inspection.

- SLAM and Path Planning
- Autonomous navigation and obstacle avoidance
- Object recognition based on depth vision
- 6DOF manipulator components suite
- All-purpose/off-road chassis
- Complete ROS documentation and simulation demo

Specifications

Accessories	Accessories list
Computer unit	APQ industrial computer
Multi-line LiDAR	Multi-line LiDAR sensor
Camera	Realsense depth Camera
LCD module	Portable flat panel display USB-to-HUB cable
Power module	RSD-500B-48 power
Regulated Power Supply	24v (15-40v) to 12v/20A power supply 24v to 24v 10A
Communication module	B316-855 router USB3.0 to TYPE-C data cable 2M
Chassis module	BUNKER/SCOUT2.0 Aviation plug (with wire) Onboard controller

Features
ROS pre-installed in Industrial Personal Computer (IPC), and ROS nodes in all sensors and chassis
Navigation and positioning, mapping, and DEMO based on multi-line LiDAR
Motion control (including point and path control), planning, and staticobstacle avoidance based on robotic arm ROS node "Move it"
ROS control over robotic arm gripper AG-95
QR Code positioning, object color and shape recognition, and DEMO grasping based on Intel Realsense D435 binocular camera

≫ COBOT KIT PRO: Mobile Manipulator

High-performance autonomous cobot kit for educational robotics research and commercial application development

- SLAM and Path Planning
- Autonomous navigation and obstacle avoidance
- Object recognition based on depth vision
- 6DOF manipulator components suite
- All-purpose/off-road chassis
- Complete ROS documentation and simulation DEMO

Specifications

Accessories	Accessories list
Computing unit	APQ industrial computer
Multi-line LiDAR	Multi-line LiDAR sensor
	Sensor controller
LCD module	Portable flat panel display
	USB-to-HDMI cable
UBS-to-CAN module	
Power module	Switching DC-DC19~72V to 48V power supply
	DC-to-DC 12V24V48V power supply
	24v~12v step-down power module
Communication module	4G router
	4G router and antenna
Chassis module	Bunker/Scout2.0
	Aviation plug (with wire)
	Onboard controller

Features
ROS pre-installed in Industrial Personal Computer (IPC), and ROS nodes in all sensors and chassis.
Navigation and positioning, mapping, and DEMO based on multi-line LiDAR.
Motion control (including point and path control), planning, and staticobstacle avoidance based on robotic arm ROS node "Move it"
ROS control over robotic arm gripper AG-95
QR Code positioning, object color and shape recognition, and DEMO grasping based on Intel Realsense D435 binocular camera

» LIMO ROS2:The Multi-modal ®ROS Powered Robot Development Platform

World's first ROS mobile robot development platform integrating four motion modes,adaptable to a wider range of application scenarios than table-robot

Simulation Table

- Autonomous localization, navigation and obstacle avoidance
- SLAM & V-SLAM
- Flexible switch among four motion modes
- Fully expandable platform with ports
- Rich ROS packages and documents

Specifications

Product	Specification
Size	322*220*251mm
Weight	4.8KG
Payload	4KG
GC	24mm
Steering	40N · m
Max Speed	1m/s
Battery	10Ah 12V
OS	Ubuntu22.04
Version	ROS2 Humble

LIMO PRO:ROS2 Robotics Platform

An open-source mobile robot with a modular robotic arm, commonly used in education, research, competitions, and various applications.

- 3D mapping
- Autonomous driving
- Obstacle avoidance
- Visual recognition
- Orin Nano
- 2.5hours battery life

Simulation Table

Specifications

Product	Specification
Size	322*220*251mm
Weight	4.8KG
Payload	4KG
GC	24mm
Steering	40N·m
Max Speed	1m/s
Battery	10Ah 12V
OS	Ubuntu20.04
Version	ROS1 Noetic、ROS2 Foxy

LIMO COBOT KIT: ROS Robotics Platform

Open-source mobile robot with a modular robotic arm. Suitable for education, reserach, competitions, and other applications

- Navigation and obstacle avoidance
- SLAM Mapping
- Robotic arm for various applications
- Supports ROS, Python, C++, C#

Simulation Table

Specifications

Product	Specification
Weight	5.6KG
Navigation	Visual positioning, SLAM and Navigation
Precision	1-2cm
Arm Working Precision	0.5mm
Arm Working Radius	280mm
LIMO PRO Payload	4KG
Robotic arm Payload	250G
Communication	USB
	TYPE C

≫ COBOT S KIT

A general-purpose interactive robot
for countless everyday tasks

- 360°Omnidirectional Vision for seamless environmental perception
- Advanced AI for visual perception and object manipulation
- Continuously learns and adapts through real-world experiences
- Autonomous planning and decision-making

Specifications

Product	Specification
Size	738mmX500mmX1618mm
Weight	100KG
Ground clearance	107mm
Positioning Accuracy	±5cm
Battery	38V24A
Maximum Speed	1.6m/s
Gripper Load	5KG

≫ COBOT MAGIC

Open-Source Bimanual Mobile Manipulation with Whole-Body Teleoperation

- Whole-body teleoperation system
- Ultra-lightweight 6DoF robotic arms
- High-performance on-board computer
- 2-Wheel differential drive mobile robot
- Completes complex tasks via imitation learning

Tasks: pouring water, cooking, taking the elevator, packing away items

Specifications

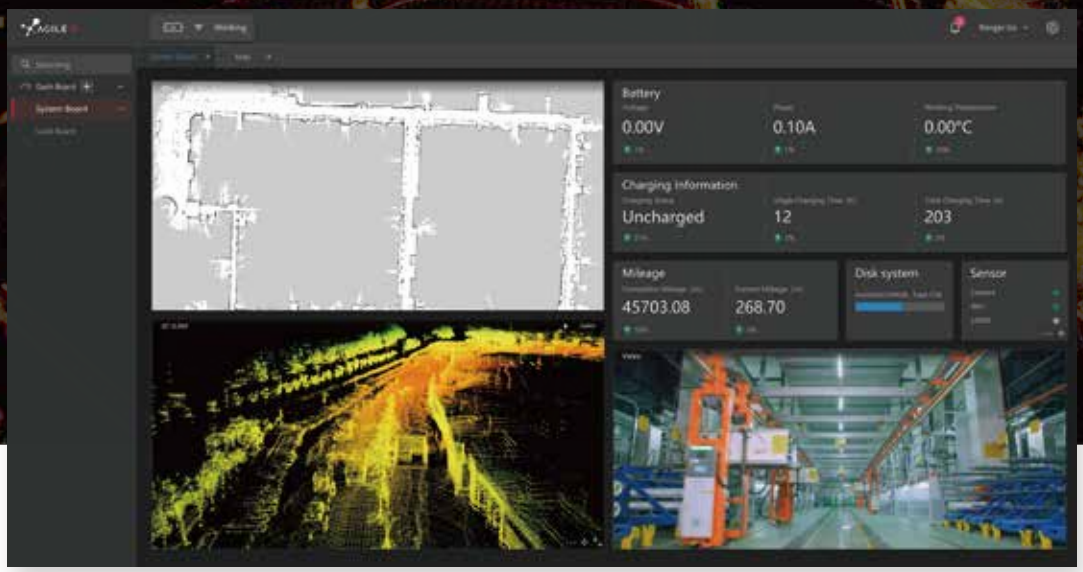
Component	Item Name	Model
Standard Configuration	Wheeled Mobile Robot	Tracer
	Depth Camera	Orbbec Dabai
	USB Hub	12V Power Supply
	6 DOF Lightweight Robot Arm X4	Customized
	Adjustable Velcro X2	Customized
	Grip Tape X2	Customized
	Power Strip	4 Outlet
	ALOHA Stand	Customized
Optional Configuration	NVIDIA Development Kit	Jetson Orin Nano Developer Kit (8G)
	On-board PC	APQ-X7010/GPU 4060/i7-9700-32g-4T
	IMU	CH110
	Display	11.6” 1080p

Automatic charging pile

Category		Parameters
Matched Battery Type		Lithium-Ion Battery
Charging Mode		CC/CV
Heat Sinking Method		Cool by Fan
Input	Range of Input Voltage	Rated range (200~240VAC) Adjustment range (200~264 VAC)When switching to 110V, the rated range is 100~120VAC
	Range of Input Frequency	47-63Hz
	Power Factor	PF>0.65/200-240VAC(when fully loaded)
	Efficiency	90%min.@220VAC
	Input AC Current	15Amax. @200Vac input & Full load 20Amax. @200Vac input & Full load
Output	Rated Voltage	54.75V
	Rated Current	20A
	Rated Power	1095W
	Voltage Precision	±0.2
	Standby Power	≤10W
Protection	Short Circuit/Reverse Battery Polarity	The power / battery is properly connected.
	Current /Over Load /Under voltage	Once the issue is resolved, normal operations can resume.
	Over Voltage	the voltage exceeds 1.15-1.25 times the rated level, the power supply safeguards itself and returns to normal when the issue is fixed.
	Over Temperature	When the transformer core temperature surpasses 85°C, the charger's current is halved. It goes back to normal once it cools down.
Environment	Operating Temperature	-25°C～+40°C
	Operating Humidity	10~95%RH, non-condensing. 10~95%RH, no condensation.
	Storage Temperature Humidity	-40° C~+80° C,10-95%RH
	Operating Altitude	2000m
	Non-Operating Altitude	10000m

AGILEX · NAVIS 3D Laser Navigation Kit

NAVIS is a full-scenario autonomous navigation system designed for semi-enclosed and fully enclosed environments. NAVIS uses LiDAR, depth cameras, and IMUs to construct scenes and for environmental perception. It integrates NAVIS Brain, NAVIS Bridge and NAVIS Board to visualize data, map the environment and manage tasks.



» Featured Functions

Human-machine interaction

User-friendly and interactive design facilitates operation across PC, mobile and tablets. Uesers can also manage robots, conduct task planning and path correction, and perform other scheduling tasks using its customisable operating interface.

Strong compatibility

NAVIS is highly compatible with all AGILEX ROBOTICS chassis, making it easy for users to connect and use their robots.

Multi-sensor fusion

NAVIS can be fitted with a variety of sensors, including LIDAR, a depth camera, and a radio-time-code (RTK), to enable intelligent path planning, autonomous obstacle avoidance, high-precision positioning, and navigation.

Management of maps

NAVIS enables 3D mapping and map editing, enabling users to select maps and alter virtual barriers and obstacles.

Collaboration work

NAVIS support local network collaboration. It is capable of tracking robots' status and operational environment in real time, including battery life, speed and location. It also enables dynamic adjustment of robot planning, and enables completion of multi-point tasks in an effective, stable and

Safety management

NAVIS can detect and avoid obstacles in real-time. It incorporates a number of safety features, including a light alert and emergency stop buttons.

» Application Scenarios

Security Patrols

Smart Factories

Warehouse Logistics

Customer Use Cases

» Environmental Remediation





» Engineering Surveying







» Agricultural Applications





Industrial Applications






Logistics Distribution




University Research









» Security Patrol

Trusted By Customers

DU PENG, HUAWEI HISILICON ASCEND CANN ECOSYSTEM EXPERT

"The AgileX Mobile Robot Chassis demonstrates excellent mobility and performance in crossing obstacles. Its standard development interface enables the quick integration of autonomous software and hardware "

ZUXIN LIU, DOCTORAL STUDENT AT SAFETY AI LAB AT CARNEGIE MELLON UNIVERSITY (CMU AI LAB)

"The AgileX ROS developer suite provides a combination of open-soure algorithms, high-performance IPC, various sensors"

HUIBIN LI, ASSISTANT RESEARCHER AT CHINESE ACADEMY OF AGRICULTURAL SCIENCES (CAAS)

"The AgileX SCOUT 2.0 is a mobile chassis with advantages in outdoor off-road climbing, heavy-load operation, heat dissipation and secondary development, which greatly promotes the realization of intelligent agricultural inspection, transportation and management functions."

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