

RANGER **MINI2.0**

- 4-Wheel Independent Steering
- 4-Wheel Independent Suspension
- Multiple Moving Modes
- IP54 Dust-proof and Waterproof
- Hot Swap Modular Battery System
- Secondary Development Supported



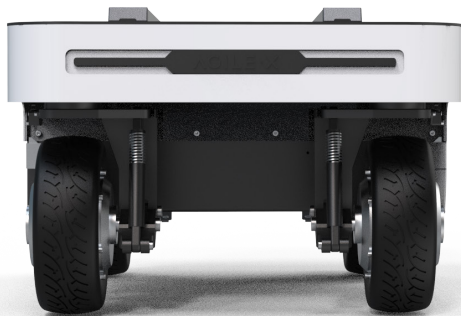
» Motion Control of 4WD Omnidirectional robot

The RANGER mini 2.0 is an upgraded version of the original RANGER mini. It provides an innovative design for a mobile robot that would operate within the context of an industrial application. It has flexible steering, strong maneuverability, a 0 turning radius, and can achieve 360° steering in situ by using 4*100W harmonic drives and 4*350W drive motor control systems.

- ▣ Four steering modes: (a) spinning (b) traverse (c) crab steering (d) Ackermann steering
- ▣ Waterproof and dustproof to IP54



» Independent suspensions offer more flexibility



RANGER mini 2.0 adopts a four-wheel independent suspension system with a load capacity of 80 kg, which can effectively improve the robot's maneuverability, pass-ability, and safety. It has the ability to adapt to difficult fields of various industry scenes, with an over 15° slope and 80 mm over ridge.

- ▣ The Ranger mini 2.0 has 107 mm of ground clearance and strong obstacle-crossing capabilities.
- ▣ 15° full-load climb and 80 kg load-bearing capacity.
- ▣ Independent four-wheel suspension enable the individual wheels to respond to varying road conditions.

» Module development, fast charging and battery swapping

RANGER mini 2.0 has a small size, high compatibility, long battery life, and is simple to maintain. It is outfitted with a variety of software and hardware interfaces and supports a wide range of top component applications. It also supports fast charging and hot swapping functions to ensure that the robot always has power.

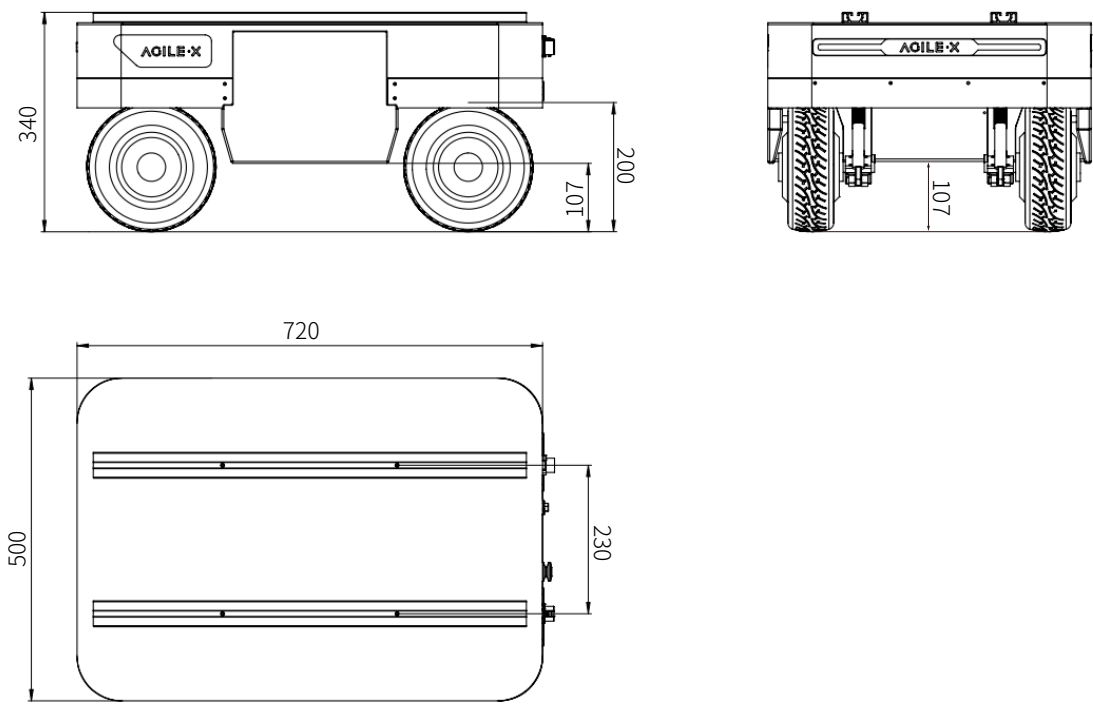
- ▣ The battery life can last up to 7 hours when fully loaded.
- ▣ An hour of charging can cover 30 kilometers.
- ▣ Replacing the hot-swap batteries is simple and practical.



» Specifications

Model	RANGER mini 2.0
Size	738mm×500mm×338mm
Wheelbase	494mm
Tread	364mm
Overall Mass	63KG
Maximum Speed	6km/h
Ground Clearance	107mm
Minimum Turning Radius	0mm
	Spin mode
Wheel Hub Radius	100mm
Brake Type	Electronic brake
Rated Load In Movement	80KG
Maximum Slope	15°(with load)
Steering Type	Four wheel independent
Maximum Mileage	35KM

Drive Type	In-wheel motor
Cooling Type	Air-cooled
Operating Temperature	—10~40°
Charger	54.75V20A
Charging Time	1.5H
Voltage	48V
Power Battery Type	Lithium iron phosphate
Battery	48V24AH
External Power Supply	48V
Motor	4 x 100 W steering and 4 x 350 W driving
Communication Interface	Standard CAN
Suspension Type	Swing arm suspension
Protection Level	IP54
Maximum Battery Life	7~8h





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