INDRO ROBOTICS



RANGER MINI 2.0

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

RANGER MINI 2.0

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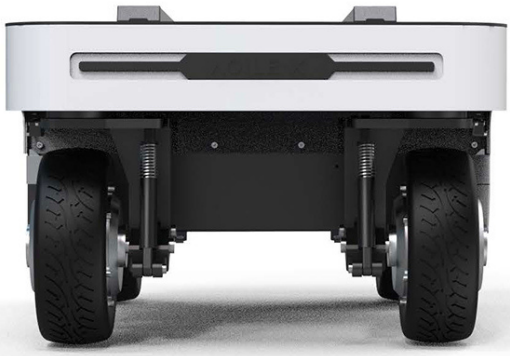
MOTION CONTROL OF 4WD OMNIDIRECTIONAL ROBOT

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 for a variety of indoor or outdoor applications. 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: spinning, traverse, crab steering and 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 of ground clearance and strong obstacle-crossing capabilities.
- 15° full-load climb and 80kg load-bearing capacity.
- Independent four-wheel suspension enables 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.



- Battery life can last up to 7 hours when fully loaded.
- An hour of charging can cover 30KM
- Replacing the hot-swap batters is simple and practical.

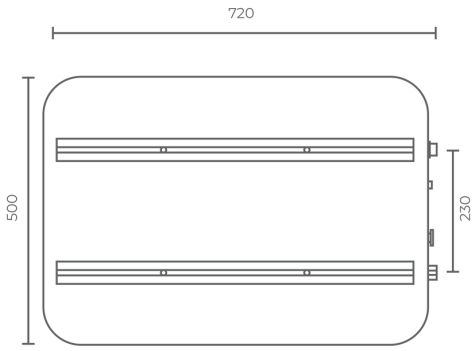
RANGER MINI 2.0

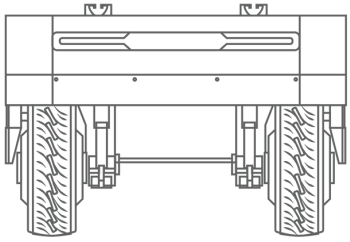
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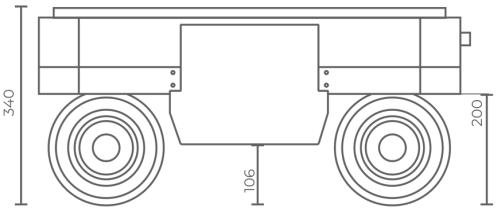
SPECIFICATIONS

Model	Ranger Mini 2.0
Size	738x500x338
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

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	4x 100 W steering and 4x 350 W driving
Communication Interface	Standard CAN
Suspension Type	Swing Arm
Protection Level	IP54
Maximum Battery Life	7~8h







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