



# SCOUT 2.0

- | Four-Wheel Drive
- | Independent Suspension
- | Cooling System
- | External Expansion
- | Secondary Development

## » Steer-by-wire Chassis

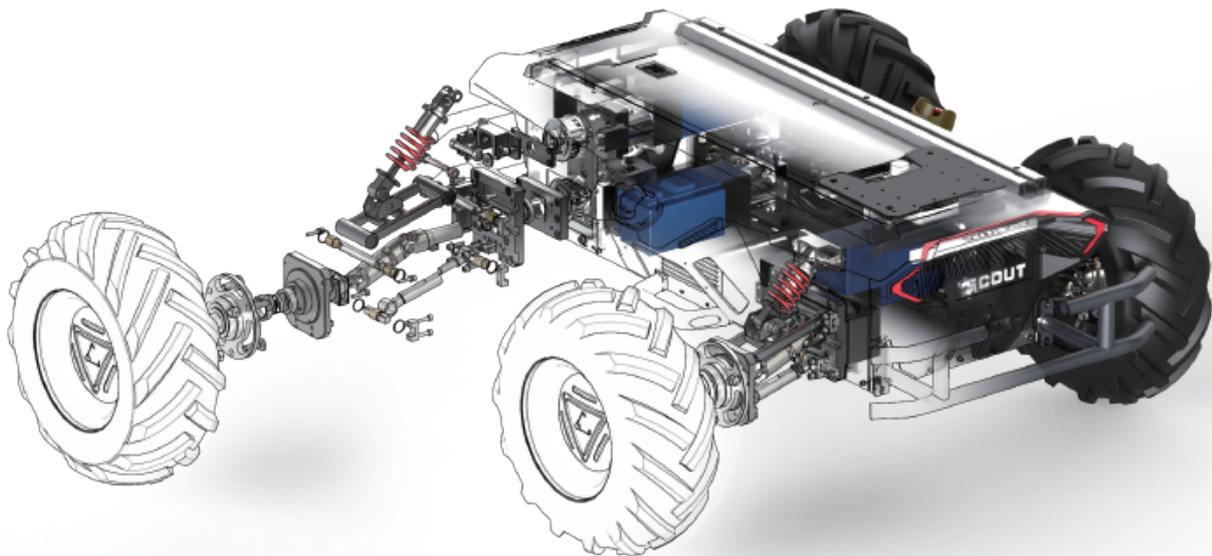
SCOUT is an outdoor mobile base designed for industrial applications. SCOUT2.0, with remolded structure design, under the newly upgraded cooling system and safety system, still adheres to the concept of being suitable for any application environment. The more compact design expands the indoor scenarios again; the independent suspension can adapt to various rugged paths; the zero turning radius can easily control the narrow environment; and the standardized protocols and interfaces facilitate rapid secondary development.

This mobile base can be used for inspection, transportation, teaching and other scenarios by installing different upper loads and navigation systems. It has the characteristics of standardization and modularization, it presents the best mobile platform solution for you.



## » Structural Advantages

The core of the structural design of SCOUT series is always compact. Under the premise of guaranteed function, the body size of SCOUT2.0 is reduced by 25% from that of SCOUT1.0, adding infinite possibility to its application environment again: its compact body can enter the ordinary elevator room; it can realize the free switching between indoor and outdoor; it is suitable for any car trunk; it can be quickly put into use on the site.



SCOUT2.0 carries forward the four-wheel drive feature of SCOUT1.0. Each wheel adopts independent 400w brushless servo motor and adopts double-transverse arm independent suspension, which can greatly improve the adaptability of the body to the terrain while ensuring the power, and ensure the stability and anti-interference ability of the load. As a result, it can easily surmount 10cm obstacles and work easily in the outdoor environment.

## » Upgrading of Cooling System



In respect of the fully upgraded cooling system of SCOUT2.0, the internal and external circulation cooling systems are integrated; and the heat conduction module is additionally provided with directional cooling for driving module and power unit. Under the premise of ensuring the IP level of protection of the body, a strong fan module is provided, effectively improving the operating duration of the chassis and adapting to the high-temperature environment. There are also real-time temperature monitoring and other security measures, providing more secure and reliable protection for the chassis in real time.

## » External Expansion and Secondary Development Supported

SCOUT2.0, with independent BCDC Driver control system, can accomplish its own motion control, and can customize the complex operation mode. The master control provides serial port / standard CAN busbar as the communication interface and provides open source SDK, ROS\_PACKAGE.



A bus interface is reserved around the body, and the top design with standard aluminum profiles is convenient for customers to match and access a series of external equipment such as differential GPS, binocular camera, laser radar, infrared/ultrasonic obstacle avoidance sensor, etc., allowing customers to complete customized in-depth secondary development.

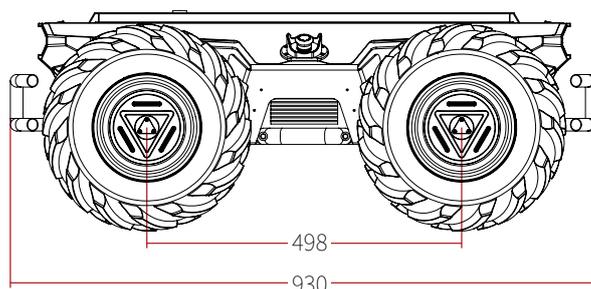
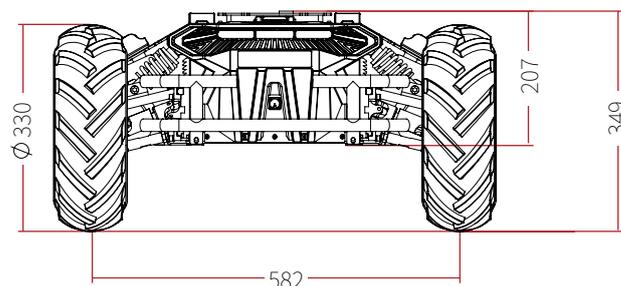
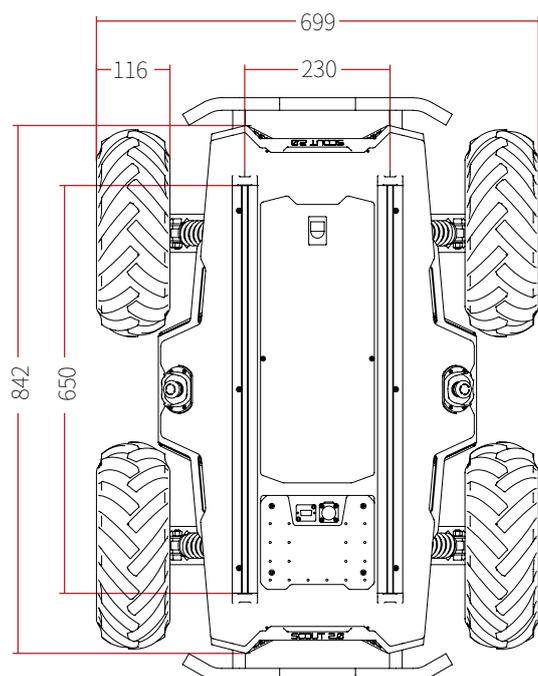
SCOUT 2.0 also supports access to more advanced self-driving systems, such as ROS, Baidu Apollo, etc., which can be used as a mobile platform for application development.



## » SPECIFICATION

Model	SCOUT 2.0
Dimensions	930mmx699mmx349mm W x H x D
Wheelbase	498mm
Front/rear wheel base	582mm
Gross Vehicle Weight	68KG (±0.5)
MIN Ground Clearance	135mm
Rated Progressive Load	50KG Friction coefficient 0.5 ground test
MAX speed	6km/h
MIN Turning Radius	0m
Gradability	<30° with loading
Obstacle-Surmounting Performance	15cm
MIN Braking Distance	0.2m 6km/h -> 0km/h
Braking System	Servo Brake

MAX Working Range	15km
Drive System Form	Four Wheel Independent Drive Four Wheel Differential Steering
Suspension Form	Front Double Wishbone-Independent Suspension Rear Double Wishbone- Independent Suspension
Safety Precautions	Collision Avoidance Tube
Working Temp	0~40°C
Charger	AC 220V Independent Charger
Charging Period	2.5~3H
Voltage	24V
Battery	24V / 30Ah
Motor	4 x 400W Brushless Servo Motor
Code Wheel	2500 Lines Magnetic Incremental Encoder
System Interface	Standard CAN 232 Serial Port
Protection Level	IP22 Customizable IP44 IP64



» Success Case of Customer > Park Logistics



Based on SCOUT chassis and self-driving technology, with laser scanner, binocular camera and ultrasonic sensor to construct multi-sensor fusion navigation system, it can complete timely and accurate logistics delivery task in semi-closed environment such as park, factory area, etc., realize unmanned operations, reduce manpower input and improve logistics efficiency.

» Success Case of Customer > Security Patrol

It is the security robot based on SCOUT chassis and security inspection system and suitable for indoor and outdoor inspection through quick secondary development. The solution is mainly composed of camera, central control computer, GPS, laser and microphone audio. It can realize video recording and playback, real-time face recognition, voice intercom, remote control and so on. Moreover, APP programs can be customized according to the scenario requirements.



» Optional accessories



RTK-GPS



Multi-line lidar



4G/5G  
Remote control package



4G/5G Simulation Cockpit



Infrared temperature  
measuring module



Magnetic trace module



Disinfection suit



Autowalker



LinkedIn



Youtube

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