Robotnik

SUMMIT XL STEEL

SUMMIT XL STEEL is a mobile platform with an excellent mechanical steel structure that allows carrying heavy loads up to 130 Kg.

Product

SUMMIT XL STEEL is a robotic platform for application development (logistics, indoor transport, etc.). It has a robust design and can carry up to 130 Kg payload.

The mobile platform has skid-steering / omnidirectional kinematics based on 4 high power motor wheels. Each wheel integrates a hub brushless motor with gearbox and encoder (optional). The odometry is computed with the use of a high precision inertial measurement unit mounted inside the chassis and the wheel velocity.

The mobile robot can navigate autonomously or teleoperated by means of a PTZ camera that transmits video in real time.

The common sensor options include a Hokuyo laser scanner and a range of RTK-DGPS kits. It also has internal (USB, RS232, GPIO and RJ45) and external connectivity (USB, RJ45, power supplies 5, 12 VDC and battery) to add custom components easily.

Summit XL STEEL uses the ROS open architecture (http://www.ros.org).

The ROS framework defines a well organized robot software architecture and includes hundreds of user-contributed packages and sets of packages that implement functionalities such localization and mapping, planning, manipulation, perception, etc.

Applications

- Logistics
- Indoor transport
- Research and education
- Surveillance and monitoring

SUMMIT XL

Steel

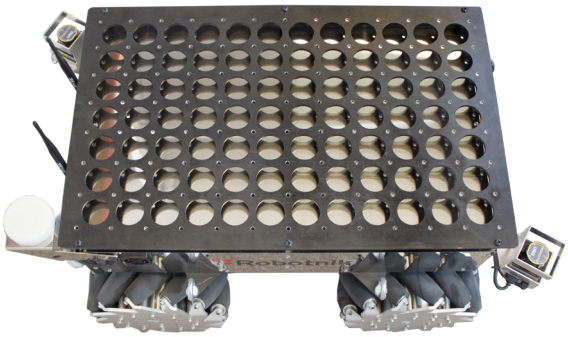
Technical specifications
(Configuration with omnidirectional wheels)

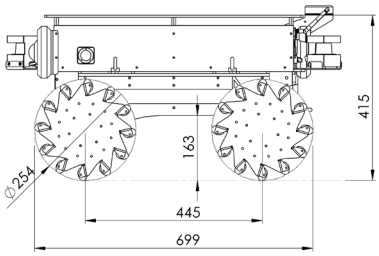
Mechanical

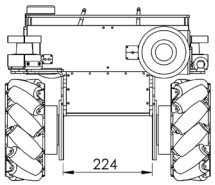
Dimensions	699 x 515 x 415 mm
Weight	90 Kg
Payload	130 Kg
Speed	3 m/s
Enclosure class	IP 54 / 65
Autonomy	10 h. continuous motion 40 h. standard lab use
Batteries	16x3.3V LiFePO4
Traction motors	4x500 W brushless servomotors
Temperature range	0º to +50ºC
Max. climbing angle	30º

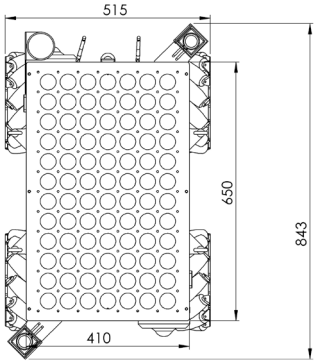
Control

Controller	Open architecture ROS Embedded PC with Linux (Intel BayTrail J1900 or similar)
Communication	WiFi 802.11n
Connectivity	Internal: USB, RS232 and GPIO External: USB, RJ45, power supplies 5, 12 VDC and battery









ROS.org

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