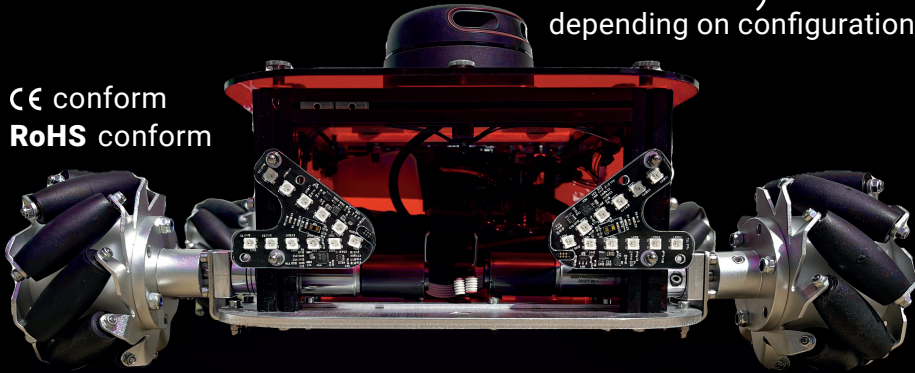


Datasheet

R&D Platform „Eduard“

4.894,90€
depending on configuration

CE conform
RoHS conform



Introducing our advanced mobile robot platform designed specifically for research, development and product verification. This system offers extensive hardware and software expansion capabilities, with components designed to provide countless interface options and configurations.

Primary applications

- Improve development efficiency
- Educational tool for mobile robotics and essential electronics
- Compact counterpart for research and development of large-scale transportation robots
- Investigation of sensor performance
- Review and analysis of algorithms
- Examination of actuator functionality
- Profitability assessment of automated guided vehicles
- Assessment of fleet management systems

EduArt

Programming variations

Whether you want to test new sensor systems or enhance your software capabilities, our mobile robot platform has you covered. Programming the robot is flexible and allows multiple approaches. The typical method involves extending the ROS1 or ROS2 setup with nodes written in either Python or C++. These nodes can be self-coded or installed directly from the rich repository of the open source community.

In addition, NodeRED, a graphical low-code JavaScript environment, provides access to the robot's built-in sensors and actuators. Our platform is designed for developers of all skill levels and promotes broad software compatibility across multiple entry points.

Technical Data

Connectivity options	▪ Wireless network (WiFi) ▪ Wired network (Ethernet) ▪ Universal Serial Bus (USB 3.0 & 2.0) ▪ 2 x Controller Area Network (CAN) ▪ Bluetooth 4.0 ▪ [Arduino UNO compatible GPIOs: I / O, I²C, SPI, UART]
Integrated sensors	▪ 4 × Time-of-Flight distance sensors (ToF) ▪ 6 DOF inertial measurement unit (IMU) ▪ Voltage monitoring ▪ Temperature measurement ▪ Build-in high precision incremental encoder
Operating time	▪ Up to 4 h of driving time
Charging time	▪ 3 h
Kinematics	▪ Skid steering (off-road tires) ▪ Mecanum steering (omnidirectional)

Bluetooth-controller	- PlayStation® 5 controller - Additional: Steam Deck
Max. speed	Mecanum: 0.32 m / s Off-Road: 0.56 m / s
Payload	Off-Road: 5 kg Mecanum: 10 kg
Available voltage outputs	19 V DC 12 V DC 5 V DC - Battery voltage (around 17.5 V – 30 V)
Battery specification	4.5 Ah Nickel-Metal Hydride (NiMH)
Size [L × W × H]	420 mm × 380 mm × 210 mm
Weight	7.6 kg

Embedded and operating sytem variations

Eduard IOT	- Siemens SIMATIC IOT2050 Advanced - Debian 10 Buster
Eduard IPC	- Siemens IPC127E, IPC227E or IPC227G - Debian 10 Buster or Edge Runtime
Eduard Raspi 5	- Raspberry Pi 5 - Latest Pi OS

For more information, including configuration options and pricing, please visit our website or contact us directly.



Contact

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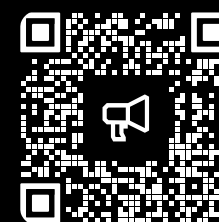
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Then get in touch.

