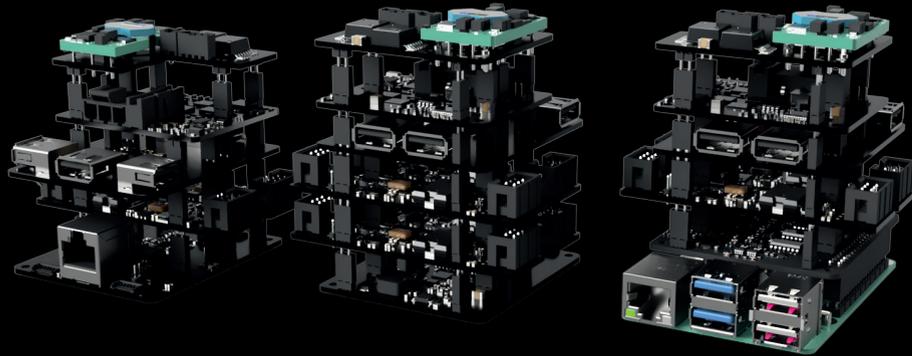


# Datasheet

## Kinematics Kit „Kim“



Introducing our Kinematics Kit „Kim“, the gateway to crafting personalized robots with unmatched mechanical flexibility. With „Kim“, you're not just building a robot; you're sculpting an innovative creation that reflects your unique vision.

At the heart of the kit lies either Ethernet compatible adapter board or Raspberry Pi compatible adapter board, the raspberry pi compatible adapter board, seamlessly integrating with your setup for effortless connectivity. Motor control becomes a breeze with direct plug-in compatibility for up to 8 encoder DC motors, granting you precise command over your robot's movements.

Power management is streamlined with the included module featuring on/off logic and efficient battery pack management allowing Hot Plug connectivity.

Say goodbye to power concerns and hello to uninterrupted experimentation.

Additionally, the auxiliary power supply module elevates your capabilities by offering supplementary voltage levels for extra devices, expanding the horizons of what your robot can achieve.

# EduArt

## Primary applications

- Educational robotics projects
- Prototyping and experimenting with robotic designs
- STEM learning environments
- Hobbyist robot enthusiasts
- Research and development in robotics hobbyists and enthusiasts
- Demonstrations and exhibitions in science and technology events

## Technical Data

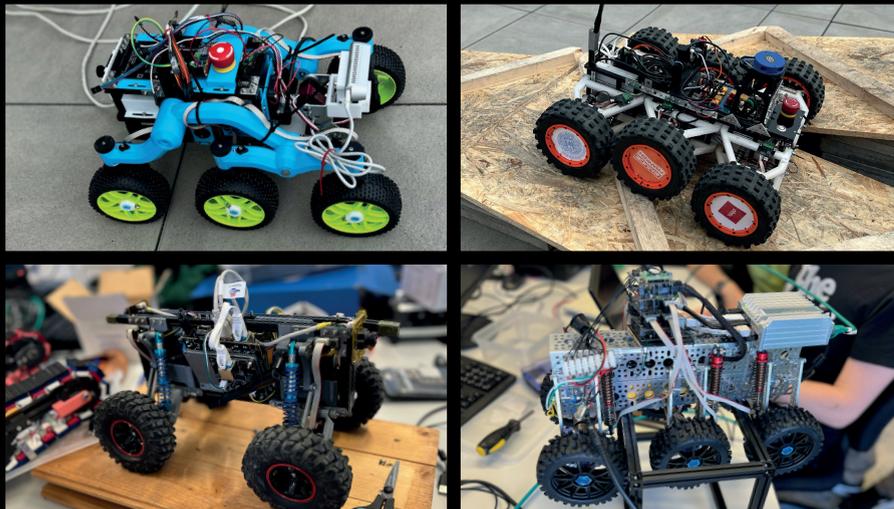
<b>Connectivity options</b>	<ul style="list-style-type: none"><li>▪ Wired network (Ethernet)</li><li>▪ Controller Area Network (CAN)</li></ul>
<b>Integrated sensors</b>	<ul style="list-style-type: none"><li>▪ 6 DOF inertial measurement unit (IMU)</li><li>▪ Voltage monitoring</li><li>▪ Temperature measurement</li><li>▪ Current measurement</li></ul>
<b>Kinematics</b>	<ul style="list-style-type: none"><li>▪ 1 to 4 larger motors (<math>I_{RMS}</math> up to 5 A) and / or</li><li>▪ 1 to 8 smaller motors (<math>I_{RMS}</math> up to 2.5 A)</li></ul>
<b>Available voltage outputs</b>	<ul style="list-style-type: none"><li>▪ 24 V DC   12 V DC   5 V DC</li><li>▪ Battery voltage (between 17 V – 30 V)</li></ul>
<b>Battery specification</b>	<ul style="list-style-type: none"><li>▪ 4.5 Ah Nickel-Metal Hydride (NiMH)</li></ul>
<b>Battery management</b>	<ul style="list-style-type: none"><li>▪ Designed for 19.2 V Nickel-Metal Hydride (NiMH) battery</li></ul>
<b>Motor connection sockets</b>	<ul style="list-style-type: none"><li>▪ Pinheader (2.54 mm x 6)</li><li>▪ Tub bushing WSL 6</li></ul>
<b>Logic Connection</b>	<ul style="list-style-type: none"><li>▪ Power Switch</li><li>▪ On Button</li><li>▪ E-Stop (not safety certified)</li><li>▪ Charging connector for Battery (30 V / 1.5 A)</li></ul>

<b>Software</b>	<ul style="list-style-type: none"> <li>▪ Open Source</li> <li>▪ edu_drive_ros2; edu_robot</li> </ul> 
<b>Size [W x H x T]</b>	<ul style="list-style-type: none"> <li>▪ 80 mm × 65 mm × 80 mm</li> </ul>
<b>Accessory</b>	<ul style="list-style-type: none"> <li>▪ Connectivity cables</li> <li>▪ Connectivity plugs</li> <li>▪ Battery</li> <li>▪ Battery charger</li> </ul>

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

## Usage in the educational project RobotsUnite(!)

This educational project promotes inter-school collaboration. Each school develops an individual robot (team „Robotics“ and challenging obstacles / tasks (team „Challangers“). No single robot can solve the given tasks alone. Thus, student teams from several schools must join forces. The project title „Robots unite“ has two very different but appropriate meaning: „Robots unite!“ = „Robots, unite!“ or „Robots unite (pupils).“



# Contact

EduArt Robotik GmbH

Brückenstr. 20  
91233 Neunkirchen a. Sand  
Germany

+49 9153 6 98 98 00

+49 9153 6 98 98 01

[www.eduart-robotik.com](http://www.eduart-robotik.com)



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