

NimbRo AdultSize Robot Data Sheet 2024

Dmytro Pavlichenko, Grzegorz Ficht, Luis Denninger, Vitalii Tutevych,
Michael Schreiber and Sven Behnke

Rheinische Friedrich-Wilhelms-Universität Bonn
Computer Science Institute VI, Autonomous Intelligent Systems
Endenicher Alle 19A, 53115 Bonn, Germany

{ pavlichenko | ficht } @ ais.uni-bonn.de
<http://www.nimb-ro.net>

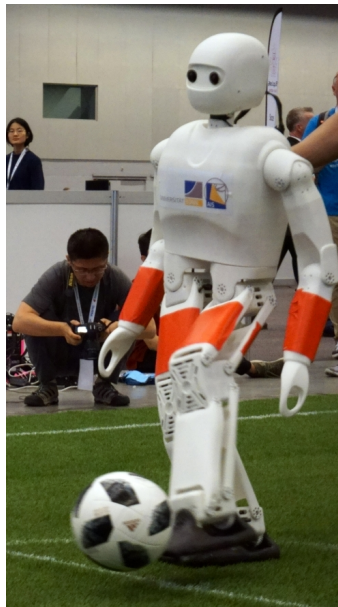


Fig. 1. The NimbRo-OP2X robot.

- **Robot name:** NimbRo-OP2X
- **Height:** 134.5 cm
- **Weight:** 19.0 kg
- **Walking speed:** Omnidirectional walking, up to 0.5 m/s
- **Degrees of freedom:** 18 DOF (5 per leg, 3 per arm, 2 in the neck)
- **Type of motors:** Robotis Dynamixel XM-540
- **Processor:** Intel Core i7-8700T and Nvidia RTX A2000
- **Cameras:** Logitech C930e USB camera with a custom wide-angle lens
- **Sensors:** 3-axis accelerometer (LIS331DLH chip) and 3-axis gyroscope (L3G4200D chip)
- **Material:** PA12 Nylon, made with SLS 3D-printing technology
- **Battery:** 4-cell LiPo, 99.2Wh, 6700mAh, 14.8V

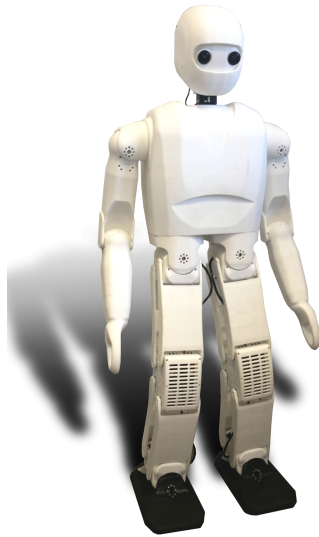


Fig. 2. The Nimbro-OP2 robot.

- **Robot name:** Nimbro-OP2
- **Height:** 134.5 cm
- **Weight:** 18.0 kg
- **Walking speed:** Omnidirectional walking, up to 0.5 m/s
- **Degrees of freedom:** 18 DOF (5 per leg, 3 per arm, 2 in the neck)
- **Type of motors:** Robotis Dynamixel MX-106R
- **Processor:** Intel Core i7-7700HQ and NVIDIA GeForce GTX 1060
- **Cameras:** Logitech C905 USB camera with a custom wide-angle lens
- **Sensors:** 3-axis accelerometer (LIS331DLH chip) and 3-axis gyroscope (L3G4200D chip)
- **Material:** PA12 Nylon, made with SLS 3D-printing technology
- **Battery:** 4-cell LiPo, 99.2Wh, 6700mAh, 14.8V