

NimbRo TeenSize Robot Data Sheet

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<http://www.nimbro.net>



Fig. 1. The igus Humanoid Open Platform

- **Robot name:** igus Humanoid Open Platform
- **Degrees of freedom:** 20 DOF (6 per leg, 3 per arm, 2 in the neck)
- **Type of motors:** Robotis Dynamixel MX-106 ($\times 12$) and MX-64 ($\times 8$)
- **Processor:** Intel Core i7-4500U CPU (dual-core, 1.8 GHz up to 3.0 GHz) or AMD A8-5545M APU (quad-core, 1.7 GHz up to 2.7 GHz)
- **Walking speed:** Omnidirectional walking, TBD
- **Cameras:** Logitech C905 USB camera with a custom wide-angle lens
- **Sensors:** Robotis CM730 with onboard 3-axis accelerometer, gyroscope and magnetometer
- **Other specs:** Height 90 cm, weight 6.6 kg, 3D printed

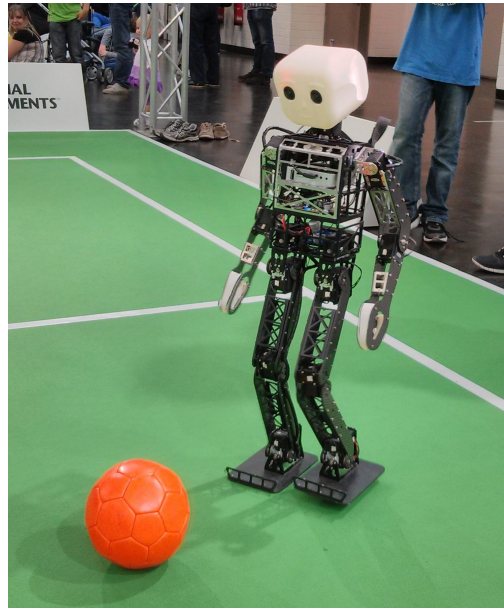


Fig. 2. The Nimbro-OP robot

- **Robot name:** Nimbro-OP
- **Degrees of freedom:** 20 DOF (6 per leg, 3 per arm, 2 in the neck)
- **Type of motors:** Robotis Dynamixel MX-106 ($\times 12$) and MX-64 ($\times 8$)
- **Processor:** ZBOX nano XS AD11 with AMD E-450 (dual-core, 1.65 GHz)
- **Walking speed:** Omnidirectional walking, TBD
- **Cameras:** Logitech C905 USB camera with a custom wide-angle lens
- **Sensors:** Robotis CM730 with onboard 3-axis accelerometer, gyroscope and magnetometer
- **Other specs:** Height 95 cm, weight 6.6 kg



Fig. 3. The Nimbro robot Copedo

- **Robot name:** Copedo
- **Degrees of freedom:** 17 DOF (5 per leg, 3 per arm, 1 in the neck)
- **Type of motors:** Robotis Dynamixel EX-106+, EX-106, RX-64 and RX-28
- **Processor:** Sony Vaio VGN-UX1XN ultra-mobile PC with Intel core solo U1500 (single core, 1.33 GHz)
- **Walking speed:** Omnidirectional walking, up to 40 cm/s
- **Cameras:** WVGA USB camera IDS uEye UI-1226LE with wide-angle lens
- **Sensors:** 2-axis accelerometer (ADXL203, ± 1.5 g) and two single axis gyroscopes (ADXRS, ± 300 deg/s)
- **Other specs:** Height 114 cm, weight 8.0 kg



Fig. 4. The NimbRo robot Dynaped

- **Robot name:** Dynaped
- **Degrees of freedom:** 13 DOF (5 per leg, 1 per arm, 1 in the neck)
- **Type of motors:** Robotis Dynamixel EX-106 and RX-64
- **Processor:** Sony Vaio VGN-UX1XN ultra-mobile PC with Intel core solo U1500 (single core, 1.33 GHz)
- **Walking speed:** Omnidirectional walking, up to 40 cm/s
- **Cameras:** WVGA USB camera IDS uEye UI-1226LE with wide-angle lens
- **Sensors:** 2-axis accelerometer (ADXL203, ± 1.5 g) and two single axis gyroscopes (ADXRS, ± 300 deg/s)
- **Other specs:** Height 105 cm, weight 7.5 kg