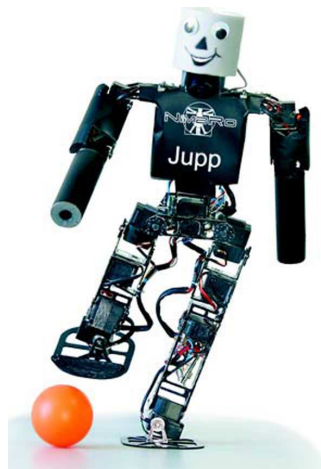


# NimbRo KidSize 2006 Specifications

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KidSize robot Jupp of team NimbRo.

- Name of robots: Jupp and Sepp
- Height: 60cm
- Weight: 2.3kg
- Walking speed: up to 25cm/s
- Number of degrees of freedom (DOF): 19

## Actuators:

- Futaba S9152 digital servo
  - 5× per leg and 1× in the trunk
  - Torque: 200 Ncm
  - Speed: .19 sec/60°
- JR DS8811 digital servo
  - 1× per leg (hip yaw)
  - Torque: 190 Ncm
  - Speed: .12 sec/40°

- Simprop SES640 analog servos
  - 3× per arm
  - Torque: 64 Ncm
  - Speed: .092 sec/40°

**Sensors:**

- Lifeview FlyCam 1.3M CF-camera
  - Resolution: e.g. 320×240
  - Frame rate: 5 fps
  - Optics: ultra-wide-angle lens
- Analog Devices dual-axis accelerometer ADXL203
  - Range: ±1.5g
- Analog Devices rate gyros ADXRS 150/300
  - Range: ±150/300 deg/s
- Devantech CMPS03 electronic compass
  - Resolution: 0.1°

**Processing boards:**

- Fujitsu Siemens Computers Pocket Loox 720
  - Processor: Intel PXA-272
  - Speed: 520MHz
- Elektronikladen ChipS12 board
  - 3× (in each shank and in the chest)
  - Processor: Motorola MC9S12C32
  - Speed: 24MHz