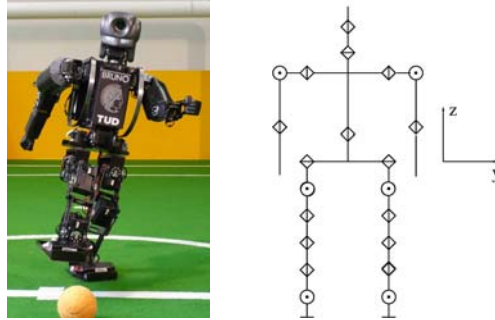


Darmstadt Dribblers KidSize Robot 2010



Autonomous humanoid robot *Bruno* kicking a ball (left, with designed head) and kinematical structure of the robot (right).

Height:	57.5 cm
Weight:	3.34 kg
Walking speed:	0.4 m/s (max)
Degrees of freedom:	21 in total with 6 in each leg, 3 in each arm, 1 in the waist, 2 in the neck
Servo motors:	18 Robotis RX-28 3 Robotis RX-64
Sensors:	
Camera	Philips SPC 1300 NC
Resolution	up to 1.3 MP
Color space	YCbCr
Frame rate	up to 90 fps
Angle	80°
Joint angle encoder	21 (integrated in servos)
Gyroscope (body)	Silicon-Sensing CRS03-04, 3 axes
Accelerometer	Analog Devices ADXL330, 3 axes
Control frequency:	100 Hz
Microcontroller board:	
Manufacturer	Hajime Research Institute Ltd.
Processor	32bit μ C SH2/7211
Speed	160 MHz
Onboard PC:	
Processor	Intel Atom Z530 1.6 GHz
RAM	1 GB DDR2
Operating system	Linux
LAN	Gigabit Ethernet
WLAN	802.11 a/b/g
Mass storage	2 GB SATA Flashdisk
Batteries:	Li-poly 18.5 V, 2100 mAh

Technical data of the 2010 humanoid kid size robot of Darmstadt Dribblers.