

Bogobots-TecMTY humanoid kid-size team 2012

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Abstract. This document lists the specifications of robot Bogobot V2 of team Bogobots-TecMTY.

Keywords: Humanoids, perception systems, walking-speed.

Robot Specification



Robot name: Bogobot V2
Height, Width, Deep and Weight: 52cm, 18cm, 12cm, 3.5Kg.
Walking speed: 22cm/seg.
DOF: Total 18DOF: 5 per leg, 3 per arm and 2 on head
Type of motors: 10 Dynamixel RX-28 and 8 Dynamixel RX-24F.
Computing unit(s): FitPC2 @2GHz, 2GB RAM, SSD, with WiFi
Camera(s): HD RocketFish webcam @ 25 fps.
Sensors: ITG-3200 dual-axis gyroscope, ADXL345 Accelerometer and HMC6352 Compass.
Built with: Dynamixel brackets, custom-made aluminum and carbon-fiber.
Energy Supply: Li-Po 14.8V, 3900mAh.

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Abstract. This document lists the specifications of robot Bogobot V1 of team Bogobots-TecMTY.

Keywords: Humanoids, perception systems, walking-speed.

Robot Specification



Robot name: Bogobot V1
Height, Width, Deep and Weight: 45cm, 17cm, 10cm, 2.5Kg.
Walking speed: 12cm/seg
DOF: Total 20DOF: 6 per leg, 3 per arm and 2 on head
Type of motors: Hitec 14 servomotors HSR-5990TG, 4 servomotors HSR-8498HB and 2 servomotors HS-5645MG.
Computing unit(s): Roboard with WiFi
Camera(s): 320*240 Logitech webcam @ 10fps.
Sensors: IDG300 dual-axis gyroscope, ADXL330 Accelerometer
Built with: Lynxmotion brackets and custom-made aluminum
Energy Supply: Two batteries: Li-Po 1.3Ah 12v, Li-Po 2.6 Ah 7.4v

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Abstract. This document lists the specifications of robot xBioloid of team Bogobots-TecMTY.

Keywords: Humanoids, perception systems, walking-speed.

Robot Specification



Robot name: xBioloid
Height, Width, Deep and Weight: 45cm, 22cm, 15cm, 2.5Kg.
Walking speed: 8cm/seg
DOF: Total 20DOF: 6 per leg, 3 per arm and 2 on head
Type of motors: Dynamixel Ax18+.
Computing unit(s): FitPC2 with WiFi
Camera(s): HD IBM webcam
Sensors: One 3-axis gyroscope and one 3-axis accelerometer
Built with: Plastic Dynamixel and aluminum Dynamixel-like brackets
Energy Supply: One battery: Li-Po 2.2Ah 12v.

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Abstract. This document lists the specifications of robot DARwin of team Bogobots-TecMTY.

Keywords: Humanoids, perception systems, walking-speed.

Robot Specification



Robot name: DARwin
Height, Width, Deep and Weight: 45.5cm, 15cm, 12cm, 2.8Kg.
Walking speed: 24.0 cm/sec
DOF: 20 actuators (6 DOF per leg + 3 DOF per arm + 2 DOF neck)
Type of motors: Dynamixel Rx28M (Mx28).
Computing unit(s): FitPC2, 1.6 GHz Intel Atom Z530 4GB flash SSD & WiFi
Camera(s): HD USB camera
Sensors: 3-axis gyro, 3-axis accelerometer, 3 buttons, 2 microphones
Built with: Aluminum brackets
Energy Supply: One battery: Li-Po 1Ah 12v.