**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.