Team VATIO-UP  One-Page specifications

RoboCup 2014 - João Pessoa, Brasil. Humanoid League, Kid Size

1.- Robot picture.

2.- Robot Name.

The team consists of three robots with the same structure and components: **KUBO, AXIS and LOLA**.

3.- **Number of degrees of freedom: 20 DOF**

4.- **Height, weight and walking speed:** 60 cm, 5.4 kg, 0.22 m/s

5.- **Type of motors and controller.**

Dynamixel – 8 RX28 (arms and head) and 12 RX64 (legs). The controller is CM700 with a module LN101 for USB 2.0 communication between the main computing unit and servomotors.

6.- **Computing unit.**

FitPc2 single board computer with Intel Atom Z530 @ 1.6 GHz, 2GB DDR3-1600, 30 GB SSD, and using Linux Mint as OS.


7.- **Camera.**

CMUcam4, or Webcam Logitech E3500, via USB 2.0 port.

http://www.cmucam.org/projects/cmucam4/

8.- **Sensors**

CHR-UM6 Orientation sensor, Gyros (3x), Accels (3x), Mag (3x). Estimation in Roll, Pitch, Yaw, Quaternion.

http://www.pololu.com/catalog/product/1255

9.- **Bateries**

Two packages of rechargeable LiPo batteries of 18.5 volts at 25C 750mAh.