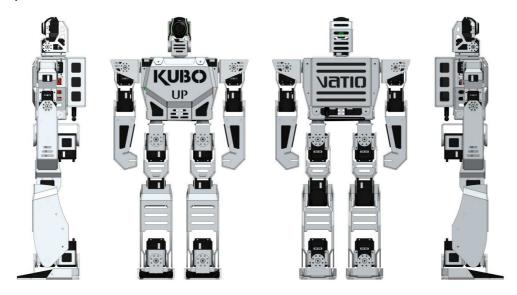
# Team VATIO-UP One-Page specifications

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.

http://www.fit-pc.com/web/products/fit-pc2/

## 7.- Camera.

CMUcam4, <u>or</u> WebCam Logitech E3500, via USB 2.0 port. <u>http://www.cmucam.org/projects/cmucam4/</u>

#### 8.- Sensors

CHR-UM6 Orientation sensor, Gyros (3x), Accels (3x), Mag (3x). Estimation in Roll, Pitch, Yaw, Quaternion. <a href="http://www.pololu.com/catalog/product/1255">http://www.pololu.com/catalog/product/1255</a>

### 9.- Bateries

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