

# AUTMan Humanoid Kid-Size Robots Specification Paper

## RoboCup 2014 Humanoid KidSize Robot League

*Humanoid Robotic Laboratory,*  
Mechanical Engineering Department and Amirkabir Robotic Institute,  
Amirkabir University of Technology (Tehran Polytechnic)  
<http://www.autman.aut.ac.ir>

**Robot Name:** *AUTMan II*

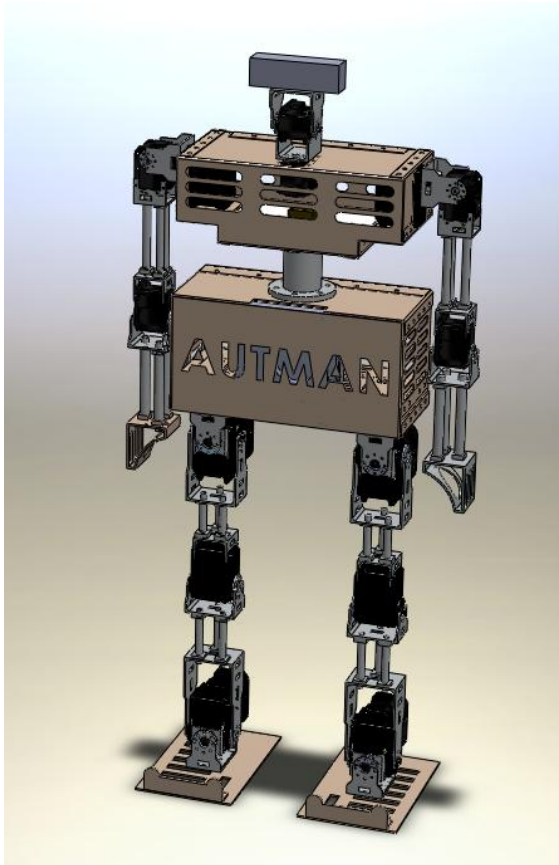
**Specification:**



<b>Height</b>	58 Cm
<b>Weight</b>	3.5 Kg
<b>Walking Speed</b>	35 Cm/min
<b>Degrees of Freedom</b>	20 in total: 6 in each leg 3 in each arm 2 in neck
<b>Type of Motors</b>	Dynamixel Rx-28 Dynamixel Rx-64
<b>Sensors</b>	HMC5843 3D Compass IDG650 2D Gyroscope ISZ650 Z Gyroscope
<b>Camera</b>	Logitech C905 wide
<b>Resolution</b>	640*480 pixels
<b>Computing Unit</b>	Max-data QutePc3020 1.6 GHz Intel Atom 1 Gb DDR2 memory
<b>Accelerometer</b>	ADXL345 3D Accelerometer
<b>Wi-Fi Module</b>	H-WiFi module bases on HED's AirQuickTM
<b>Battery</b>	18.5v, Li-Po 2000mAh

**Robot Name:** *AUTMan III & IV*

**Specification:**



<b>Height</b>	60 & 80 cm
<b>Weight</b>	3.9 & 4.5 Kg
<b>Walking Speed</b>	30 cm/min
<b>Degrees of Freedom</b>	20 in total: 6 in each leg 3 in each arm 2 in neck
<b>Type of Motors</b>	Dynamixel Rx-28  Dynamixel Rx-64  Dynamixel Mx-106
<b>Sensors</b>	HMC5843 3D Compass  IDG650 2D Gyroscope  ISZ650 Z Gyroscope
<b>Camera</b>	Logitech C905 wide
<b>Resolution</b>	640*480 pixels
<b>Computing Unit</b>	Max-data QutePc3020  1.6 GHz Intel Atom  1 Gb DDR2 memory
<b>Accelerometer</b>	ADXL345 3D Accelerometer
<b>Wi-Fi Module</b>	H-WiFi module bases on HED's AirQuick™
<b>Battery</b>	18.5v, Li-Po 2000mAh