

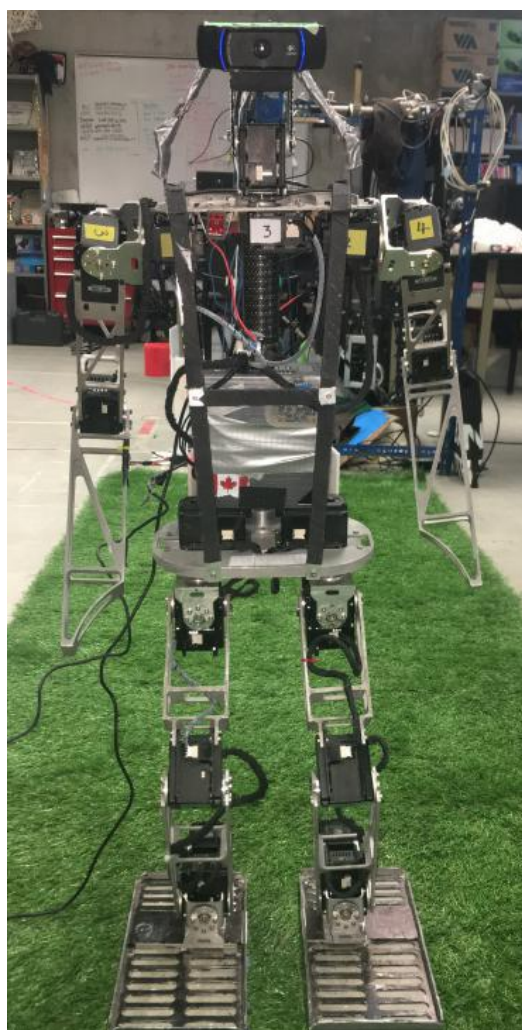
AMN United Teen Size Humanoid Specification Paper

RoboCup 2018 Humanoid Teen Size Robot League, Montreal, Canada

Bio-Inspired System Design Lab
Mechanical Engineering Department
Amirkabir University of Technology
(Tehran Polytechnic). Tehran, Iran.
<http://autman.aut.ac.ir>

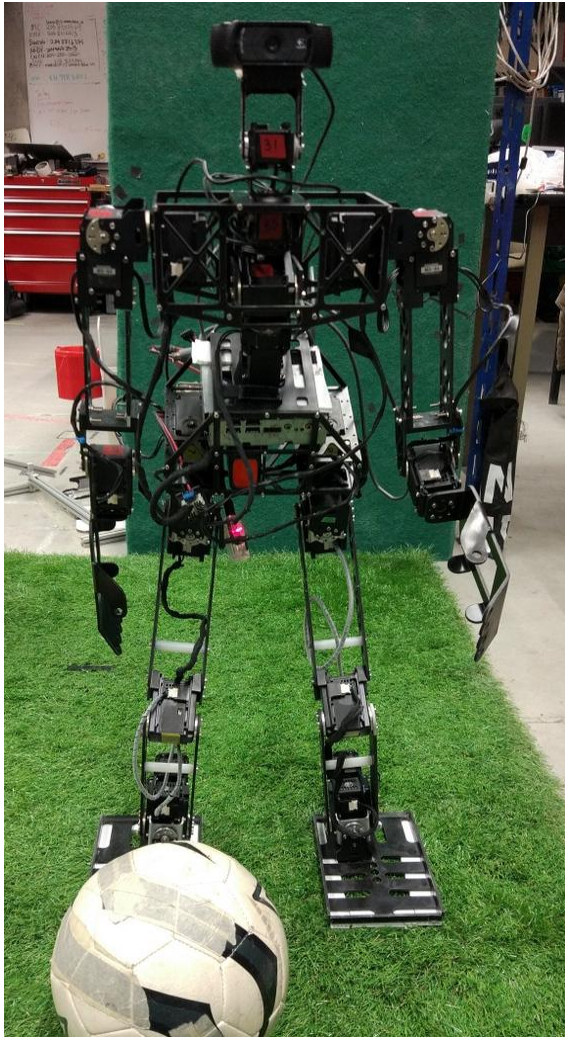
Autonomous Agents Laboratory
Department of Computer Science
University of Manitoba
Winnipeg, Manitoba, R3T 2N2, Canada
<http://aalab.cs.umanitoba.ca>

Department of Electrical Engineering
National Taiwan Normal University,
Taipei, Taiwan
<http://www.ee.ntnu.edu.tw/>



POLARIS

Height/Weight	94 cm/ 6KG
Maximum Walking Speed	25 cm/s
DoF	20 (2x3 in arms, 2x6 in legs, and 2 in neck)
Actuators	ROBOTIS Dynamixel (MX-28, MX-64, and MX-106)
Sensors	PhidgetSpatial Precision 3/3/3 High Res 3 Axis Compass/ Gyroscope/ Accelerometer
Camera	Logitech C920 Camera
Computing Unit	GIGABYTE BRIX Mini PC Intel Core i3-6100U 2.3GHz, 4GB RAM, and 120GB SSD.
Communication	ROBOTIS U2D2 Communication Converter Intel Dual Band Wireless-AC 3165 Wi-Fi 802.11a/b/g/n
OS/Development Platform	Linux, C/C++, Python, ROS



EBRAM

Height/Weight	84 cm/ 5.6KG
Maximum Walking Speed	25 cm/s
DoF	22 (2x3 in arms, 2x6 in legs, 2 in torso, and 2 in neck)
Actuators	ROBOTIS Dynamixel (MX-28, MX-64, and MX-106)
Sensors	PhidgetSpatial Precision 3/3/3 High Res 3 Axis Compass/ Gyroscope/ Accelerometer
Camera	Logitech C920 Camera
Computing Unit	QuanMax® QutePC 3001, Intel Celeron Dual Core 1.1 GHz, 2 GB DDR3 RAM and 32GB of SSD.
Communication	ROBOTIS U2D2 Communication Converter Intel Dual Band Wireless-AC 3165 Wi-Fi 802.11a/b/g/n
OS/Development Platform	Linux, C/C++, Python, ROS