

AUT-UofM Humanoid TeenSize Robots Specification Paper

RoboCup 2014 Humanoid TeenSize Robot League

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Robot Name: *AUTeen*

Specification:



Height	105 Cm
Weight	7.5 Kg
Walking Speed	35 Cm/min
Degrees of Freedom	20 in total (2x3 in hands, 2x6 in legs, 2 in neck)
Type of Motors	ROBOTIS Dynamixel® (RX-28, RX-64 and MX-106)
Sensors	1- GY-80 9DOF IMU (lower body) 2- MPU 9150 (upper body) 3- FSR (4x in each foot)
Camera	Logitech C905 Camera
Resolution	640*480 pixels
Computing Unit	QuanMax® QutePc3001 CPU: 1.1 GHz Intel Memory: 2 Gb DDR3 RAM and 32Gbyte of SSD.
Accelerometer	ROBOTIS OpenCM9.04 (ARM Cortex M3 @72Mhz)
Wi-Fi Module	Wi-Fi 802/11 - 2.4Ghz
Battery	16.8v, Li-Po 6800mAh

Robot Name: *Scrappy*

Specification:



Height	90 Cm
Weight	3.5 Kg
Walking Speed	50 Cm/min
Degrees of Freedom	2 active DOF in legs 4 passive DOF in ankle 1 active DOF in torso 4 active DOF in arms 2 active DOF in head
Type of Motors	Dynamixel Rx-64 Hitec RC Servo
Sensors	RM-G144 Magnetic Compass, Logitech C905 wide
Camera	Logitech C905 wide
Resolution	640*480 pixels
Computing Unit	DMP RB-110 1.0 GHz Vortex x86 CPU 256 MB memory
Accelerometer	±16g 3-Axis Accelerometer Board
Battery	18.5v, Li-Po 2000mAh