

ITAndroids Humanoid Robots Specifications for RoboCup 2020

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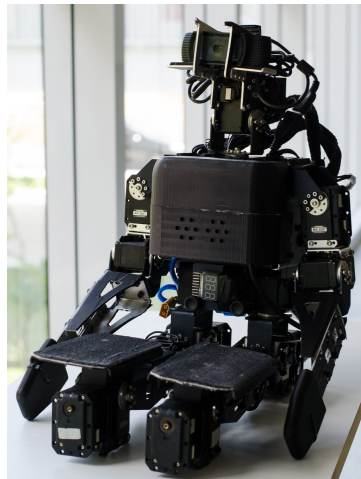
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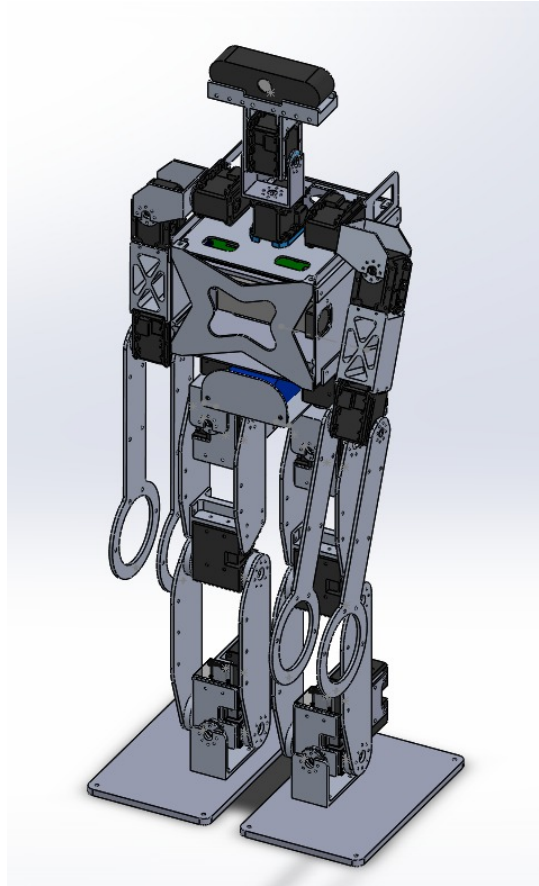
<http://www.itandroids.com.br>

1 Chape (4x)



Robot name	Chape
Height of the robot	530 mm (with football boots)
Weight of the robot	3.1 kg
Walking speed in cm/s (over grass)	30
Number of DoF	20 (2 neck + 3 per arm + 6 per leg)
Main computer	Intel NUC Core i5 @ 2.6 GHz dual core
Subcontroller	CMB v3 (designed by ITAndroids)
Camera	Logitech C920
IMU	MinIMU-9 (3-axis acc. + 3-axis gyro)
Servomotors	20 x Dynamixel MX-28AT
Battery	1300 mAh 4 cell LiPo (14.8–16.8 V)

2 Chape 2nd Generation (1x) – under development



Robot name	Chape 2nd Generation
Height of the robot	650 mm (with football boots)
Weight of the robot	≈ 4.5 kg
Walking speed in cm/s (over grass)	20
Number of DoF	20 (2 neck + 3 per arm + 6 per leg)
Main computer	Intel NUC Core i7 @ 2.6 GHz quad core
Vision Processing Unit (VPU)	Intel Movidius Neural Compute Stick 2
Subcontroller	CMB v4 (designed by ITAndroids)
Camera	Logitech BRIO
IMU	MinIMU-9 (3-axis acc. + 3-axis gyro)
Servomotors	MX-28AT (neck and arms) + XM540-W150-R (legs)
Battery	3000 mAh 4 cell LiPo (14.8–16.8 V)