

Robo-Erectus Jr-2013 KidSize Robot Specifications.

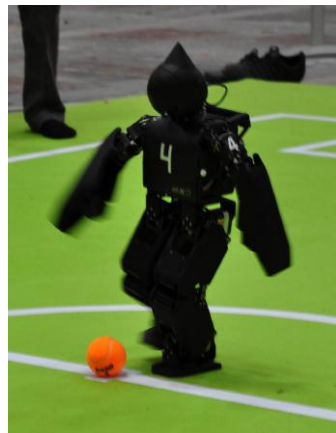
Buck Sin Ng, Carlos A. Acosta Calderon and Changjiu Zhou.

Advanced Robotics and Intelligent Control Centre,

url: www.robo-erectus.org

January 26, 2013

Physical Specifications of the REJr Bv-MkII+

1. Physical Specifications.					
Weight	Dimensions			Speed	
	Height	Width	Depth	Walking	Running
4.1kg	560mm	220mm	160mm	30cm/sec	—
2. List of Degrees of Freedom.					
Joint	Roll	Pitch	Yaw		
Head		✓	✓		
Shoulder	✓	✓			
Elbow		✓			
Hip	✓	✓	✓		
Knee		✓✓			
Ankle	✓	✓			
3. Sensors.					
Sensor	Details				
Camera	Philips 900NC: 640x480 Resolution 30fps.				
Gyro (IMU)	IDG500: $\pm 500^\circ/sec$ angular rate.				
Accelerometer(IMU)	ADXL335: $\pm 3g$				
Rate Gyro	LISY300AL: $\pm 300^\circ/sec$ angular rate				
4. Actuators.					
Actuator	Torque			Speed	
Kondo KRS-4014	40.8 kg.cm @ 10.8v			0.19 sec / 60 deg @ 10.8v	
Kondo KRS-6003	67.0 kg.cm @ 11.1v			0.22 sec / 60 deg @ 11.1v	
5. Specifications of the boards.					
Features	High Level Host Processor			Low Level Micro-processor	
Processor	fitPC2i			dsPIC32	
Speed	1600Mhz			80Mhz	

Physical Specifications of the REJr Bv-MkIII

1. Physical Specifications.					
Weight	Dimensions			Speed	
	Height	Width	Depth	Walking	Running
3.5kg	540mm	220mm	180mm	40cm/sec	—
2. List of Degrees of Freedom.					
Joint	Roll	Pitch	Yaw		
Head		✓	✓		
Shoulder	✓	✓			
Elbow		✓			
Hand		✓			
Hip	✓	✓	✓		
Knee		✓✓			
Ankle	✓	✓			
3. Sensors.					
Sensor	Details				
Camera	Logitech C905: 320x240 Resolution 30fps.				
Gyro (IMU)	IDG500: $\pm 500^\circ/sec$ angular rate.				
Accelerometer(IMU)	ADXL335: $\pm 3g$				
Rate Gyro	LISY300AL: $\pm 300^\circ/sec$ angular rate				
4. Actuators.					
Actuator	Torque			Speed	
Kondo KRS-4014	40.8 kg.cm @ 10.8v			0.19 sec / 60 deg @ 10.8v	
Kondo KRS-6003	67.0 kg.cm @ 11.1v			0.22 sec / 60 deg @ 11.1v	
5. Specifications of the boards.					
Features	High Level Host Processor			Low Level Micro-processor	
Processor	fitPC2i			dsPIC32	
Speed	1600Mhz			80Mhz	