

Kid-Size Humanoid Soccer Robot Design by TKU Team

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Specifications					
Name	TWNH-IV				
Height	46 cm				
Weight	3.6 kg				
Walking Speed	12 cm/sec				
Mechanism System					
		Number of DOF	Actuator Torque (kg/cm)	Actuator Speed (sec/60°)	Type of motors
Head	Neck	2	5.4	0.17	MICRO MG 2BB
Trunk	Waist	2	40.8	0.19	KRS-4014HV ICS Red Version
Legs	Hip	3(x2)	37.5	0.13	KRS-2350 HV ICS Red Version
	Knee	2(x2)			
	Ankle	2(x2)			
Arms	Shoulder	2(x2)	20.0	0.14	KRS-788 HV
	Elbow	1(x2)			
	Wrist	1(x2)			
Total	26				
Electronic System					
Sensors	CMOS Sensor	160x120 resolution			
	Accelerometer	3-axis			
	Digital compass	5° heading accuracy, 0.5° resolution.			
	Pressure Sensor	8bit, no parity, no flow control, TTL level			
Processors	Sunplus-DSP	32.768MHz			
	Altera-NIOS	80MHz			
Power	Lithium Battery	12V, 2100mA.			