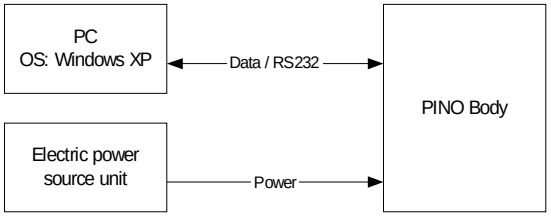
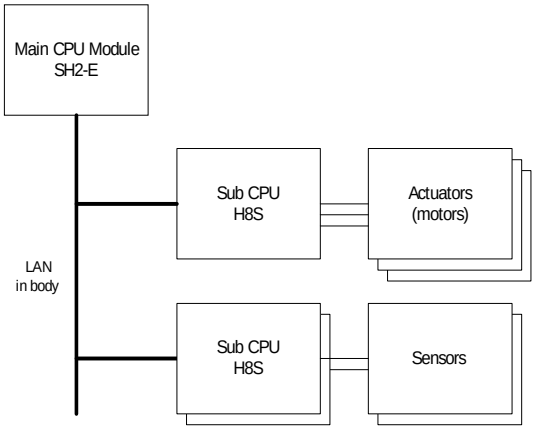
2003/9/22

PINO ver.2 specification(with exterior) ver.1

HARDWARE				
Body	Height	70[cm]		
	Weight	5.5[kg]		
	DOF	upper body	14DOF	
		leg part	12DOF	
	Actuator	DCmotor with planetary reduction device with potentiometer	Lmotor 13 pieces	stall torque：about 2.9[Nm] no load speed：about 37[rpm]
			Mmotor 13 pieces	stall torque：about 0.058 [Nm] no load speed：about 60[rpm]
		control algorism	Degital PID control with dead band control cycle：1[msec]	
	Sensor	joint angle detection	potentiometer	26 axes
		angular speed detection	piezoelectric transducer gyro	2axes, 3axes(option)
		acceleration detection	2axes, 3axes(option)	
		foot sensor detection	4 points on one-leg(option)	
Host PC operating system		WindowXP/2000		
Controller	Main CPU	SH 7055F 40Mhz(SH2E)		
	Sub CPU	HD64F2612 20MHz(H8S)		
	Motor Driver	control 3 DCmotor		
	Main-Sub CPU Interface	CAN bus		
	Main CPU-Host computer Interface	RS-232C		
Power resourse	Input	AC 100~220[V]		
	Output	12[V] - 25[A]		
PC		Notebook (Pentium3 1GHz)		
Exterior		Polyurethane - 30parts		
Hanging apparatus		Aluminum :1.5m for PINO walking		

SYSTEM	
System	
Connection between robot and	Wired connections
Transmission method between	RS232 57.6kbps
Robot conrol	Body control Distributed control (send & receive data from PC via Main CPU module to eacn Sub CPU Joints control Proceeded by Sub CPU Sensor processing Proceeded by Sub CPU dispersed on the ground 

*This contents might be changed without any notice.

ZMP INC. 7F Katsuta Bldg., Mita,Minato-ku, Tokyo,108-0073 Japan
Tel: +81-3-5765-6567 Fax: +81-3-5765-6568
Email: info@zmp.co.jp