



## Robot Model Name

# T1

## Specifications

**Physical specs:** Height 40 cm  
Weight 1660 g  
Walking speed 10 cm/s

**Degrees of freedom:** 20 DOF  
6 DOF on each leg  
3 DOF on each arm  
2 DOF on the head

**Servo motors:** 4 HS-8498HB digital servomotors by HITEC (Karbonite gears)  
6V-7.4V operating range  
7.4 kg cm @ 6V (stall torque)  
300°/s @ 6V (max speed)

16 HSR-5498SG digital servomotors by HITEC (Steel gears)  
6V-7.4V operating range  
11 kg cm @ 6V (stall torque)  
272°/s @ 6V (max speed)

**Sensors:** 1 Minoru stereo webcam 640×480 @ 15fps, 320×240 @ 30fps  
YCbCr (color space)

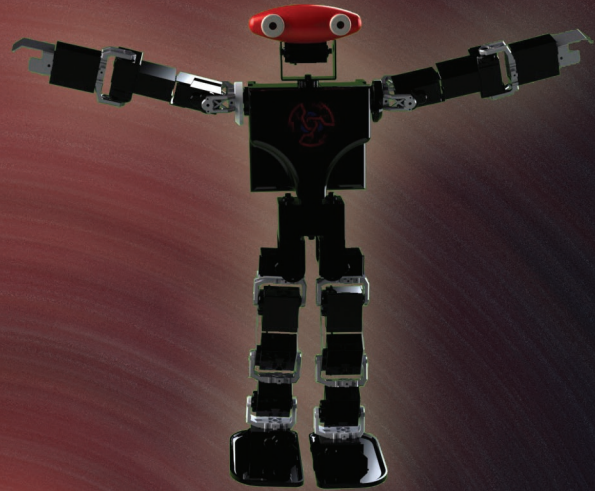
1 6 DOF IMU 3 accelerometer axes (analog outputs)  
300 mV/g sensitivity, ±3 g range  
3 gyroscope axes (analog outputs)  
0.83 mV/°/s sensitivity, ±300°/s range

**Processing unit:** Roboard RB-100 based on the 32-bit x86 Vortex86DX CPU  
1 GHz, 256 MB DDR2 RAM  
RS-485, 32 PWM channels, 3 USB 2.0 ports,  
RS-232, SPI/I<sup>2</sup>C bus, 8 10-bit ADC ports,  
mini PCI socket, microSD slot  
400 mA @ 5V (power consumption)  
96 mm x 56 mm, 40 g



## Robot Model Name

# T2



## Specifications

**Physical specs:** Height 49 cm  
Weight 1860 g  
Walking speed 12 cm/s

**Degrees of freedom:** 21 DOF  
6 DOF on each leg  
3 DOF on each arm  
2 DOF on the head  
1 DOF on the hip

**Servo motors:** 21 KRS-2555HV digital servomotors by Kondo (Metal gears)  
9 V - 12 V operating range  
14 kg cm @ 11.1V (stall torque)  
429°/s @ 11.1V (no load speed)

**Sensors:** 1 Minoru stereo webcam 640×480 @ 15fps, 320×240 @ 30fps  
YCbCr (color space)  
1 6 DOF IMU 3 accelerometer axes (analog outputs)  
300 mV/g sensitivity, ±3 g range  
3 gyroscope axes (analog outputs)  
0.83 mV/°/s sensitivity, ±300°/s range

**Processing unit:** Roboard RB-110 based on the 32-bit x86 Vortex86DX CPU  
1 GHz, 256 MB DDR2 RAM  
RS-485, 16 PWM channels, 1 USB 2.0 ports,  
RS-232, SPI/I<sup>2</sup>C bus, 8 10-bit ADC ports,  
mini PCI socket, microSD slot, 2 hi-speed serial  
400 mA @ 5V (power consumption)  
96 mm x 56 mm, 40 g