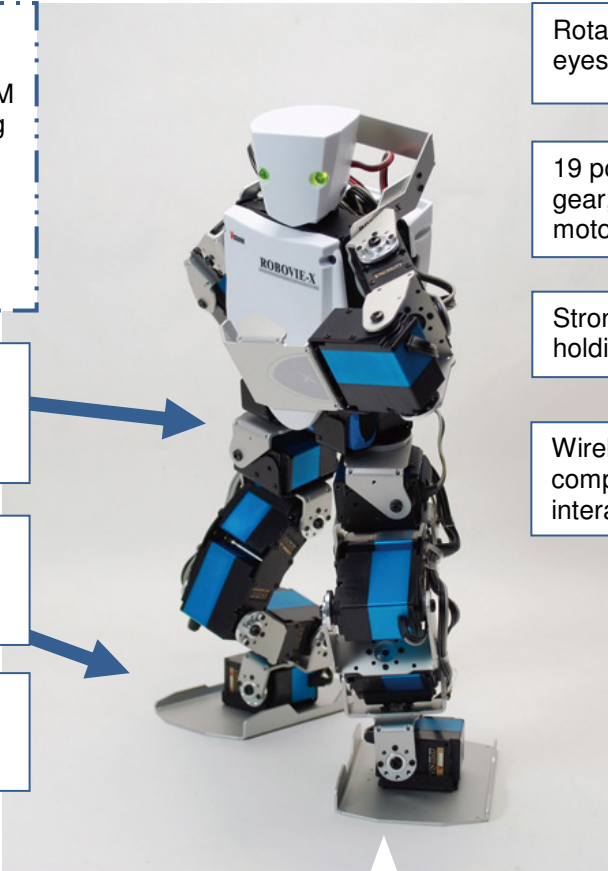


# KT-X GLADIATOR PRO

## Advanced Bi-pedal Humanoid Robot

The “KumoTek-X Gladiator PRO” (KT-X) bipedal robot is the fully upgraded version of the popular KT-X series robots designed by KumoTek Robotics and Vstone Corporation of Japan. The robot boasts a full 19 degrees of freedom (DOF) and a set of 18 high torque, metal gear servos throughout the body.

- ① The new KT-S281J servos offer about three times more torque than the traditional plastic gear KT-S092 servos and have significantly increased the reliability and accuracy of the robot’s motions.
- ② Overall walking speed, maneuverability, payload and stability are also greatly improved from the increase in torque.
- ③ New safety mechanisms have been installed to enhance handling and safety while operating the robot, including a back mounted handle and extended arm/shoulder brackets.
- ④ Robot is delivered to the customer fully assembled and ready to use.
- ⑤ Comes with an internal gyro/accelerometer "VS-IX001" expansion board.



**Beneath it all**

- 1 Powerful 60MHz HV processor with 512kB ROM & 64kB RAM for producing lighting flash motions
- 1 Speaker for .wav files and action noises.
- 1 gyro and accelerometer sensor

Rotating head and green LEDs for eyes

19 powerful joints made of metal gear, high-torque digital servo motors

Strong hands for picking up and holding objects

Wireless gamepad remote control compatibility for real-time interaction and play

2 pivoting hip servo motors for increased control and maneuverability

Well balanced legs and feet for running, flipping, dancing and robotics research

Lightweight precision machined composite aluminum frame.

## Physical Specifications

	Dimensions	Features
<b>Size</b>	Height: 383mm Width: 180mm Depth: 73mm	Can fit in a small back pack or carrying case
<b>Weight</b>	1.96kg	
<b>Degrees of Freedom</b>	Legs: 12 (6 per leg) Arms: 6 (3 per arm) Head: 1 <b>Total: 19 d.o.f.</b>	Torque: 28.5kg/cm Speed: 0.11s/60 Weight: 42g Control method: PWM
<b>Sensors</b>	VS-IX001 Accelerometer & Gyro (plug and play) <ul style="list-style-type: none"> <li>• 3 axis accelerometer (2 axis used)</li> <li>• 2 axis gyro</li> </ul>	Acceleration sensor: <ul style="list-style-type: none"> <li>• Fall-detection and auto-standup</li> <li>• Angular threshold feedback</li> <li>• Acceleration detection and feedback to microcontroller for real-time balance and stability</li> </ul>
<b>CPU</b>	CPU: LPC2148FBD64  60MHz HV processor with 512kB ROM / 64kB RAM	<ul style="list-style-type: none"> <li>• 30 channels</li> <li>• 5 ~ 16 V input</li> <li>• High speed USB interface</li> <li>• Multiple I2BUS ports for connecting remote control, analog, digital, <u>light sensing</u>, MP3 and gyro/accelerometer chips.</li> </ul>

## Software Specifications

Features	Description
<b>Language</b>	<ul style="list-style-type: none"> <li>• English or Japanese (Spanish coming soon)</li> </ul>
<b>GUI</b>	<ul style="list-style-type: none"> <li>• Slider bars for each axis, providing real-time visual feedback of joint positions</li> <li>• Drag and drop, or cut and paste motions for easy configuration</li> <li>• Over 100 motion files included</li> </ul>
<b>GYRO</b>	<ul style="list-style-type: none"> <li>• Provides real time gyro control, management and feedback through RS-232 connection.</li> </ul>
<b>RF and Game-pad Configuration</b>	<ul style="list-style-type: none"> <li>• Easy to use RF or PS2 gamepad remote control interface for uploading any possible combination of motions.</li> </ul>
<b>Autodemo Files</b>	<ul style="list-style-type: none"> <li>• Can upload numerous external auto demonstration files for untethered robot demonstrations</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>• Great for educators and classroom environments</li> </ul>

**Retail Price: \$4,990**