

# Humanoid Robot HOAP-3

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## Abstract

Robotics research activities have been very active in developing robots, particularly humanoid robots, which can coexist with human beings. Robots that can perform a variety of work in collaboration with human beings are expected to come into being in the near future. Fujitsu Laboratories Ltd. has successfully developed its HOAP-1, HOAP-2 and HOAP-3 miniature humanoid robots, which can be utilized in a variety of research and development applications such as development of bipedal walking motion control algorithms and working robot motion algorithms in combination with the basic simulation software, research on human-to-robot communication interfaces, etc.

## Technology

- Motors used are miniature in size, lightweight and high-power, and integrated with the micro-controllers.
- Built-in LAN system with USB interfaces can easily accommodate additional motors.
- Robot hardware/software internal interface architecture is disclosed to users, making the architecture freely programmable by the users.

## Application Examples

- Development of motion control algorithms, such as in bipedal walking
- Research and development of humanoid robot technologies, such as a robot capable of communicating with human beings

HOAP-3 Specifications

Height / weight	600 mm / 8.8 kg
Joint mobility	28 degrees of freedom
Operating command PC	OS: RT-Linux
Connection interface and built-in network	USB 1.0 (12 Mbps)/Control cycle: 1 ms



HOAP-3