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Video available at: http://asimo.honda.com/inside_asimo_movies.asp

Honda Debuts New ASIMO

TOKYO, December 13, 2005 – Honda Motor Co., Ltd. today debuted a new ASIMO humanoid robot that features the ability to pursue key tasks in a real-life environment such as an office and an advanced level of physical capabilities. Compared to the previous model, the new ASIMO achieves the enhanced ability to act in sync with people – for example, walking with a person while holding hands. A new function to carry objects using a cart was also added. Further, the development of a “total control system” enables ASIMO to automatically perform the tasks of a receptionist or information guide and carry out delivery service. In addition, the running capability is dramatically improved, with ASIMO now capable of running at a speed of 6km/hour and of running in a circular pattern.

Honda has been pursuing research and development of a truly useful humanoid robot that possesses both intelligence and physical capabilities at a high level. With the advancements achieved with this new ASIMO, the initial goal of achieving advanced physical capabilities is accomplished. Honda will continue and even more proactively pursue research and development efforts by shifting the focus to the area of intelligence capabilities, which, for example, will further enable ASIMO to make comprehensive judgments based on various situations.

1. New function to perform tasks of a receptionist or information guide automatically in concert with people:

- ASIMO is now capable of performing tasks as a receptionist or information guide automatically in concert with the movement of people. This was achieved by providing ASIMO with the ability to recognize the surrounding environment through its visual sensors, floor surface sensor, ultrasonic sensor, and by an IC Tele-interaction Communication Card (*1), which was developed independently by Honda, and is held by the person with whom ASIMO will interact. Moreover, through the coordinated use of its eye camera in the head and the force (kinesthetic) sensor on its wrists, ASIMO can give and receive an object such as a tray in a timely manner. Further, by using the force (kinesthetic) sensor, ASIMO can hold the hand of the person and move in sync with them.

(*1) IC Tele-interaction Communication Card: By adding an optical communication function to the IC tag, the existence and position of the person or object can be identified. With this card, ASIMO can recognize the location and identity of the person regardless of where the person stands in a 360-degree range from ASIMO.

2. New function to carry objects using a cart

- ASIMO is now capable of handling a cart freely while maintaining an appropriate distance from the cart by adjusting the force of its right and left arms to push a cart using the force (kinesthetic) sensor on its wrists. Even when the movement of the cart is disturbed, ASIMO can continue maneuvering by taking flexible actions such as slowing down or changing directions.

3. Improved running functions

- Through proactive control of ASIMO's posture while both feet are off the ground, the running speed was doubled from the previous 3km/hour to 6km/hour. In addition, running in a circular pattern at a high speed was achieved by tilting the center of gravity of ASIMO's body inside of the circle to maintain balance with the amount of centrifugal force experienced.

Honda will begin operating this new ASIMO in spring 2006 at its research and development Wako Building in Japan.

Various technological achievements obtained through the research and development of ASIMO, including posture control technologies, image and voice recognition technologies, and technologies to anticipate and avoid collisions, will be applied to other technological pursuits within Honda, such as automotive safety technology and other areas.

Key specifications of the new ASIMO (in comparison with the “next-generation” ASIMO that debuted December 11, 2004) :

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| 1. Running speed: | 6km/hour (previous model: 3km/hour)
- Airborne time: 0.08 second (previous model: 0.05 second)
- Distance ASIMO moves forward while both feet are off the ground : 50mm |
| 2. Normal walking speed: | 2.7km/hour (previous model: 2.5km/hour) |
| 3. Speed of running in a circular pattern: | 5km/hour (2.5m radius) |
| 4. Walking speed while carrying objects: | 1.6km/hour (based on carrying object: weighing 1kg) |
| 5. Height: | 130cm |
| 6. Weight: | 54kg |
| 7. Operating degrees of freedom: | Total 34 degrees of freedom |