



NATURALLY
EXPRESSIVE
ROBOTS

A new robot designed to look like a young Japanese woman and capable of astonishingly real facial expressions. Photo © AIST



The humanoid robot is expressive.

The Industrial Technological Research Institute in Tsukuba, Ibaraki Prefecture, has unveiled a female robot with astonishingly rich facial expressions. This creation is the latest addition to a long list of robots developed in Japan for industrial, service and learning purposes.

The new robot, the Cybernetic Human HR P-4C, has been designed to look like a young Japanese woman. It is 158 centimeters tall and weighs 43 kilograms, including the battery. Clad in a tight-fitting spacesuit-like metallic outfit and with black bobbed hair, the robot features a silicon face with large eyes and a small nose. She looks very real and is so cute that it is easy to forget that “she” is a machine.

Like a fashion model, she strolled into the room at a recent press conference. When asked to

show an angry face, she put her hands on her hips, tilted her head to the left, and glared at the audience. When asked to look surprised, she raised her hands up in the air, opened her mouth wide and looked skyward feigning surprise.



The humanoid robot looks surprised.

The computer system imbedded in the head allows the robot to recognize human voices and respond using pre-programmed phrases.

The robot can operate for about 20 minutes on a single battery charge. The institute spent about

200 million yen to develop it.

“Our robot can be used as a walking mannequin in a department store. We may possibly begin marketing it in a year,” said the head of the institute’s engineering team, Shuji Kajita, adding that the robot will likely be priced at around 20 million yen.