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SoftBank Mobile Corp.

Aldebaran Robotics SAS

PRESS RELEASE

SoftBank Mobile and Aldebaran Unveil “Pepper” – the World’s First Personal Robot That Reads Emotions

SoftBank Group companies SoftBank Mobile Corp. (“SoftBank Mobile”), Japan’s leading mobile operator, and Aldebaran Robotics SAS (“Aldebaran”), the world leader in humanoid robotics, announced the joint development of “Pepper”, the world’s first personal robot that can read emotions. Pepper, which incorporates variety of technologies and capabilities, will be commercially available in Japan from SoftBank Mobile in February 2015 for a base price of JPY 198,000*.

From June 6, 2014, visitors to the SoftBank Omotesando and SoftBank Ginza stores will be able to enjoy talking and interacting with Pepper, the newest member of the SoftBank crew. SoftBank Mobile plans to subsequently station Pepper at more of its stores nationwide.

A new robot, and new businesses to emerge: robot apps

Pepper is a humanoid robot that takes his surroundings into consideration to react pro-actively using proprietary algorithms. Pepper also comes equipped with capabilities and an interface that enables communication with people, including the latest voice recognition technology, superior joint technology to realize graceful gestures, and emotion recognition that analyzes expressions and voice tones. With these technologies, people can enjoy communicating with Pepper in a natural way, just like they would with friends and family. In addition, Pepper can make jokes, dance and amuse people thanks to a wide variety of entertainment capabilities, some of which were developed in cooperation with Yoshimoto Robotics Laboratory, Inc., a Yoshimoto Kogyo Group company. Capabilities that help Pepper evolve by learning through daily interactions with people are also being planned for the commercial launch timing.

Furthermore, a variety of applications created by developers around the world, robot apps (programs that can be incorporated into Pepper’s various capabilities, including motion, conversation and sensors) are scheduled for expanding Pepper’s capabilities. The Aldebaran software development kit (SDK) will be provided for creating robot apps, and in September 2014, a Tech Festival in Tokyo is under planning to provide technical specifications, development methods and other details.

A meeting of shared visions

At its Next-30 Year Vision announcement in 2010, the SoftBank Group expressed its interest in robot technology as a means to enhance quality of life. With Aldebaran, it found a company creating kind and emotional robots that can communicate with people and meet their emotional needs. With both companies sharing a common vision, SoftBank made its first equity investment in Aldebaran in 2012, subsequently making it a SoftBank Group company.

Masayoshi Son, Chairman & CEO of SoftBank Corp., commented, “Since foundation, we have followed our corporate philosophy of ‘Information Revolution – Happiness for everyone.’ To realize our vision, we have made a new entry into the robot business with the aim of developing affectionate robots that make people smile. Using emotion engines and Cloud AI, which evolves with collective wisdom, we’re making this happen. As our first entry, we are pleased to offer the world’s first personal robot that reads emotions, Pepper, which we developed with Aldebaran.”

“For the past nine years, I've believed that the most important role of robots will be as kind and emotional companions to enhance our daily lives, to bring happiness, constantly surprise us, and make people grow,” said Bruno Maisonnier, Founder & CEO of Aldebaran. “The emotional robot will create a new dimension in our lives and new ways of interacting with technology. It's just the beginning, but already a promising reality. Thanks to Pepper, the future begins today and we want all of you to be a part of it.”

*Displayed price excludes tax. Optional plans necessary for life with Pepper are scheduled.

Main features of Pepper (planned)

- Judges situations with an array of sensors, incorporates proprietary algorithms to control applications autonomously
- Estimates emotions based on expressions and voice tones using emotion recognition functions
- Over 12 continuous hours of battery life
- Articulates gracefully with a high degree of freedom thanks to proprietarily developed joints
- Can acquire various types of information and synchronize with cloud-based databases through an Internet connection
- Uses sensors to avoid collisions and has autobalance to prevent falls, among other various safety features
- Capabilities are expandable by installing various new types of robot apps
- Aldebaran's software development kit (SDK) will be provided for a wide range of applications, from simple movements to advanced customization using widely available programming languages

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| Dimensions | 1210mm (height) x 425mm (depth) x 485mm (width) | |
| Weight | 28kg | |
| Battery | Lithium-ion battery Capacity: 30.0Ah/795Wh Operation time: approx. over 12hrs (when using at shop) | |
| Sensors | Head | Mic x 4, RGB camera x 2, 3D sensor x 1 Touch sensor x 3 |
| | Chest | Gyro sensor x 1 |
| | Hands | Touch sensor x 2 |
| | Legs | Sonar sensor x 2, Laser sensor x 6, Bumper sensor x 3, Gyro sensor x 1 |
| Moving parts | Degrees of motion Head (2°), Shoulder (2°) (L&R), Elbow (2 rotations) (L&R), Wrist (1°) (L&R), hand 5 fingers (1°) (L&R), Hip (2°), knee (1°), base (3°) 20 Motors | |
| Display | 10.1-inch touch display | |
| Platform | NAOqi OS | |
| Networking | Wi-Fi: IEEE 802.11 a/b/g/n (2.4GHz/5GHz) Ethernet x1 (10/100/1000 base T) | |
| Motion speed | Up to 3km/h | |
| Climbing | Up to 1.5cm | |

About Aldebaran Robotics SAS

Founded in 2005 by Bruno Maisonier, and with offices in France, China, Japan and the United States, Aldebaran designs, produces and sell autonomous humanoid robots in order to contribute to the well-being of humans. Today over 5,000 NAO, our first product, are utilized throughout the world as research and educational platforms in 70 countries. Aldebaran brings together more than 500 people that are involved in the development and production of the robot. Aldebaran is a SoftBank Group company, with SoftBank owning an 78.5% equity interest. For further information, visit www.aldebaran.com

<https://www.facebook.com/AldebaranRobotics>

twitter.com/aldebaran_news

<http://www.youtube.com/user/AldebaranRobotics>

About the SoftBank Group

The SoftBank Group comprises the pure holding company SoftBank Corp. (TSE:9984) and its more than 1,300 subsidiaries and affiliates that offer a comprehensive range of mobile communications, fixed-line communications and Internet services. With Sprint joining in July 2013, the SoftBank Group became a leading global carrier that now has over 100 million subscribers. Maximizing synergies across its Group companies worldwide, SoftBank aspires to realize lifestyle innovation through IT. The SoftBank Group is also encouraging the adoption of clean and safe energy through its business activities. To learn more, please visit www.softbank.jp/en/corp/

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