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T3'S MONTHLY NEWS ROUND-UP OF THE HIPPEST HARDWARE

COMPILED BY VICTORIA GUERRERO AND NICK RENSHAW

NEW AIBOS FOR SALE

The world's favourite hi-tech pet is back – and this time he's better than ever

Sony's unveiled plans to launch a new version of its hi-tech entertainment robot, AIBO, in time for Christmas and has also hinted at future plans at a special preview in London (Sony's Entertainment Robot Company president Satoshi Amagai tells all on page 20).

The new model, dubbed ERS-210, has been completely redesigned with a host of new features – and this time there's no restriction on how many you can buy or a time limit on when you can buy them. Previously, the hi-tech pet's been limited to a worldwide run of just 45,000 models, made available for a short period only over the Internet.

The new AIBO (which stands for Artificial Intelligence roBOT), has shed some of his more dog-like features to become a generic four-legged robot animal with smaller, pointy ears, a tiny, more pointed tail and a housing for its rechargeable battery in its belly rather than the previous model's, frankly embarrassing, rear end. In fact, AIBO's shell has been completely remodelled and simplified by the original designer, Hajime Sorayama, presumably to make it easier to mass produce than the previous model, and is also available in three colours – champagne gold, silver and black.

While the ERS-210 shares many similarities with its predecessor in terms of

technology, the new version boasts touch sensors on his head, back and under the chin, and has 20 degrees of movement in his head and limbs, enabling him to move more smoothly and quickly. Like his dad, the new AIBO can express five different emotions – joy, anger, sadness, fear and discontent – and has four different instincts – hunger, curiosity, movement and affection. These are expressed through red, green and blue LEDs in his head, as well as with red and green lights in his stubby tail. The ERS-210 also has the original AIBO's sense of balance (he will right himself if he falls over) and can recognise colours and movement. Best of all, the new version now has speech recognition as well, with a vocabulary of up to 40 words by the time he becomes an adult – this means that not only will AIBO come to you (or anyone else for that matter) when you call his name, but the little pup can now listen and react to your conversations with other people, thanks to the stereo microphones in his ears which waggle around so he can tell where sounds are coming from. Like the old model, AIBO can also talk to you in his own tonal language and can now



Here boy! The latest AIBO comes with voice recognition and has a vocabulary of up to 40 words.

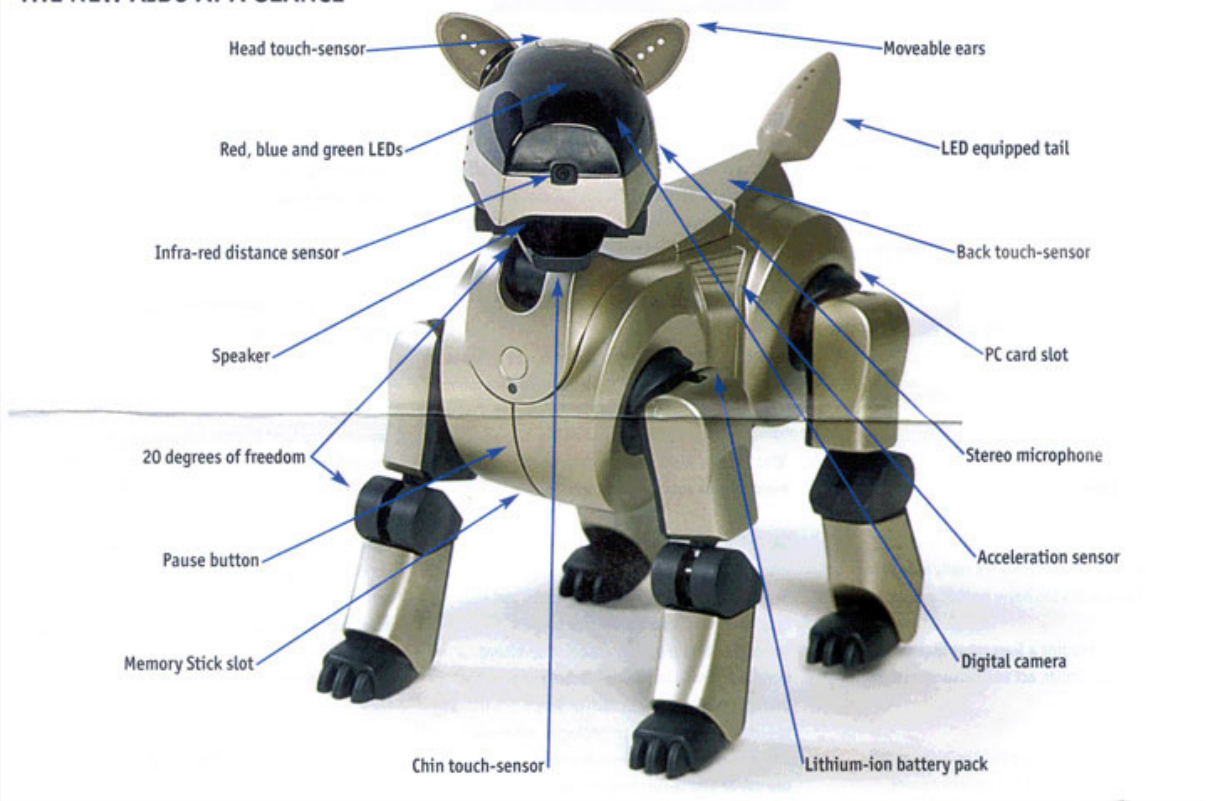
HOW MUCH IS THAT AIBO IN THE WINDOW?

Sony has added lots of new hardware and software to help you make the most your new pet. Here's a breakdown of the purchase plans and optional extras available

Plan A: Ultra Deluxe	Plan B: Deluxe	Plan C: Standard	Optional extras
AIBO entertainment robot £1,060 AIBO Life software £64 Energy station £120 Li-ion battery pack £71 Hello AIBO software £57 Carrying pack £105	AIBO entertainment robot £1,060 AIBO Life software £64 Energy station £120 Li-ion battery pack £71	AIBO entertainment robot £1,060 AIBO Life software £64	Wireless LAN card £141 8Mb Programming Memory Stick £64 AIBO Fun Pack software £71 AIBO Master Studio software £353 AIBO Party Mascot software £71
Total: £1,477	Total: £1,315	Total: £1,124	

Prices based on current Euro exchange rates and include VAT

THE NEW AIBO AT A GLANCE



use his built-in 1/6-inch CMOS digital camera to take pictures of his surroundings, which you can view later on your PC. The new model can even be fitted with a wireless LAN card so you can control him from your computer too.

Although the ERS-210 is some £450 cheaper than his predecessor, Sony has simply taken some of the previously supplied items – like the recharging station – and added them to the 'options' list instead. Sony has also introduced dedicated 'pink' Memory Sticks which accompany a suite of optional software packages designed to enhance the AIBO experience – *AIBO Life*, *AIBO Fun Pack*, *Hello AIBO* and *Party Mascot*. The

Memory Sticks also now feature copy protection, rather like the MagiGate cards in Sony's NW-MS7 Walkman.

You can place your order for the new AIBO on Sony's Website www.aibo.com from Thursday 16th November 2000.

Contact: Sony AIBO sales line on 020 7365 2938

☑ Sony's responded to customer feedback and finally given AIBO a sensor under his chin.



AIBO: NOW AND IN THE FUTURE

At an exclusive preview in London, Satoshi Amagai, president of Sony's Entertainment Robot Company, took time out to talk to **T3** about AIBO and his plans for the future

T3: Are you working on a third generation AIBO?

SA: Maybe, although we'd also like third parties to help develop the robot market on the basis of AIBO's Open-R standardised architecture. We're also happy to discuss licensing relationships in other fields such as the movie, music and games industries. We won't necessarily want to stick to just the hardware AIBO. We could have AIBO software, AIBO games, dolls or even TV programmes.

T3: How does he fit into the Sony world of products?

SA: We would like to stick to the original concept – that this is an entertainment robot – but one of the features we'd like to incorporate is in the area of communications where we could connect him to Sony's AV or IT products. One of the typical features could be wireless communication so AIBO could act as an agent for home appliances.

T3: So AIBO could be used to control your TV for example?

SA: We have no plans at the moment, the original AIBO should stick to entertainment – emotional rescue.

T3: How far do you think you can develop the entertainment robot market?

SA: It's still questionable what shape the consumer market will take and what products we should supply. We really understand and appreciate Honda's P3 robot technology, but I don't think it's really a consumer product as it is. It's too heavy and too expensive.

T3: Can you imagine a Sony robot that would do something similar, act as a personal assistant, for example?

SA: We could do everything in 10 or 20 years. It's important to decide what the customer wants. The technological direction is not necessarily the same as the business direction.

T3: What will AIBOs be like in 10 years' time?



SA: A two-legged robot might be one possibility. Two-legged robots are technologically more difficult to make than four-legged versions. A two-legged robot would be interesting, but in terms of cost and technology it will take a long time before it'll become cheap enough for most consumers to afford it. However, a two-legged robot is a challenge and it could bear many technological fruits that could be incorporated into future generation AIBOs.

T3: So a two-legged robot is on the cards?

SA: Not at the Entertainment Robot Company, but at Sony. We have many laboratories and research groups. A two-legged robot is just one of the research themes.

T3: The new AIBO has speech recognition, will he eventually be able to talk back to you?

SA: Definitely. In order for AIBO to be able to converse with you, lots of high levels of technology are necessary, like voice recognition, image recognition and listening capability. Those core elements of future communications capability are being developed worldwide. The Entertainment Robot Company has been communicating with each of Sony's research labs to further develop these technologies. We're also developing an advanced level of mobility so AIBO may one day be able to run, jump or even fly or swim.

T3: AIBO has spawned many imitators. What do you think of them? Isn't there a danger that they'll devalue the technology AIBO has inside?

SA: We call them fake AIBOs. It's a phenomenon we have been observing. Some people may mistake the fake AIBOs for our AIBO, but we're thinking of doing something about that. However, some of these fake AIBOs have also contributed to making consumers aware of entertainment robots as a whole, so in that sense these guys are welcome to make these products. In Japan, many AIBO owners also have fake AIBOs so they can create an AIBO family.

T3: Some of these pretend robots even have voice recognition.

SA: Sony has a very strict policy on speech recognition. A £30 fake AIBO may have speech recognition, but its speech recognition level is so low – say 60-70 per cent – that one out of three times their owners will get frustrated because their pets won't understand them. AIBO should never frustrate its owners. AIBO has a very high level of speech recognition, over 90 per cent, in fact. We'll never introduce something into our products for the sake of fashion, only when the technology is right.

T3: Do you think people have a right to be frightened of robots in the future?

SA: There is an ethical issue here. Honda's P3 is a prime example. What if Honda introduced it as a consumer product? It might fall over on a baby, that baby might die. Sony thinks seriously about these issues. We could produce a much more intelligent robot within the next 10 years, but to immediately apply a technology directly from a research lab is questionable. As a manufacturer we have to check the potential negative risk of advanced technology on our consumer products.

T3: What do your customers think of the AIBOs they own?

SA: Many AIBO owners love their dogs, especially in Japan. Last June, one year after we first introduced the robots into the market, we received many birthday cakes. We would never discourage those customers. We do business not just from the point of making money, but also from one of customer satisfaction. **T3**



PHOTOGRAPHY: PAUL MASSEY