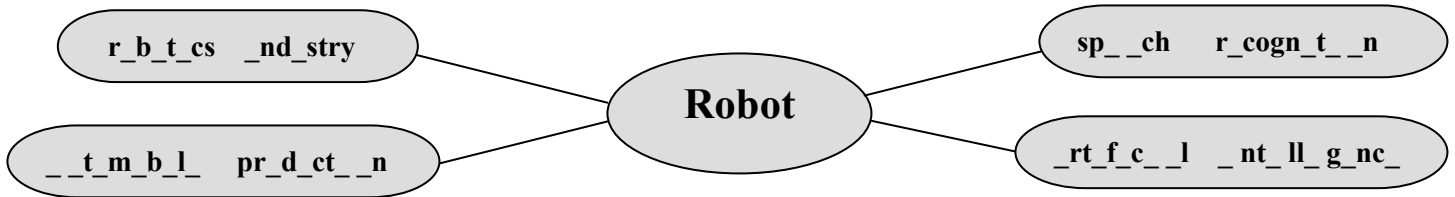


Robots

A Japanese company launches a home-help robot; should the EU speed up research in the robotics industry?

1 Fill in the missing vowels in these words connected with robots. What do you know about each term?



2 Complete the Fact box about the Wakamura robot by scanning the first paragraph of the article.

Fact box: Wakamura			
Description:	Humanoid robot	Height:	
Development:	Mitsubishi Heavy Industries, Ltd.	Weight:	
Power:	Rechargeable battery	Cost (approx):	

Wakamura

Wakamaru, a humanoid home-help robot, has gone on sale in Tokyo. Created by *Mitsubishi Heavy Industries*, it recognises up to ten faces and understands 10,000 words. Users can choose a male or female voice. Wakamaru is one metre tall. The robot weighs 300 kg and is expected to retail at between \$10,000 and \$14,000. It is powered by rechargeable batteries and moves around on wheels. According to *Mitsubishi*, the robot can act as a secretary, recording notes and reminding owners of appointments.

Currently, robots are used for dangerous specialist jobs, such as scientific and medical research and defence. Of course robotics remains an important part of automobile production. Robots could be made a lot cleverer and autonomous by developing AI systems (Artificial Intelligence). Wakamaru was created to help care for the elderly; a web camera in the robot allows doctors or family

members to keep an eye on the patient at all times. Speech recognition software and a built-in dictionary provide the robot's vocabulary.

EU businesses are very much behind Japan when it comes to pushing robots into new market areas. The EU spends about 50 million euros a year on research projects. Typically, the prototypes only become products between 10 and 15 years later. A lot of academic research has been carried out, but little in the way of support from industry. Ideally, governments and private companies could commission products. This, it is believed, would drive the robotics industry forward.

Could the future be full of such automatons? A UN annual 'World Robotics' report said that over 4 million robots could be doing jobs in homes by the end of 2007. At the moment there are about 137,000 robots in homes, but this figure is set to rise ... dramatically.

3 Read the whole article and summarise the main points.

4 Find one word in each line that does not collocate with 'research'.

- | | | | | |
|--------------------|------------------|-----------------|------------------|-----------------|
| 1 (a) important | (b) rechargeable | (c) extensive | (d) scientific | (e) academic |
| 2 (a) market | (b) recent | (c) up-to-date | (d) dramatically | (e) independent |
| 3 (a) to carry out | (b) to conduct | (c) to automate | (d) to undertake | (e) to do |

research

5 Discuss the following questions in small groups. Be ready to report your ideas to the class.

- (a) Would you buy a 'Wakamura'? If not, what could persuade you to change your mind?
- (b) Do you think high-scale investment in robotic research is important? Should government money be used?
- (c) What jobs do you think robots will be doing in the future?