

TOMORROW'S ROBOTS

LEVEL IV

Reading 2

UNIT 8

SKILLS:

- Details
- Scanning
- Connect information

GETTING STARTED:

Will humans and robots be interacting naturally in 50 years?



PEPPER, THE HUMANOID ROBOT

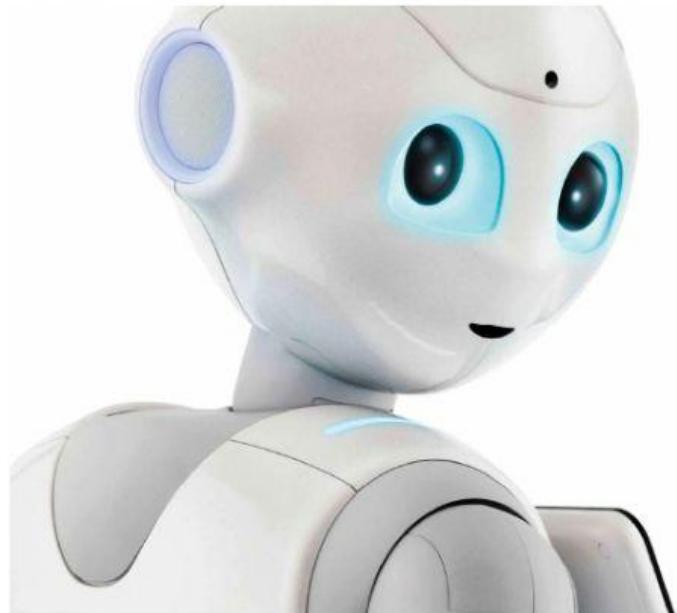
Pepper is a semi-humanoid robot that was manufactured by SoftBank Robotics. What is curious about this robot is that it was designed with the ability to read emotions. Introduced in 2014, Pepper's ability to recognize how people feel is based on detection and analysis of facial expressions and voice tones.

The robot's head has four microphones, two HD cameras (in the mouth and forehead), and a 3-D depth sensor (behind the eyes). There is a gyroscope in the torso and touch sensors in the head and hands. The mobile base has two sonars, six lasers, three bumper sensors, and a gyroscope, which allows him to learn about his environment and surroundings.

Standing 120cm tall, Pepper has no trouble in perceiving his environment and starting a conversation when he sees a person. The touch screen on his chest, which looks like a nicely designed tablet, displays content to communicate messages, and it supports speech. Her curvy human-like design ensures danger-free use and a high level of acceptance by users.

If you own a business, Pepper can become your brand ambassador. No matter if you run a restaurant, a hotel, a bank, or a medical office, Pepper's futuristic presence will give your customers a 21st century experience. It can present any type of information such as menus, tickets, company presentation, onboard speeches, etc., and it can automate a lot of the repetitive tasks humans do while servicing your visitors and customers.





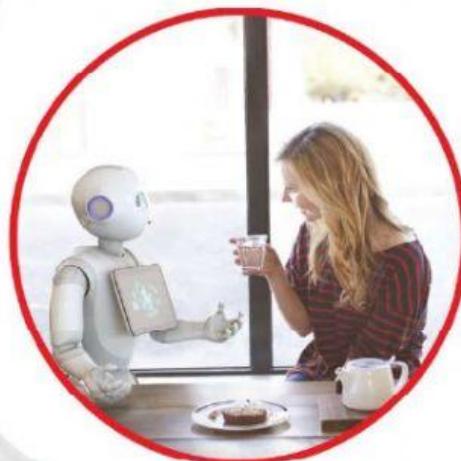
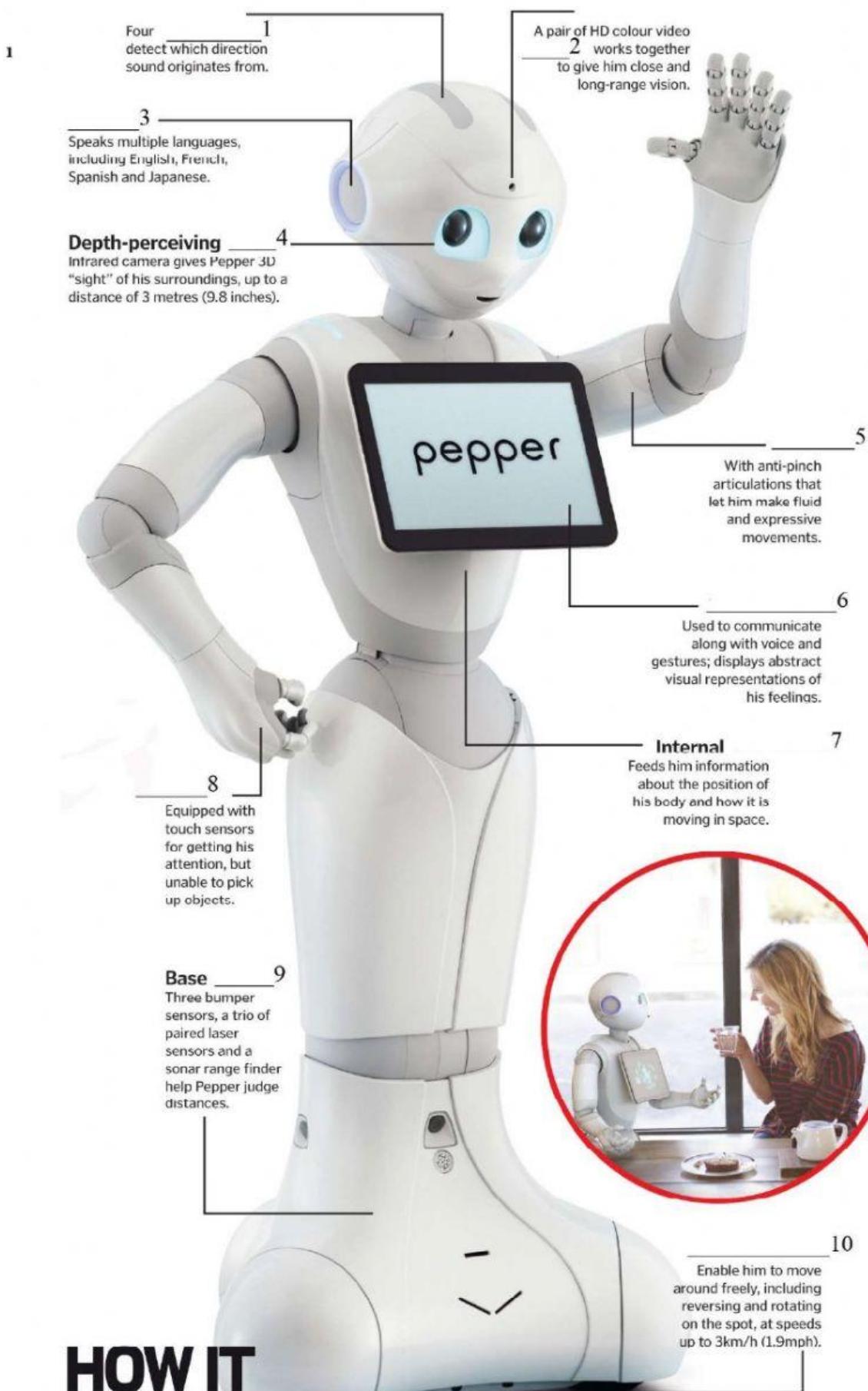
This is Pepper:

- 20 joints (like in arms and hands) for natural and expressive movements
- Speech recognition and dialogue through speakers available in 15 languages
- Perception modules to recognize and interact with the person talking to him
- Touch sensors, LEDs and microphones for multimodal interactions
- Infrared sensors, bumpers, an inertial unit, 2D and 3D cameras, and sonars for omnidirectional and autonomous navigation
- Open and fully programmable platform
- Omnidirectional wheels allow him to go around and explore different spaces

*Adapted from <https://business.robotlab.com/pepper-robot>



Complete the labels in the picture based on the information you find in the text:



HOW IT WORKS