

Robots everywhere

Grace Lourdes



1- Listening gap fill

A long time ago, robots _____ fiction. Children loved looking at movies with robots. Today, robots are real, and _____. In the future, we will all have robots. They will vacuum the floor, wash the dishes, _____ our cars. I even think one day we'll have robot friends. In Japan today, _____ making robots to help old people and to _____. It's still early days. I'd say we are another 20 to 30 years away from robots _____ in our lives. What will happen to us when the world is full of robots? There'll be no jobs. McDonalds will be _____. Maybe one day we won't be able to tell robots and humans apart. Maybe _____ world.

Robots everywhere

2- Look at the title and the picture on the right and choose:

I think this text/ video is about.....

- a- the history of robots.
- b- a description of the latest creations in robotics technology.
- c- the development of robotics projects in Switzerland.

3- Click on the image to see the video

Read the text and do the following activities.

Min: 0:00-0:16

3.- Tick the places where robots are used according to this expert:

- | | | | | | |
|--------|-----------------------|-----------|-----------------------|-------|-----------------------|
| Rivers | ☐ | Mountains | ☐ | Sea | ☐ |
| Homes | ☐ | Buildings | ☐ | Space | ☐ |



Min: 0:16-0:50

My name is Dr. Ashitei Trebi-Ollennu and I work at the NASA Jet Propulsion Laboratory.

These are the five robotics technologies that are going to change the world.

The first robot is RoboSimian which is a robot with multiple limbs, you can think of it as hands or legs.

It's designed for rescue missions, so where there's fire or there's an accident like a chemical spill or a nuclear accident RoboSimian will go in there and it can basically clean up. You can reconfigure RoboSimian for any job, and it's a very exciting robotics technology.

4- Think of a mission this robot could have been assigned in recent past years.

a- Where could RoboSimian been sent? b- List the tasks it could have performed?

It could have been sent to.....or to

It could have performed the following tasks: 1-.....

2-.....

3-.....

5- Watch and read the description of the 5 robots again

The next robot is Ada, which is a 3D printed robotic hand. 3D printing is going to transform the way we think about manufacturing. You can go in into your computer you can design anything and could push a button and make it. We have the ADA robotic arm, it's one of most dexterous arms around it's all 3d printed. So in a few years you can build your own and print your own robots in your bedroom.

Phoenix is a powered exoskeleton it comes in and assists you to be able to do things that you cannot do on your own. If you can wear an exoskeleton that is powered, you'll be able to lift a huge object. Also it could be very useful for people that are disabled in terms of mobility. so I think that is going to get humans to evolve into a hybrid of robots and humans.

The next robot is Pepper which is a humanoid with emotional intelligence. A robot should be able to sense its environment. once it senses the environment it should be able to think about its environment, basically computation, then thirdly it has to take action. For service robots there is a fourth dimension that is missing and that is empathy. and this is where PEPPER comes in. It has got emotional intelligence and that is going to change the way we interact with robots and how robots can be used in the household.

The last robot is the Curiosity Mars Rover. I've been very fortunate to work on a lot of Mass Rovers. The challenge there is to take a science instrument that basically fills a room on earth and then we shrink them into shoe boxes to be able to launch to different planets.

One of the robotic system on the rover is what we call the robotic arm. I've worked on all the robotic arms that have been to Mars. Basically, it's a human arm right so it's got an upper arm, it's got a shoulder, it's got an elbow, it's got a wrist, and you wouldn't believe it but curiosity only uses a 120 watts of power.

So if we bring all that technology to earth we can see that in remote areas around this world we'll be able to have really complicated medical instruments that will use very little power and will be able to accomplish a lot.

5- Drag the labels to the image of the right robot.

Robosimian 	for disabled people planet exploration	Phoenix 
Mars rover 3D printed	Pepper rescue 	robotic hand multiple limbs
exoskeleton Ada 	chemical spill nuclear accident emotional intelligence	Curiosity 

6 Take it further!

Scan the following article from La Nueva and watch the video. (Click on the images for reproduction)

La Nueva.

LA CIUDAD

El invento de los alumnos de Ingeniero White ya tiene su documental

Fue producido por la casa matriz de Samsung, luego de que se adjudicaran el concurso "Soluciones para el Futuro"

09:23 | 2/5/2019



Get ready to return to school Covid 19 closure comes to an end.



Think of your creative potential and the opportunities you get at our school.

- Do you think you could go further to develop a 3D printed robotic hand at school?
- What will you need?
- Who could help you?
- What other projects could you think of?

Write down your ideas.
