Robots!

Figure 1: Robots!

Robots

What is a robot?

A robot is a machine that can be programmed to perform a variety of tasks. These tasks can range from simple actions like moving objects from one place to another, to more complex actions like assembling parts or performing surgery. Robots can be designed to operate autonomously or be controlled by a human operator.

What sets robots apart from other machines is their ability to sense their environment and respond to it. They do this through the use of sensors such as cameras, microphones, and touch sensors. Based on the information they receive from these sensors, robots can make decisions about what actions to take.

Robots come in many different shapes and sizes, and can be designed for a variety of purposes. For example, some robots are designed to work in factories, while others are used in healthcare settings to assist with surgeries or help patients with mobility issues. As you study robotics, you'll learn more about the different types of robots and how they are used in various industries.

Overall, robots are an exciting and rapidly developing field in technology, and studying robotics can lead to many interesting career opportunities.

Glossary

English	Spanish	Example Sentence (English)
Robots	Robots	"**Robots** are used in manufacturing to automate repetitive tasks."
Machine	Máquina	"The robotic **machine** assembled the components with precision."
Programmed	Programado/a	"The robot was **programmed** to navigate through a maze."
Tasks	Tareas	"The robot was assigned multiple **tasks** in the industrial setting."
Actions	Acciones	"Robots can perform complex **actions** such as grasping and manipulating objects."
Moving	Mover	"The robot is capable of **moving** heavy objects from one location to another."
Objects	Objetos	"The robot detected and identified **objects** using its vision system."

English	Spanish	Example Sentence (English)
Place	Lugar	"The robot **placed** the finished product on the conveyor belt."
Assembling	Ensamblaje	"The robot is responsible for **assembling** electronic components in the production line."
Parts	Partes	"The robotic arm picked up the small **parts** and assembled them together."
Performing	Realizar	"The surgical robot is capable of **performing** precise and delicate procedures."
Surgery	Cirugía	"Robotic **surgery** offers the advantages of minimally invasive procedures."
Operate	Operar	"The robot can **operate** autonomously or be controlled by a human operator."
Autonomously	Autónomamente	"The **autonomous** robot navigated through the obstacle course without human intervention."
Controlled	Controlado/a	"The robot was **controlled** remotely by a skilled operator."
Human operator	Operador humano	"The robot collaborated with the **human operator** to perform complex tasks."
Environment	Entorno	"Robots use **sensors** to perceive and interact with their **environment**."
Sensors	Sensores	"The robot's **sensors** detected the presence of obstacles in its path."
Cameras	Cámaras	"The robot's **camera** captured high-resolution images for visual inspection."
Microphones	Micrófonos	"The robot's **microphones** picked up sound signals for voice recognition."
Touch sensors	Sensores táctiles	"The robot's **touch sensors** enabled it to detect and respond to tactile stimuli."
Decisions	Decisiones	"Based on sensor data, the robot made intelligent **decisions** to navigate its surroundings."
Shapes	Formas	"The robot's gripper was designed to handle objects of various **shapes** and sizes."
Sizes	Tamaños	"The robot adjusted its grip strength based on the **size** of the object it handled."
Purposes	Propósitos	"Robots are used in various industries for different **purposes**, such as manufacturing and healthcare."