

Lesson 1. Reading

Industrial Robots in Manufacturing

Industrial robots are an important part of modern manufacturing. They are used in factories to perform repetitive tasks quickly, accurately, and safely. Many products are manufactured with the help of robotic systems, including cars, electronic devices, and household appliances.

A typical industrial robot consists of a mechanical arm, a controller, sensors, and actuators. The controller processes information and sends commands to the robot. Sensors detect changes in the environment and provide feedback to the control system. As a result, precise movements can be performed.

Industrial robots are commonly used for welding, painting, assembling components, and handling materials. In a car factory, for example, metal parts are welded together by robotic arms. Vehicles are painted automatically, and many components are assembled without direct human intervention.

Although robots perform many tasks, human workers still play an important role. Engineers program the robots and technicians maintain the equipment. Safety procedures are followed carefully to prevent accidents, and the systems are inspected regularly to ensure proper operation.

Today, industrial robots continue to evolve. More advanced sensors are being developed, and artificial intelligence is increasingly being integrated into robotic systems. As automation expands, new opportunities are created for technicians and engineers who can work with these technologies.

Activity 1 – Reading Comprehension

Answer the questions.

1. Why are industrial robots used in factories?
2. What components does a typical industrial robot have?
3. What is the function of sensors?
4. Name three tasks commonly performed by industrial robots.
5. What responsibilities do engineers and technicians have?
6. What technological improvements are mentioned in the text?

ACTIVITIES:

Activity 2 – Active Voice vs Passive Voice

Read the sentences and write:

A = Active Voice

P = Passive Voice

1. Industrial robots are used in factories. _____

2. Engineers program the robots. _____
3. Sensors detect changes in the environment. _____
4. Vehicles are painted automatically. _____
5. Technicians maintain the equipment. _____
6. Safety procedures are followed carefully. _____
7. The systems are inspected regularly. _____
8. The controller processes information. _____

Read and answer:

- a. Which voice focuses on the person or thing performing the action?
- b. Which voice focuses on the action or the receiver of the action?

Activity 3 – Word Class

Complete the table.

Word	Meaning	Noun / Verb / Adjective
manufacture	_____	_____
controller	_____	_____
maintain	_____	_____
safety	_____	_____
automated	_____	_____
inspect	_____	_____

Word Formation

Complete the table.

Verb	Noun
manufacture	_____
operate	_____
automate	_____
inspect	_____
maintain	_____