LESSON 1

What is a Robot?

20 minutes | Robotics & Engineering Basics

WHAT THIS LESSON DOES

In this lesson, we will learn about robots - what they are, what they look like, what they can do, and how they work. We'll explore different ways robots are used in different industries and environments. By the end of the lesson, we'll have a better understanding of what robotics is and how robots are changing the world around us.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand the definition and basic components of robots.
- Recognise the variety of robot designs and their purposes.
- Identify the range of tasks robots can perform.
- Appreciate the diverse applications of robots across different environments.
- Evaluate the importance and benefits of robots in society.

BEFORE THE BELL

- Begin with an introduction to robots, explaining their autonomous nature and components like sensors and motors. Discuss the variety of robot appearances, from humanoid to animal-inspired and task-specific designs. Highlight the versatility of robots in performing tasks, from household chores to industrial assembly and exploration. Explain the basic functioning of robots, focusing on sensors, motors, and controllers. Illustrate the wide application of robots in settings like factories, hospitals, and hazardous environments. Conclude by discussing the importance of robots in performing dangerous tasks, increasing efficiency, and working alongside humans.

What is a Robot?

HOW THE LESSON RUNS

- Introduction
- Exploring the Appearance of Robots
- What can robots do?
- How do robots work?
- Where are robots used?
- Understanding the Importance of Robots