



# INTRODUCTION TO ROBOTICS



Funded by  
the European Union

# WHAT DO YOU THINK...?

What are  
robots?

What types are  
there?

How do  
robots help  
us?

Where do we  
see them?



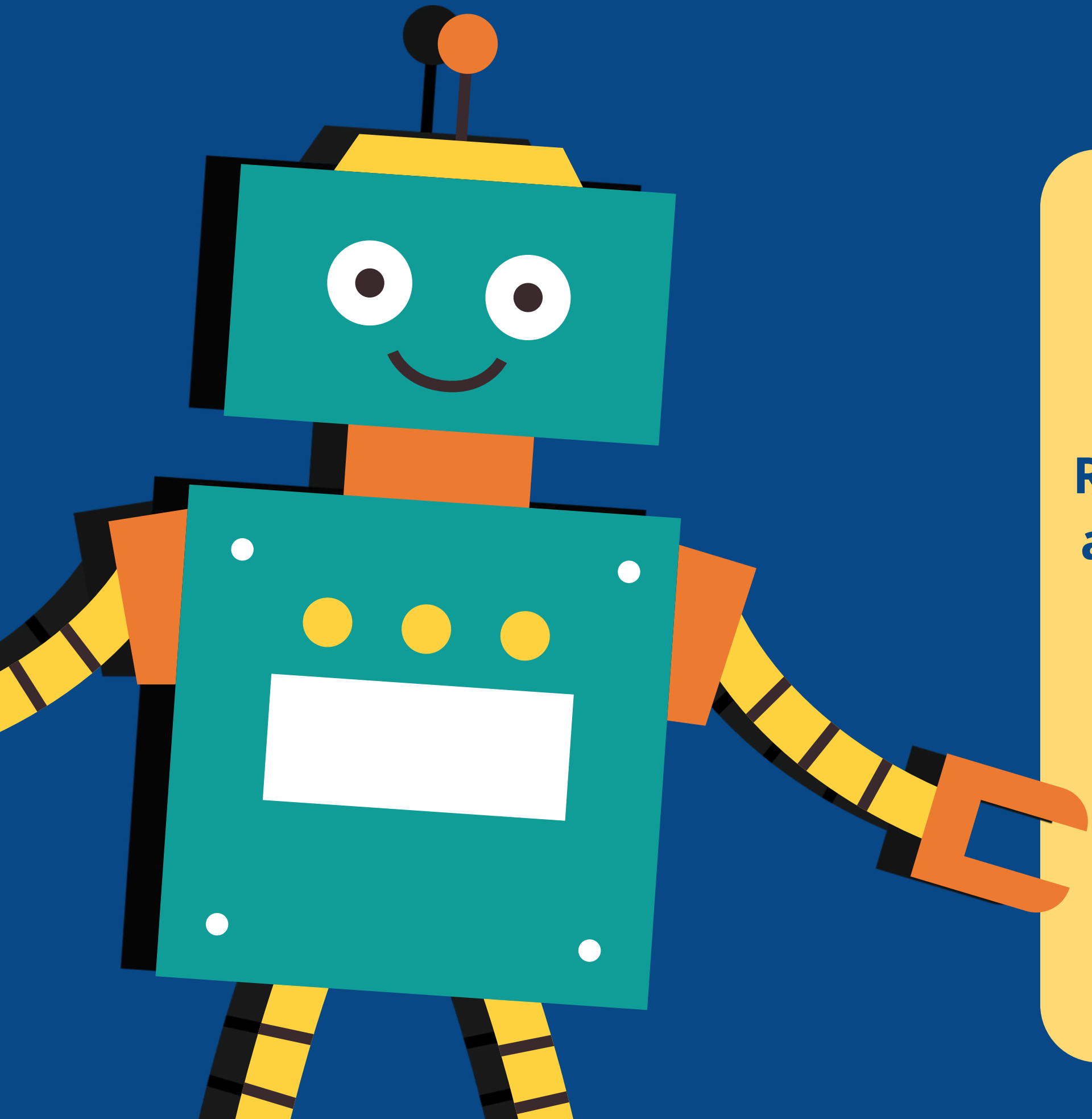
# WHAT IS ROBOTICS?

Robotics is a branch of technology that deals with designing, building, and using robots.

Robots are machines that can sense, think, and act to help humans in different tasks.

A robot usually includes:

- Sensors (to see or feel the environment)
- Controllers (like a brain to make decisions)
- Actuators (motors or arms to move)



# HISTORY OF ROBOTICS

 Before modern times (Ancient to Renaissance):

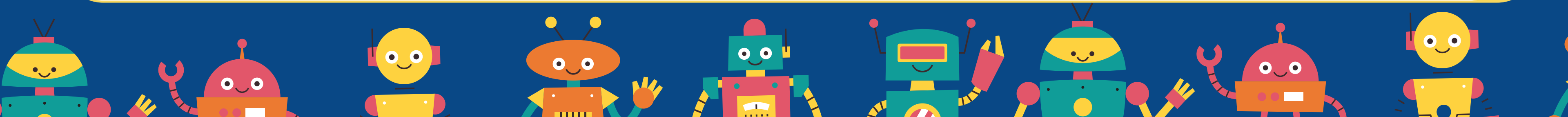
- 15th century: Leonardo da Vinci designed a mechanical knight that could sit, wave arms, and move its jaw.

 1700s–1800s: Mechanical Automata

- European inventors created wind-up machines (automata) that could draw pictures, play instruments, or mimic human actions (These were not true robots, but they inspired future robotic ideas)

 1900s: Birth of Modern Robotics

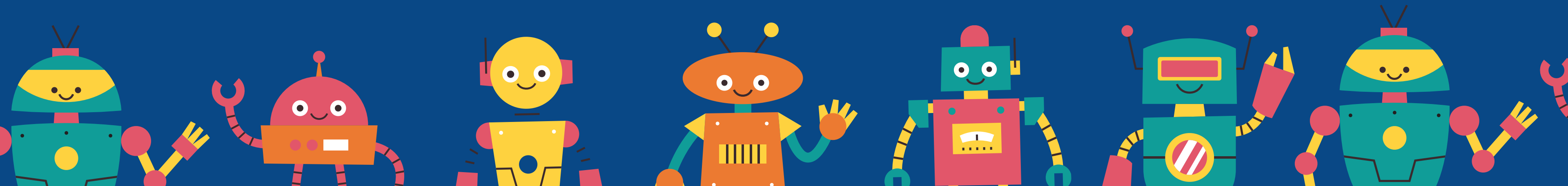
- 1921: The word "robot" was first used in a play called R.U.R. by Czech writer Karel Čapek.
- 1950s: Isaac Asimov wrote his famous Three Laws of Robotics.
- 1954: George Devol invented the first programmable robot, called Unimate.
- 1961: Unimate became the first robot used in a factory (at General Motors)

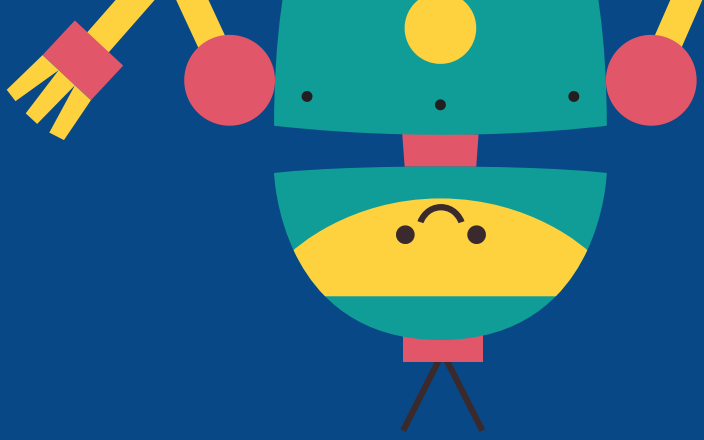


# HISTORY OF ROBOTICS

## 1900s: Birth of Modern Robotics

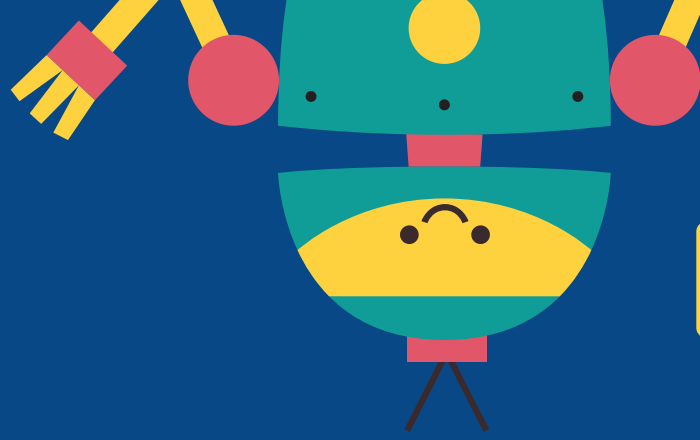
- 1921: The word "robot" was first used in a play called R.U.R. by Czech writer Karel Čapek.
- (It came from the Czech word "robota" meaning forced work.)
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# TYPES OF ROBOTS

Type	What it does	Example
Industrial	Builds things in factories	Robot arms in car factories
Service	Helps people in daily life	Vacuum robots (like Roomba)
Medical	Assists in healthcare	Surgical robots
Exploration	Goes where humans can't	Mars rovers
Entertainment	Built for fun or learning	Robotic pets, toys



# WHERE ARE ROBOTS USED?



**Manufacturing – to make products faster**



**Healthcare – to assist doctors and perform surgeries**



**Exploration – space, oceans, volcanoes**



**Homes – vacuuming, security, helping elderly people**



**Education & Games – coding toys, robot competitions**



**Customer Service & Retail – Some robots guide people in airports or shops, or even serve food.**

THANK YOU

