SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+'
Grade Approved by AICTE, New Delhi & Affiliated to Anna University,
Chennai

DEPARTMENT OF AEROSPACE ENGINEERING

19ASZ301– ROBOTICS & AUTOMATION IN SPACE

III YEAR VI SEM

UNIT 2 –INTRODUCTION TO ROBOTICS

TOPIC - INTRODUCTION TO ROBOTICS

ROBOTICS

Introduction to Robotics

Robotics is a multidisciplinary field involving the design, construction, operation, and use of robots—machines capable of carrying out complex tasks automatically, especially those that are repetitive, dangerous, or require high precision.

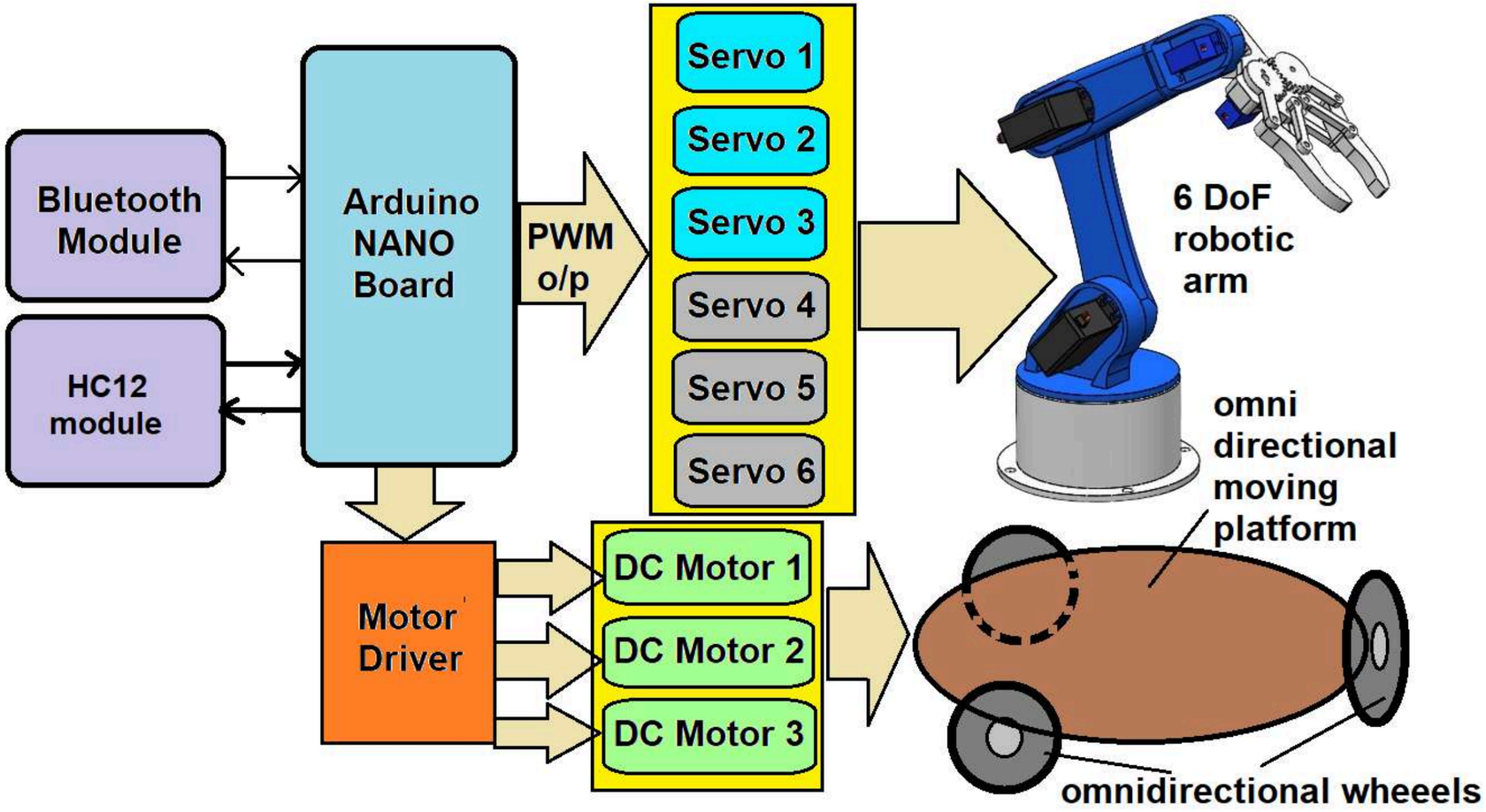
📌 **Definition of a Robot**

A robot is a programmable machine capable of performing tasks by:

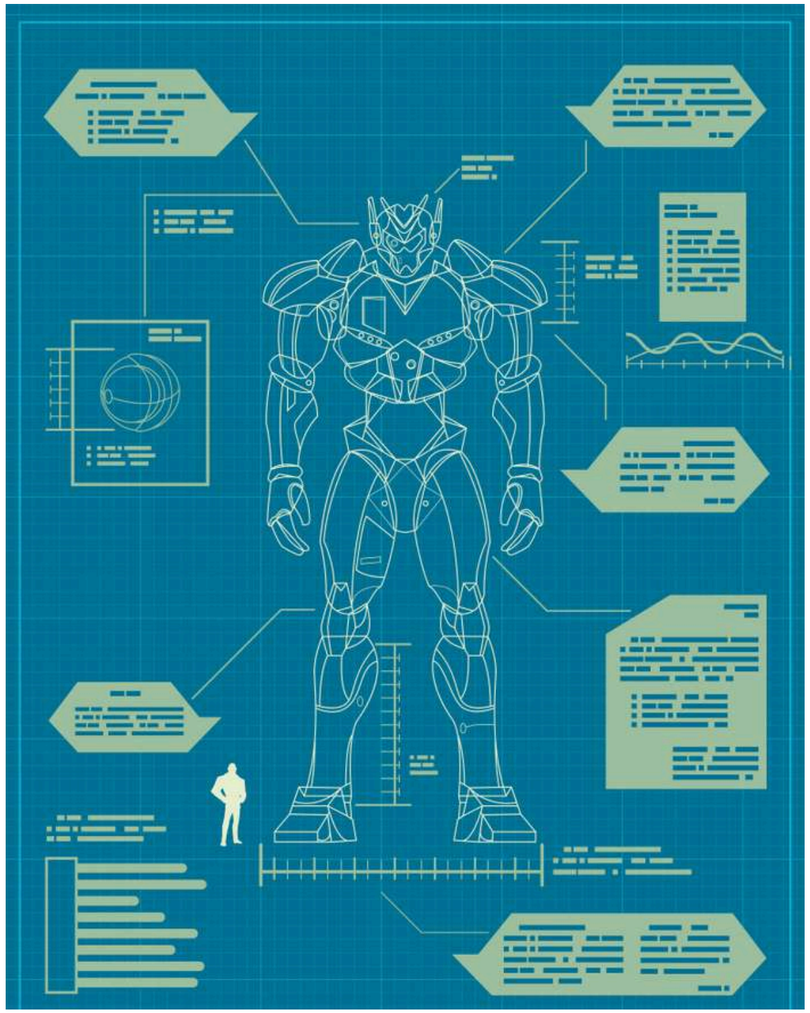
- Sensing the environment
- Processing data
- Acting physically (e.g., moving arms, wheels, or tools)

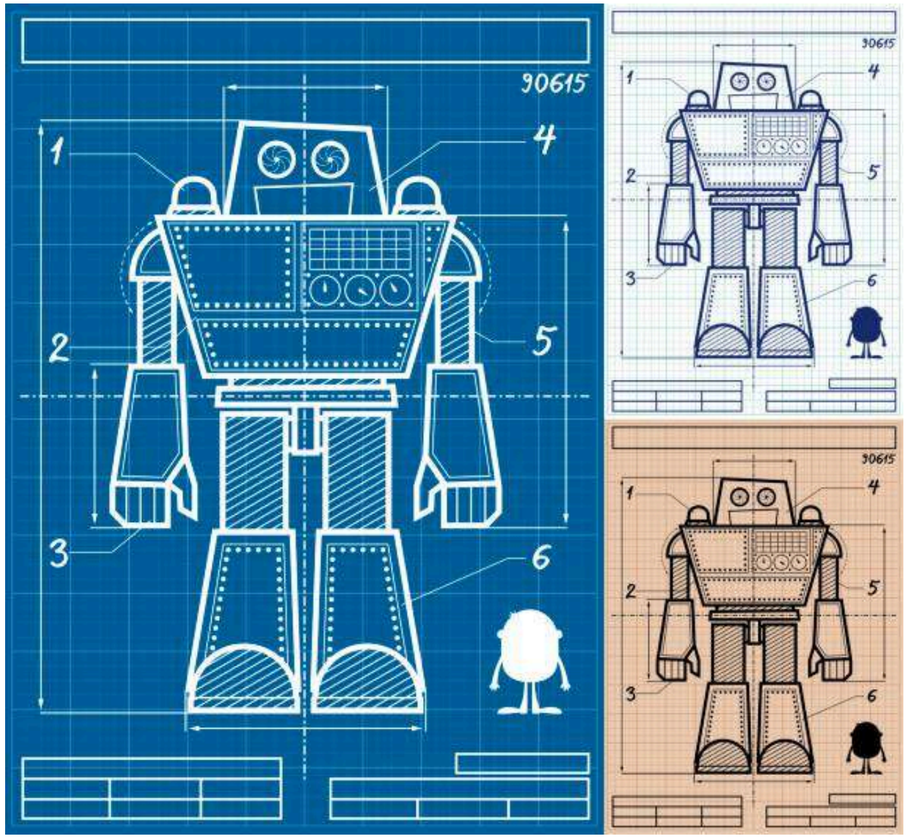
Type	Application Example
Industrial Robots	Welding, painting, assembly lines
Mobile Robots	AGVs in warehouses, Mars rovers
Humanoid Robots	Research, customer service
Medical Robots	Surgical assistance (e.g., Da Vinci robot)
Service Robots	Cleaning, delivery, customer interaction
Military Robots	Reconnaissance, bomb disposal

INDUSTRIAL ROBOT



BLUEPRINT OF ROBOT





Thank You