

Sensors and Robotics Technology

Introduction to Robotic Unit - 3

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Block Diagram representation of various Industrial Applications of Robots

- Medical
- Mining
- Space
- Underwater
- Defense
- Security
- Domestic
- Entertainment.

Medical

- Core Components of a Medical Robot System
- Block Diagram for a General Medical Robot Application
- Surgical Robots
- Rehabilitation Robots
- Pharmacy Automation Robots
- Medical Imaging Robots

Mining

- Block Diagram Representation of Mining Robot Applications
- Mineral Extraction
- Material Handling
- Inspection and Maintenance
- Autonomous Vehicles

Space

- Block Diagram Representation of Space Robot Applications
- Space Station Maintenance and Repair
- Space Debris Removal
- Planetary Exploration
- Space Assembly and Construction

Underwater

- Block Diagram Representation of Underwater Robot Applications
- Ocean Exploration and Research
- Inspection and Maintenance of Underwater Structures
- Search and Rescue
- Environmental Monitoring

Defense

- Block Diagram Representation of Industrial Applications of Robots in Defense
- Unmanned Aerial Vehicles (UAVs)
- Explosive Ordnance Disposal (EOD) Robots
- Autonomous Ground Vehicles (AGVs)
- Robotic Exoskeletons

Security

- Block Diagram Representation of Industrial Applications of Robots in Security
- Surveillance Robots
- Perimeter Security Robots
- Explosive Ordnance Disposal (EOD) Robots
- Access Control Robots

Domestic

- Block Diagram Representation of Domestic Robot Applications
- Vacuum Cleaning Robot
- Lawn mowing robots
- Window cleaning robots
- Companion robots

Entertainment

- Block Diagram Representation of Industrial Applications of Robots in Entertainment
- Theme Parks
- Stage Performances
- Interactive Exhibitions