

# Robotics Curriculum

## Unit 1

### Introduction to Robots

1. Introduction to Robots
2. History of robots
3. Classification of Robots

## Unit 2

### Basic Elements of a Robot

1. Controller and power supply
2. Links, Joints and end effectors
3. Sensors and Motors

## Unit 3

### Introduction to WynRobo Educational Kit

1. General Components
2. Mechanical components
3. Electronics components

## Unit 4

### Control System

1. Electronic controller/brain
2. Remote control

## Unit 5

### Basic Structure

1. Assembly of components to build basic structures
2. Instructions and general precautions
3. Four wheel base and three wheel base
4. Motion control with gears

5. Function and application of different structures

## **Unit 6**

### **Robot Construction**

1. Soccer Robot
2. Claw robot
3. Robotic crane
4. Pulley based Robot

## **Unit 7**

### **Advance Robots**

1. Advance Constructions
2. Gripper Robot
3. High torque robotic crane
4. High speed base
5. Dumper

## **Unit 8**

### **Quiz**

1. Quiz on Robotics
2. Quiz on structure development from WynRobo Educational Kit