Robot Operating System

Level 12 | 48 Hrs. | Age group : 12 yrs. +

Description

This course give students an excellent platform to learn the concepts of Robotics through Virtual Robots by using them to do different tasks & share their developed applications to robots such as turtle Bot, Kuka, Bosch etc. The Course is full of interesting & real-life applications which help augment the creativity of kids to create masterpieces. This is the technology used for manufacturing Robots in industries. For Example: Boston Dynamics

Skills you will Develop

- Logical Thinking
- Programming skills like Python, C++, C
- Problem Solving Skills
- Creativity
- Decision Making Skills
- Application of 3D design

Eligibility

- Interest towards Coding, designing and Building applications
- Previous knowledge of Mechanical Design (Level 5), Arduino Basic and Advance (Level 7 & 8), and Python Basic and Advance (Level 9 & 10)

What will you Learn ?

- 20+ Projects on ROS.
- Move the bot with keyboard
- Getting the position of the bot
- Straight motion utilizing the position and velocity to move the bot
- Reach the destination
- Home cleaning bot
- BB8 Robot to move in circle or rectangle

- Guide the Turtle Robot to find the way
- Robot Detection and processing in Open CV
- Tennis Ball Detection using Open CV
- Object detection using laser
- Create your own environment in Gazebo
- Create your own robots
- Simulating your Curiosity Mars Rover