Virtual Robotics

Level 11 | 48 Hrs. | Age group: 12 yrs. +

Description

From primary through to secondary school, Virtual Robotics is a coding environment that meets students at their level.

Virtual Robotics is both Block-based and Text-based interface. Students use a simple drag and drop interface to create functioning projects. Virtual Robotics is providing opportunities for students of all ages to participate in learning the code that makes these robots work, it makes computer science come to life through hands-on projects, and engaging experiences.

Skills you will Develop

- ▼ Logical Thinking
- ▼ Programming skills like Python Applications.
- ▼ Problem Solving Skills
- ▼ Decision Making Skills
- Application of Elementary Geometry skills.

What will you Learn?

- ▼ 90+ Projects on Virtual Robotics
- Application of Python basic in block based and text based both to a Virtual Robot
- ▼ Scratch like UI for Block based coders
- ▼ Proper use of Elementary level Geometry skills
- ▼ Draw different shapes using Geometry methods
- ▼ Making a Dynamic Wall Maze solver Algorithm
- Use of Virtual robot Bumper sensors to detect jerks during movement

Eligibility

- Interest towards Coding, designing and Building applications
- Previous knowledge of Python Basic and Advance (Level 9 & 10)

▼ Use of VR Distance sensors to detect obstacles and measure distance

 Use of Virtual robot Cameras to detect front and down objects as well as their colors

 Make algorithm to Detect binary and convert it into English letters using ASCII Table

- ▼ Learn the importance of a 2D lists
- Exposure of different Virtual Reality playgrounds to simulate Virtual Robot in different environments and make algorithms for different tasks

