



# Junior LEGO Robotics

## Guidelines for Online Learning

### **Learner's General Point of Consideration**

- ◆ The learner must get familiar with the Session's Interface and understand:
  - ▶ How Session is going on?
  - ▶ How to Toggle window between the sessions and Software while performing activities or wherever instructions provided
  - ▶ How to perform any Quizzes & Activities
- ◆ Lesson Plans must also be reviewed in-advance to meet all the requirements before the sessions start
- ◆ It is necessary to visit all the reference links to reinforce the concepts

### **System Specification**

#### A) Operating System

- ▶ Windows: Windows 7, Windows 8, Windows 8.1, Windows 10 or newer
- ▶ Mac: OS X – Lion or better
- ▶ Intel processors (i3, i5), AMD processors (A8, A10)
- ▶ 4 GB of RAM
- ▶ Integrated graphics card

### **Digital Equipment**

- ◆ Laptop or Desktop

### **How to Perform "Junior Robotics Session"**

- ◆ Under the Parents guidance, create an account with a valid email ID.
- ◆ It is required to save the ID for future use by noting it down in notepad.
- ◆ Please go through the "Lesson Plans" for each day
- ◆ Lesson Plans are prepared for Each Day with the following details:
  - ▶ Estimated Time Requirements & Objective of the Session
  - ▶ Learning Resources Link
  - ▶ Software Links and other important links for the session
  - ▶ Details of Learning Materials if required

- ◆ Once the session starts reloading again and audio/video is paused due to bad internet connectivity, then refresh the page
- ◆ Our Junior Robotics sessions contain the Topics based on Storytelling concepts, Objective of Session, Summary, Assignment & Knowledge Check Quiz. It also contains the “Steps of Instructions” for performing Activity
- ◆ Activity’s Instructions and Knowledge Check Quiz must not be skipped
- ◆ Performing Activities enables Learners to understand the logics and concepts applied in robotics or automation.
- ◆ Number of Interactions performed under Knowledge Check Round reflects Day-wise Performance of Child through Results
- ◆ For performing any activities, the toggling of a window between instructions and software must be followed as mentioned on the Activities slides
- ◆ Time Requirements may vary Day-wise or Activity wise depending upon the Topic Covered.
- ◆ However, the Estimated Time for the Session is 60 Mins.
- ◆ Each Day learning links are provided on the session itself for performing any Assignment.

### Section- V “Software Guidelines”

- ◆ In order to perform any robotics activity, you need to Login to the software and create your own Microsoft account in the Virtual robotics tool kit.
- ◆ To get login and create Microsoft account you must need a valid contact number or E-mail ID.
- ◆ Standard procedure for getting login is provided, however, the software interface may show variation while login
- ◆ The software works online so ensure you are logged into it every time you perform the activity.
- ◆ Once activities performed, saving of file is mandatory
- ◆ Robotics Software used to have lots of Icons and Tools and hence it is suggested to visit learning link mentioned on a lesson plan for better understanding
- ◆ Effort has been done to cater specific tools day-wise
- ◆ Session is so designed that each day learners will learn new concepts for building strong base Robotics programming software’s programming based on GUI or block programming.
- ◆ Resource File (Software Files) are also available for performing activity (correspondence links are provided in the session itself)
- ◆ For better clarity, in each session, all the steps from scratch have been incorporated
- ◆ All the programming steps are designed to infuse some logic and these are applied through adding loops and functions. If any block or steps are missed, the robot won’t perform properly

**Note:** Estimated Time Duration for Completion of Course is 3 Months

***To complete the session, learners are required to score at-least 40 percentage***