Senior LEGO Robotics

Guidelines for Online Learning

Section-I 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

Section-II 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

Section- III Digital Equipment

- ◆ Laptop or Desktop

Section- IV How to Perform "Robotics Session"

- ◆ Once you download the software into the session, 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 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 download and 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
- To explore the Robotics Software maximum features or for long period, you need to purchase software of their own or may also get its subscription as the company provide 15 days Trial period.
- Once activities performed, saving of file is mandatory
- For performing programming activity, you need to split the screen between programming software and Virtual robotics toolkit software.
- 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 programing 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