

EARLY SIMPLE MACHINES



**TEACHER:
CERTIFIED
TRAINER**

**DURATION:
12 CLASSES (1 HOUR PER
CLASS)**

**MODE:
OFFLINE**

Designed to help young students begin to understand basic real world science concepts and the world around them. Each session consists of building new non-motorised, working models and understanding its relation to real life application and also learning basic science and math concepts of that particular model. Imported robotic kit will be used by children for building which will be of high-quality plastic respectively, designed by Lego.

COURSE CURRICULUM

-Introduction to the Robotic Kit and Components. (Beams, Axles, Gears, Bushes, etc.)

- Gear meshing
- Surface area
- Distance
- Force and pressure
- Motion concepts
- Pulley concepts

- Direction concepts (clockwise and anti-clockwise)
- Energy transfer and flow
- Practical experiments and observations
- Robotic models in relation to real life applications

Detailed Structure of the classes:

- Introduction and Identification of the Mechanical Components.
- Self-Assembly of the Robotic Model under the supervision of Certified Trainer.
- Description of STEM Concept.
- Practical experiments, observations and challenge.