EXPLORER

The Explorer package is perfect for students who wish to delve into coding and computer courses and robotics, aiming to create basic applications. No prerequisites are required to enrol in any of these programs.

ROBOTICS & 3D DESIGN WITH TINKERCAD

12-15 Yrs| 24 Classes| 3 Months| 50 Minutes| Certificate of Achievement

Learn the basics and core concepts of robotics and how to create 3-dimensional designs with our explorer course.

- Computational Thinking
- Sequentially Thinking
- Logical Thinking & Problem Solving

LESSON PLAN

Class	Topic	Class	Project
1	Introduction to Tinkercad	Introduction to the Tinkercad platform	Tinkercad
2	Introduction to circuit design	Concepts of power , circuit , and project	Single bulb
3	Resistance , Potentiometer	Introduction to the concept of resistance , potentiometer in circuit design	Potentiometer activity
4	Introduction to Arduino	Components of Arduino and the application of Arduino	Arduino
5	Mini Arduino project	Students learn to create blinking lights project	Blinking light
6	Traffic light controller	Creating a traffic light controller using LEDs	Traffic light
7	Sensors	Humidity and Temperature sensors	Humidity & Sensor
8	Ultrasonic Sensor	Ultrasound sensors and project	Project
9	Motion Detection	Motion sensor light circuit	Project
10	Smart Dustbin with sensor	Project	Garbage sorter
11	Security System	Security system using an Arduino board	Project
12	Car parking System	Students learn to create a smart car parking system.	Project
13	MQ135 sensor	Project details with Arduino board	Project
14	Introduction to 3D designing	Introduction to 3D designing and its applications.	Tinkercad
15	3D Dice project	Shapes in 3D environment , and create a 3D dice	Dice project
16	Application of Tinkercad toolbox	Building 3D objects	Pen Stand
17	Simple Car project	Building a 3D Car	CAPSTONE PROJECT

**Lesson plan indicates the topics and projects and should not be read as topics covered per class.*