

COURSE OVERVIEW



This 3-month course equips teachers and parents with the knowledge and skills to teach robotics to children using Scratch, Tinkercad, Arduino, and 3D modelling. The course is structured into three independent modules, ensuring accessibility regardless of prior experience. Each week consists of an online session, a practical project, and a short quiz to reinforce learning.

Objectives

- Introduce teachers/parents to robotics as a STEM teaching tool
- Understand the basics of block based programming
- Basics of electronics
- Using 3D modelling to design 3D printing model

Lesson Plan

- Month 1: Scratch Programming & Electricity Basics: Scratch Programming & Electricity Basics
- Month 2: Electronics & Arduino with Tinkercad
- Month 3: 3D modelling & 3D printing including project



Course Format

- 1 Online Class a Week
- 1 Practical class a month (optional)
- Proficient in using computers



Software used

- Scratch
- TinkerCAD
- Arduino
- Creality Print



Requirements

- Laptop or computer
- Robotics kit (will be made available during class)
- Internet connection



PRICING

R1200

PER MONTH

- Weekly live sessions
- Access anywhere in the world
- Online support & Community
- Access is valid for 6 months
- Mobile & Web Learning Platform
- Completion certificate

R550

PER PRACTICAL

- The practical class is optional for those who can attend, and it will be paid for at the beginning of each month. Limited space is available.

Robot Kit-R1250

The kit is based on the Arduino and ESP development platform and includes the following.

- Arduino UNO
- USB Cable for UNO
- Ultrasonic sensor (HC-SR04)
- ESP 8266 or ESP32 (ESP-01 or similar module)
- Servo SG90
- Jumper wires mix pack
- Resistor pack
- LED mix pack
- Relay switch
- Photoresistor
- Potentiometer
- Breadboard small
- Male header pins
- LCD 16x2 (I2C version assumed for simpler wiring)
- 9V battery connectors
- Push buttons mix pack
- Buzzer
- USB Cable Micro USB or Type-C USB (for ESP8266)
- RGB LED (Common Anode or Common Cathode)
- Submersible pump

Notes:

1. For both the online and in-person courses, you will need a computer or laptop to do the exercises.
2. You will need internet access to do the work.
3. Discounts are available for schools and groups of 5 or more.
4. We also offer custom courses to suit your school or business needs