



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
- 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
- Proficient in using computers
- Proficient in basic



Technology used

- Fusion 360
- TinkerCAD
- Arduino
- CURA



Requirements

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

Practical classes will be held on Saturday's around Sandton, Johannesburg.