NEXT GENERATION ROBOTIC EDUCATION

GENIUS 1000 bit 0001 ACADEMY
"WE CHALLENGE CURIOUS MINDS..."

ONLINE COURSE

"Work with real tools while you learn virtually"

GENIUS bit ACADEMY

Foundation in Robotics – Level 1

Age 6 to 10

COURSE CONTENT

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WHO WE ARE

A bunch of disruptive critical thinkers who are determined to make a difference in young adults in Sri Lanka.

OUR VISION

Arming the next generation kids with the technical know-how and the innovative skill-set necessary to challenge the frontiers of world technologies.

OUR MISION

Armed with a strong basic foundation on IOT and robotic principles we are determined to challenge dormant young minds to think differently and to shape them to be intuitive problem solvers in electronics who would independently recognize the need to adapt to the constantly challenging landscape.

COURSE CONTENT

Programming Fundamentals

- Introduction to Flowcharts
  - Flowchart symbols and shapes
  - The correct way to draw flowcharts
- Code with Blockly games (Maze)

Blockly Games is a series of educational games that teach programming. It is designed for children who have not had prior experience with computer programming. By the end of these games, student will be ready to use conventional text-based languages.

Microcontrollers programming – Micro:bit

- The history, the impact and the physical overview of the BBC Micro:bit
- The basic programming concepts like loops, logic, variable, and math operations in the MakeCode Block editor
- The working principle of all the peripherals on the BBC Micro:bit, like the LED Matrix, the button, the accelerometer, the compass, and the Radio. You will also learn the concept of serial communication
- To use the LED Matrix of the BBC Micro:bit to display custom images and animations
- To use the buttons on the BBC Micro:bit to trigger events
- Using an embedded sensor to program

“The only way to do great work is love what you do”

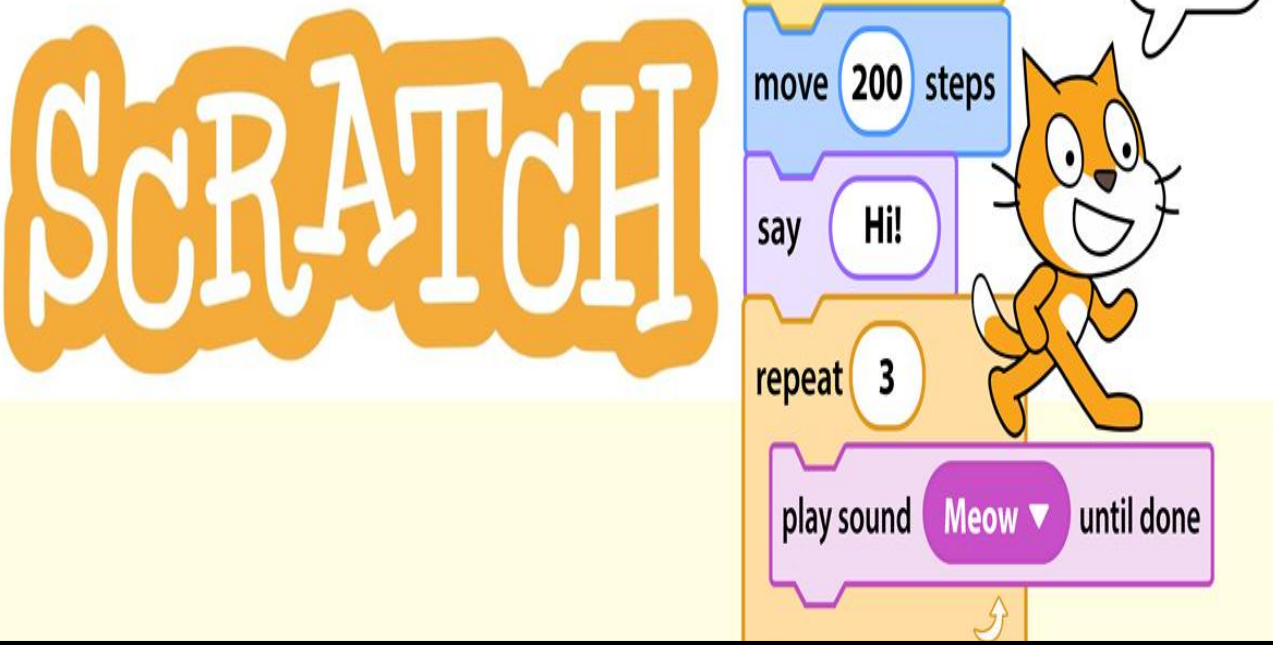
• - Steve Jobs -

Basic Electrical and Electronics

- Basic Electrical and Electronics theory
- Circuit simulation
- External components connecting with Micro: bit

Scratch

- Introduction to Scratch programming
- Learn about each category of Scratch blocks and how they are used to create animations and games
- Create a game with Scratch
- Micro:Bit is used to play the Scratch game



KODU

- Introduction to KODU
  - Installation KODU
  - Connecting Micro:bit and Kodu platforms
- KODU programming basics
- Creating a KODU game connected within Micro: bit
- Making a KODU game that is related to Micro: bit

Entry Requirement – For Age 6 to 10

Language – English

Methodology – Lectures / Practical

Duration – 20 Sessions

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