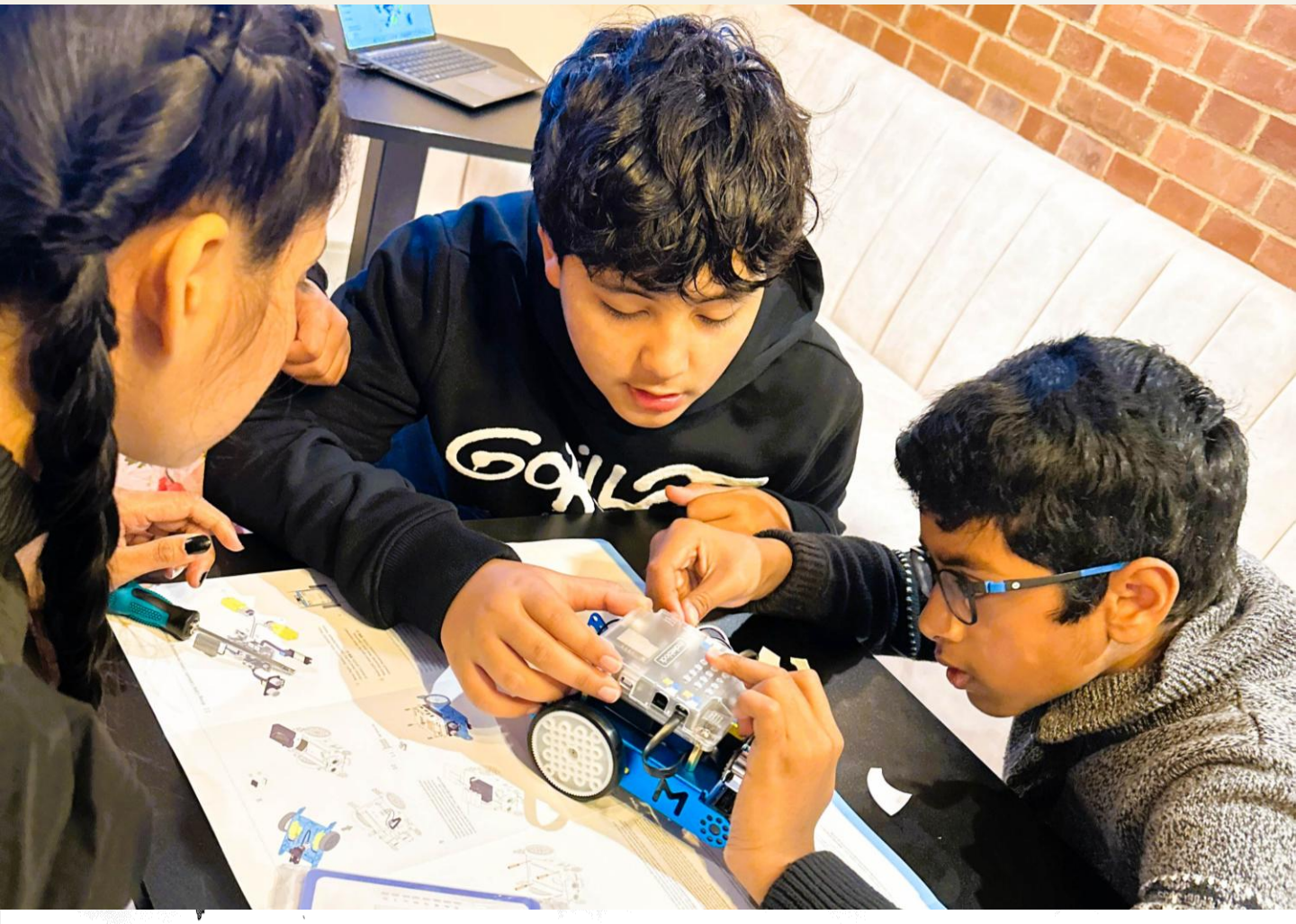
NEXT GENERATION ROBOTIC EDUCATION

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

ONLINE COURSE

"Work with real tools while you learn virtually"



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Certificate in Robotics & IoT
Level -2

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.

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COURSE CONTENT

Programming Fundamentals

- Python and MicroPython
  - Introduction to Python and MicroPython
  - Types, operators and expressions
  - Decision Making (If, If - Else, If - Else If - Else, Switch)
  - Loops (While, Do - While, For)
  - Functions and program structure

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Internet of Things

- Introduction to IoT
- Data visualization
- Mechanisms of handling generated data
  - Data transmission
  - Data manipulation
  - Automation

Robotics

- Introduction to Robotics
  - Basic Concepts
  - Definitions and Systematization of Manipulators and Robots
- Laws of Robotics
- Robot mechanism concepts

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

- Steve Jobs -

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Electrical and Electronics

- Understanding basic electrical theories
  - Voltage
  - Current
  - Resistance
- Types of energy sources
- Understanding types of current flow
- Circuit Design & Electronic Circuits
  - Designing basic circuits
  - Explore logic gates
  - Understanding complex electrical schematics
  - Designing printed circuit boards
- Wireless technologies
- Sensors
  - Different types of sensors & their uses
  - Sensor applications in industry

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“Live your life as an Exclamation rather than an Explánation”

- Isaac Newton -

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Entry Requirement	- Completion of Certificate in Robotics & IoT - Level 1
Language	- English
Methodology	- Lectures / Practical
Duration	- 20 Sessions

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