# **G-CODERZ ADVENTURE**

## **Course Overview**

The G-Coderz Adventure Course will empower the students with the basics of coding and robotics, an exciting interdisciplinary STEM field. The course provides an online simulation, a visual code editor, embedded content, class management and more. The course includes seven lessons covering multiple topics, including navigation, turning and angles, basic math and geometry, loops and various skills related to programming.

Entry Requirement	: Basic Computer Knowledge
Course Duration	: 15 hrs.
Mode of Training	: Face to Face Training

## **Course Content**

#### Module 1: Adventure Peak

- Introduction to G-Coderz platform
- Basic understanding about robot movement and action
- Understand the concepts of driving backward and forward for set distances and performing right-angle/90-degree pivot turns.
- Learn to analyse the robot's environment and plan a route to reach the target.
- Learn how to use Explore Mode to explore the scene before coding

## Module 2: Frozen Island

- Use Explore Mode to view the scenes from above
- Analyse the robot's environment and plan a route to reach the target
- Practice addition, subtraction and division

## Module 3: The Lost City

- Use Explore Mode to discover the distances needed to drive.
- Learn the concept of Delay/Wait.
- Get to know the new Wait For and Repeat blocks
- Practice writing pseudocode
- Understand the need for loops and how to code with them
- Practice problem-solving



www.gteceducation.com.sg

#### Module 4: Crystal Crater

- Have a basic understanding of geometry, angles, parallels, vertical angles, adjacent angles etc
- Get to know the angle parameter of the Turn block
- Practice using Explore Mode to discover angles drawn on the road
- Practice mapping the robot's environment and problem-solving

#### Module 5: Candy Town

- Define radius, diameter and circumference
- Comprehend what a smooth turn is, how the robot performs it, and what it is useful for
- Know how to expand the Turn Block to enable smooth turns based on radius and angle
- Create even more complex programs and practice loops
- Practice problem solving, pseudo-code, and efficient programming

#### Module 6: Sketch It

- Learn to use the Trail blocks
- Refine their planning and pseudo-code writing
- Practice all the skills they have learned up until now: driving forward and backward, angles, screw and smooth turns

#### Module 7: The Milky Way

- Refine their planning and pseudo-code writing
- Practice all the skills they have learned up until now: driving forward and backward, angles, screw and smooth turns
- Practice using Explore Mode and its various features
- Create an efficient code in which the robot completes the course in the quickest time possible

# **Company Profile**

What We do :	G-TEC Computer Education Centre is an Information Technology company in the field of Software Training, Technology Resourcing and Knowledge Consulting. We provide Corporate Training, Project Training, and Customized Training, One to One trainings for professionals, individuals and students.
Who are our Customers :	We have special teaching methodologies to train people in different categories ranging from corporate clients to school level students. Over 900000 students are certified by G-TEC all over the world. We have the privilege of working with some of the most well-known companies in the world.
Where we are :	G-TEC Computer Education Centre is the largest computer education networks with more than 510 centers all over the world and corporate office in Singapore. We are operating in Mexico, Qatar, India, Dubai, Singapore, Kuwait, Srilanka and Iran.
Our Goal and Focus :	Our aim is to make IT education affordable to all sections of society through various projects associating with government's quasigovernment public and private company to reach each and every corner. Our ultimate goal is to achieve cent percentage computer literacy. We are committed to provide 100% quality training to all; our focus is to provide Quality Education World Wide.

# **Our Location**



Nearest MRT: Dhoby Ghaut-Exit A / Little India-Exit A/ Bencoolen-Exit B Bus Services: 64, 65, 131, 139, 147, 166, 857 Nearest Bus Stop: Peace Centre, Stop ID: 07011