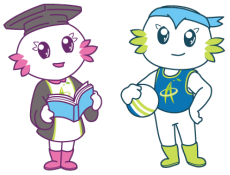
香 港 資 優 教 育 學 苑
The Hong Kong Academy for Gifted Education
香港特別行政區政府教育局資助
Subvented by the Education Bureau, the Government of the HKSAR



Learn about Gigi & Yoyo

A3AER001C
(Token- required)

[Gifted Programme]

STEAM Course (Level III)

All-Terrain Exploration with UGOT – Cross-Scenario AI Robotics Programming

Vinci AI



Application Deadline
30 Nov 2026 12:00 noon

Result Release
9 Dec 2026

Intended Learning Outcomes

Upon completion of the gifted programme, gifted students should be able to:

1. Analyse and apply appropriate mechanical structures to overcome specific physical terrain challenges;
2. Develop and optimise structured graphical programmes in uCode incorporating logical blocks, motor control, and sensor telemetry;
3. Implement and configure AI sub-systems, including computer vision (colour/shape tracking, facial/emotion recognition) and voice interaction modules;
4. Design and execute comprehensive engineering solutions within a team to resolve multi-stage, real-world simulation tasks during the final showcase; and
5. Demonstrate resilience and a collaborative mindset when troubleshooting complex programming errors or mechanical failures within a team environment.

If student members withdraw from the programme after the Application Deadline, the token will be deducted.

Gifted Programme Introduction

UGOT is an innovative educational robot capable of rapidly transforming into seven different configurations. In this course, students will step into the role of all-terrain explorers, using UGOT to complete a series of simulated space missions. Through graphical or Python programming commands and sensor data, participants will learn to integrate artificial intelligence technologies to perform object, facial, expression, and voice recognition, tackling challenges such as positioning, navigation, exploration, and robotic operations. These hands-on tasks are designed to strengthen students' logical thinking, problem-solving skills, and creativity.

Schedule

Session	Date	Time	Venue
1	9 Jan 2027 (Sat)	9:30 am – 12:30 pm	Room 201, HKAGE
2	16 Jan (Sat)	9:30 am – 12:30 pm	Room 201
3	23 Jan (Sat)	9:30 am – 12:30 pm	Room 201
4	30 Jan (Sat)	9:30 am – 12:30 pm	Room 201
5	13 Feb (Sat)	9:30 am – 12:30 pm	Room 303
6	20 Feb (Sat)	9:30 am – 12:30 pm	Room 303
7	27 Feb (Sat)	9:30 am – 12:30 pm	Room 201
8	6 Mar (Sat)	9:30 am – 12:30 pm	Room 201 (TBC)
9	13 Mar (Sat)	9:30 am – 12:30 pm	Room 201 (TBC)
10	20 Mar (Sat)	9:30 am – 12:30 pm	Room 201 (TBC)
11	3 Apr (Sat)	9:30 am – 12:30 pm	Room 201 (TBC)
12	10 Apr (Sat)	9:30 am – 12:30 pm	Room 201 (TBC)
13	24 Apr (Sat)	9:00 am – 1:00 pm	Room 201 (TBC)

Suitable for

- S1 – S6 HKAGE student members in 2026/27 school year
- Class size: 24
- Priority will be given to students who have not previously participated in A3AER001C. Student members would be selected randomly by the computer system. The decision of HKAGE on the result of the selection should be final.

Medium of Instruction

English with English Handouts

Pre-requisite

No special prerequisites are needed, though prior knowledge of Visual Programming Language is preferred.

Certificate

E-Certificate will be awarded to gifted students who have:

- attended at least 10 sessions; and
- completed all the assignments with satisfactory performance

Enquiries 3940 0101 programme@hkage.org.hk