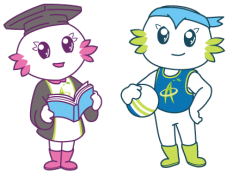
香 港 資 優 教 育 學 苑
The Hong Kong Academy for Gifted Education
香港特別行政區政府教育局資助
Subvented by the Education Bureau, the Government of the HKSAR



Learn about Gigi & Yoyo

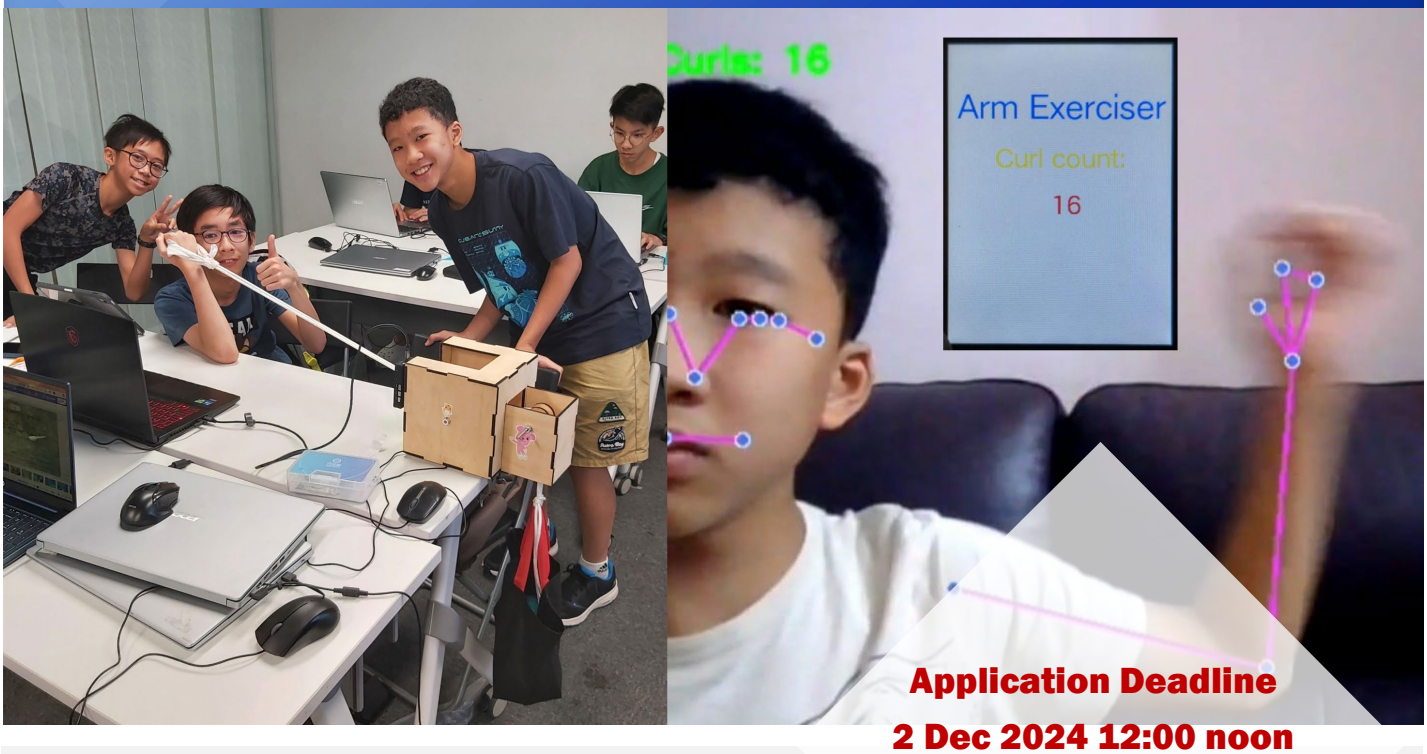
[**Gifted Programme**] E3IN0004C, E3IN0004C-2

(Token- required)

Innovation Course (Level III):

Applying Artificial Intelligence to Make Smart Living Products (Phase I)

Mr Chris LEUNG (Decatron Innovation Limited)



Application Deadline
2 Dec 2024 12:00 noon

Result Release
13 Dec 2024

Intended Learning Outcomes

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

1. apply design thinking principles and use mind mapping to explore end users' needs;
2. gain practical experience in CAD drawing, 3D printing, and laser cutting for product design;
3. build devices with microcontrollers and IoT sensors, focusing on hardware and software integration;
4. set up a Python environment for AI development and understand gesture and posture detection concepts;
5. apply creative problem-solving skills.

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

Gifted Programme Introduction

This programme series integrates Artificial Intelligence (AI) and Internet of Things (IoT) for smart living product innovation. Students will learn computer-aided design (CAD) drawing, 3D printing, laser cutting, electronic circuit design, and Python programming. The curriculum emphasises hands-on design challenges, fostering empathy, ideation, and creative problem-solving. Students will apply design thinking to invent smart living solutions, developing metacognitive awareness. Advanced IoT applications, including data visualisation and AI for gesture and pose detection, will also be explored. Through collaborative group projects, students will conceptualise, design, and prototype products, presenting innovative solutions.

Schedule

Admitted students only need to attend either *Class A* or *Class B* below.

Class A (E3IN0004C)

Session	Date	Time	Venue
A1	4 Jan	9:30 a.m. – 12:30 p.m.	Decatron Innovation Limited
A2	11 Jan		
A3	18 Jan		
A4	25 Jan		

Class B (E3IN0004C-2)

Session	Date	Time	Venue
B1	8 Feb	9:30 a.m. – 12:30 p.m.	Decatron Innovation Limited
B2	15 Feb		
B3	22 Feb		
B4	1 Mar		

Address: Decatron Innovation Limited, Unit 03, 19/F, Yen Sheng Centre, 64 Hoi Yuen Road, Kwun Tong, Kowloon. (MAP)

Remarks:

1. Interested student please apply at either Class A (E3IN0004C) or Class B (E3IN0004C-2) only. If you are also available for the other class, please indicate it in the last screening question (which may slightly increase your chance of getting an offer). We shall assign you to attend either Class A or Class B according to your availability, provided that you pass the screening.
2. The 25 best-performing students in Phase I will be promoted to join Phase II. Grades and selection results will be announced after both Class A and Class B have completed, tentatively around 13 – 21 Mar 2025.
3. Tentative schedule for Phase II is 6 sessions on: 5, 12, 26 Apr, 3, 10 & 17 May, 2025; at 9:30 a.m. – 12:30 p.m.

Enquiries 3940 0101 programme@hkage.org.hk

Suitable for

- S1 to S6 HKAGE student members in 2024/25 school year
- Class size: 25 for Class A, 25 for Class B, totally 50.

Pre-requisite

No special prerequisites are needed

Medium of Instruction

Cantonese with English Handouts

Certificate

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

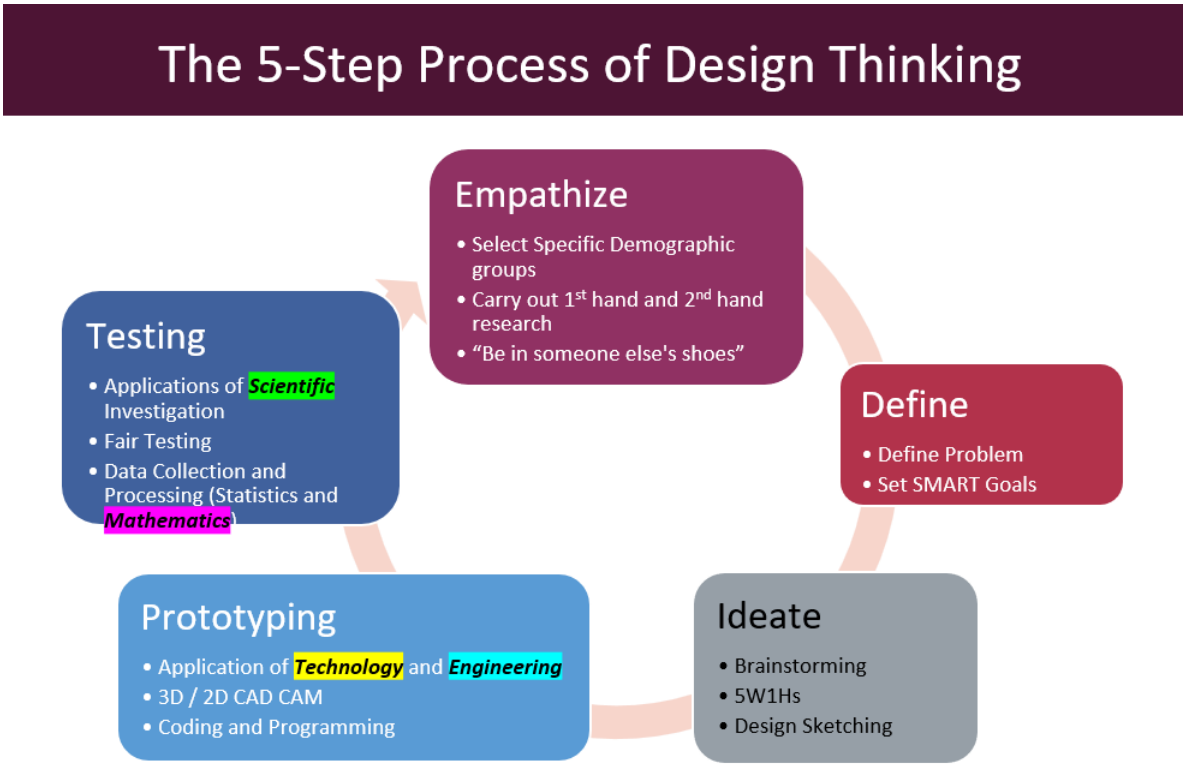
- attended at least 3 sessions; and
- completed all the assignments with satisfactory performance.

Screening

Please answer the screening questions in the online application form.

*The screening questions are designed to help the applicant understands the course level and the course content. The questions must be answered by the student applicant and it can only be attempted once. The answers cannot be changed once the application is submitted. Selection is based on students' performance in answering the questions. Only students who can demonstrate motivation and knowledge of artificial intelligence and product design in the screening questions can be enrolled in the programme.

Sample Notes



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Cause and Effect Diagram