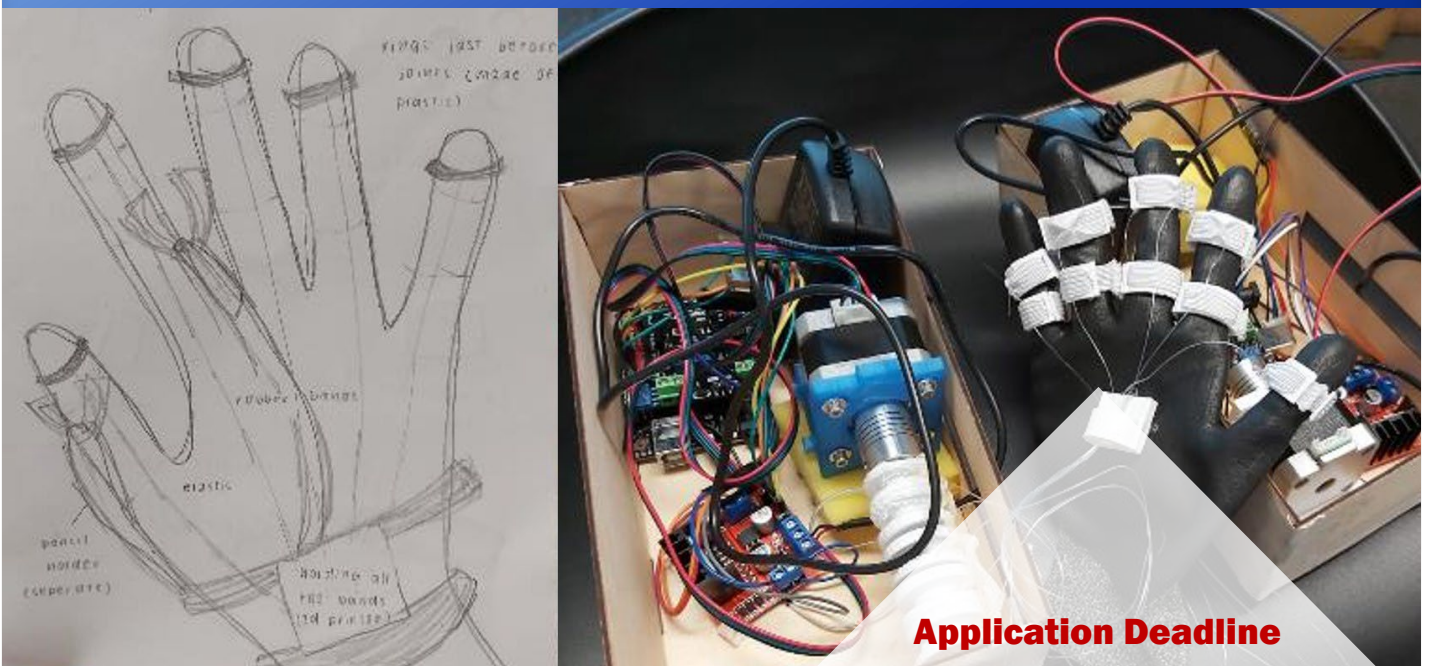




# Innovation Course (Level III): Creative Design Thinking and IoT Application – Making Innovative Rehabilitation Products

Mr Chris Leung (Decatron Innovation Limited)



**Application Deadline**  
**23 Jan 2023 12:00 noon**

## **Intended Learning Outcomes**

Upon completion of the programme, participants should be able to:

1. design and make their own innovative products for stroke patients and modify the products to fulfill patients' needs;
2. apply circuit design, IoT sensors, advanced programming skills and real-time database technology to design the products;
3. incorporate design thinking process in making the products;
4. develop collaboration skills via conducting the group design projects.

**Result Release**  
**3 Feb 2023**



## ◆ Introduction

This course is designed to enhance students' interest in the concept of Design Thinking, IoT (Internet of Things) and applying STEM theories to real-life practice by producing an innovative rehabilitation product for stroke patients. Students will engage in hands-on design challenges that focus on developing empathy, encouraging ideation, developing metacognitive awareness and fostering creative problem-solving. Throughout the course, students will acquire skills including CAD design drawing, and making a prototype by using paper/3D printing, electronic circuit design and computer programming (e.g. Python) skills. The group design mini project would develop students in creativity, collaboration and design talent.

## ◆ Schedule

Session	Date	Time	Venue
1	4 Mar	9:30 a.m. – 12:30 p.m.	Decatron Innovation Limited, Unit 03, 19/F, Yen Sheng Centre, 64 Hoi Yuen Road, Kwun Tong, Kowloon. <a href="#">(MAP)</a>
2	11 Mar		
3	18 Mar		
4	25 Mar		
5	1 Apr		
6	22 Apr		
7	19 Apr		
8	6 May		

## ◆ Target Participants

- S1 to S6 HKAGE student members only in 2022/23 school year
- Class size: 25

## ◆ Pre-requisite

No special prerequisites are needed

## ◆ Certificate

E-Certificate will be awarded to participants who have:

- attended at least 6 sessions; and
- completed all the assignments with satisfactory performance.

## ◆ Medium of Instruction

Cantonese with English Handouts

## ◆ Screening

Please answer the screening questions in the online application form.

\*The screening questions are designed to help the applicant understand 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 design thinking in the screening questions can be enrolled in the programme.



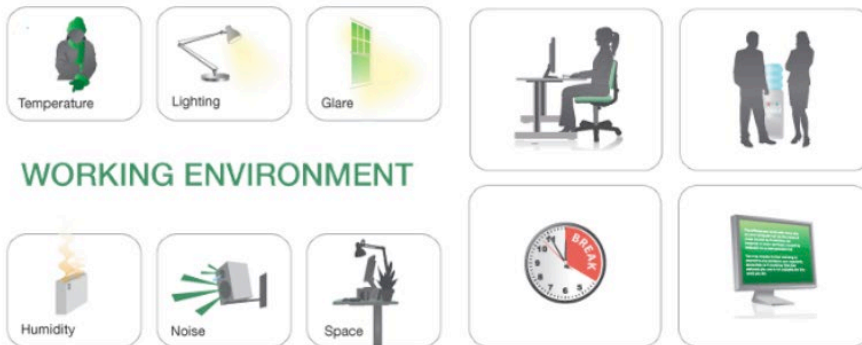
## ◆ Sample Notes

What does healthcare product include?



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Ergonomic Factors



Resource: <https://www.posturite.co.uk/help-advice/learning-resources/what-is-ergonomics>

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