

DIGITAL MAKING 2021

(A2STM001C)

Introduction

Are you interested in learning programming skills and solving problems?

Are you a maker and enjoy hands-on learning?

Do you have a passion for Mathematics and are you looking for enrichment activities?

If so, you can't miss this programme!

During the 5-session programme, you will participate in a **series of digital making workshops which aims to enhance your computational thinking, develop your problem-solving skills, and explore different approaches in mathematics learning.** In each session, you will be guided to solve some specifically designed tasks with your peers via block-based programming with an Arduino device. As a result, a meaningful hands-on product will be created by you! At the end of the programme, you will utilise your skills to design a game/solver/artefact of your choice and share it with your peers.



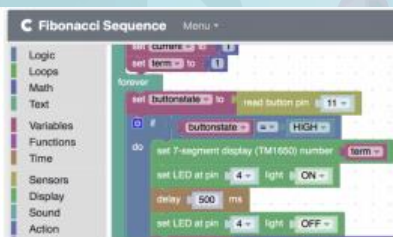
Digital Making 2021 is organized by Prof Oi-Lam Ng from the Chinese University of Hong Kong (CUHK), in collaboration with HKAGE

Post programme research involvement: For students admitted to this programme, you will be invited to become a research participant of a research project initiated by a team of researchers from the CUHK. Your participation will also contribute to advocating a novel approach in designing mathematics curricula. Hence, your participation and feedback are highly encouraged!

No prior experience with programming is needed. What you will need is some school mathematics knowledge, and a curious mind!








1. Arduino and Devices



2. Block-based Programming




3. Hands-on product

Programme Type	Course (Token required)
Facilitators/Instructors	CUHK Professionals and Team of Researchers, led by Prof. Ng Oi-Lam (Department of Curriculum Instruction) and Dr. Marco Ho (Department of Information Engineering)
Target Participants	 <ul style="list-style-type: none"> ➤ P5 to S3 HKAGE members ➤ Capacity: 30 <p><i>Priority will be given to applicants who will join the research</i></p>
Medium of Instruction	 Cantonese (supplemented with English, if necessary)
Certificate	 <p>Participants who have attended not less than 4 sessions and completed the student feedback form will be awarded with an e-certificate of Completion.</p> <p>Participants who have also fulfilled the performance requirements will be awarded an e-certificate with a remark of Merit or Distinction.</p> <p>The above e-certificate will be issued by the HKAGE and CUHK.</p> <p>Also, participants who join as a research participant and perform satisfactorily will be awarded a certificate of completion issued by CUHK.</p>
Intended Learning Outcomes	 <p>Upon completion of the programme, participants should be able to:</p> <ol style="list-style-type: none"> a. apply at least 2 computational concepts, such as sequences and iterations, Boolean logic, conditionals in a programming environment; b. express problems computationally; c. describe the process of solving 2-3 mathematical problems in a programming environment; d. apply computational perspectives about the role of programming in daily life and e. connect and collaborate with peers who are interested in programming.
Application Procedures	 <p>Please provide answers to the screening questions on the online form.</p>
Application Deadline	<p>28 Jan 2021 Thursday (12:00 n.n.)</p> <p style="text-align: center;"> Application Release Date Result 1 Feb 2021 </p>

Schedule



Session	Date	Time	Activity	Venue
1	6 Feb 2021 (Saturday)	10:00am – 12:00nn	Introduction	Zoom Meeting 
2	20 Feb 2021 (Saturday)		Digital Making Project 1	
3	27 Feb 2021 (Saturday)		Digital Making Project 2	
4	6 Mar 2021 (Saturday)		Digital Making Project 3	
5	13 Mar 2021 (Saturday)		Digital Making Finale and Sharing	
Back-up	20 Mar 2021 (Saturday)		Back-up	

The programme sessions may be cancelled or rescheduled and the delivery mode may change according to the development of coronavirus epidemic and EDB guidance.

If the Education Bureau announces that all whole-day schools classes will be cancelled due to inclement weather, the programme will be cancelled or rescheduled.

For updated arrangements of inclement weather and coronavirus epidemic, please pay close attention to email notification and announcement in HKAGE website.

Enquiries



For enquiries, please contact Ms Christie SO at 3940 0101 (after language selection, press 6) or email to ale@hkage.org.hk.

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