香 港 資 優 教 育 學 苑
The Hong Kong Academy for Gifted Education

Jumping Sumo Maze Course (TECS1131)

Introduction	Learn coding and robotics using iPad and wireless communication. Students can learn advanced computing concepts in an exciting and joyful way with technology leaders. Off-the-shelf toy robot Jumping Sumo is used throughout the course. With its agile movement capability and superb computer vision capability, the possibility is limitless. Students will learn advanced computer concepts such as: robot motion control, computer vision and artificial intelligence in a natural and task-oriented way without having to master complicated theories. Coding and Robotics are important ingredients of STEM education in advanced countries. Mastering of such knowledge is to master the future.
Programme Type / Level	Introductory Course in Computer Controlled Robots (Token-required)
Instructor(s)	Mr. LAU Kam Ming of Smart Kiddo Education Limited
Pre-requisites	Students should have: 1. basic understanding in mathematics and algebra
Target Participants	➢ S1 – S3 HKAGE student members ➢ Class size: 30
Medium of Instruction	English (Supplemented with Cantonese) with English handouts
Certificate	**Certificate** will be awarded to participants who have: ❖ Attended **at least 3 sessions** ❖ Completed all the assignments with **satisfactory performance**
Intended Learning Outcomes	Upon completion of the programme, participants should be able to: 1. conduct computer programming using Visual Programming Language such as : Google Blockly; 2. use tablet computers to command physical robot Jumping Sumo with mechanical movement;. 3. use tablet computers to analyse feedback from the Jumping Sumo camera vision;. 4. programme the Jumping Sumo to go through maze with image recognition, colour recognition, state machine and basic artificial intelligence.
Screening	Please answer the screening question in the online application form. *The screening question is designed to help the applicant understands the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the question. Only students who can demonstrate motivation and the basic knowledge of Computer Controlled Robots in the screening question can be enrolled in the programme.
Application Deadline	**13 Feb 2017**
Application Result Release Date	**17 Feb 2017**

Student members may withdraw from the programme on or before the deadline. Otherwise, the token will be deducted.

Schedule

Session	Date	Time	Venue (HKAGE)
1	4 Mar	2:00 p.m. – 5:00 p.m.	Rm 305
2	11 Mar	9:30 a.m. – 12:00 p.m.	
3	11 Mar	2:00 p.m. – 5:00 p.m.	
4	18 Mar	2:00 p.m. – 5:00 p.m.	

Enquiries

For enquiries, please contact us at 3940 0191 or 3940 0102.