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

Building Arduino Surveillance Cart (TECP1443)

Introduction

This is an integrated STEM learning experience. Students will learn to build a Surveillance Cart using Arduino-compatible WiFi board.
The robot cart is equipped with a camera at the front to observe the environment and is driven by two continuous servo motors.
This type of motor needs more advanced control than the typical DC motors.

Programme Type / Level

Computer Programming Course (Level 1)(Token-required)

Instructor(s)

Mr LAU Kam Ming of Smart Kiddo Education Limited

Pre-requisite

No special prerequisites are needed

Target Participants

- P4 – P6 HKAGE student members
- Class size: 30

Medium of Instruction

English with English handouts

Certificate

E-Certificate will be awarded to participants who have:

- Attended **at least 3 sessions; AND**
- Completed all the assignments with **satisfactory performance**

Intended Learning Outcomes

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

1. assemble mechanical parts of a robot cart;
2. control continuous servo motors in Arduino;
3. have a better understanding of the Internet-of-Things technology.

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 Computing in the screening question can be enrolled in the programme.

Application Deadline **6 May 2019 12:00 n.n**

Application Result Release Date **17 May 2019**

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

Schedule

Session	Date	Time	Venue (HKAGE)
1	12 Aug	9:00 a.m. – 12:00 noon 2:00 p.m. – 5:00 p.m.	Room 105
2			
3	14 Aug		
4			

Students may bring their own notebook computers with the "Arduino IDE" software installed (iOS or Android tablets are not accepted).

Enquiries

For enquiries, please contact us at 3940 0101 after language selection, press "1".