



E2ROB001C

(Token- required)

# Robotics Course (Level II): Mini Robocon 2022 Phase I Training

Mr Johnny Wan (Binary Creation Limited)



## Intended Learning Outcomes

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

1. describe the requirements of robot design;
2. analyse basic mechanical properties of a robot;
3. design and program a manually controlled robot using graphical programming tools;
4. collaborate and communicate more effectively via group design project.

**Application Deadline**  
**14 Feb 2022 12:00 noon**

**Result Release**  
**18 Feb 2022**



## ◆ Introduction

Students are going to build and write programs for robots in “Mini Robocon 2022” by using Makeblock Ultimate 2 kit. This kit includes robot-base construction, mechanical design choices, ball launcher design, wireless remote controller design and basics of automation. Students are also required to read rulebook and understand the mission requirements. Students will have hands-on experiences on designing, building robots through design process to instruct the robots to communicate with a wireless controller with programs.

## ◆ Schedule

Session	Date		Time	Venue
1	<del>14 Apr</del>	Postponed	9:00 a.m. – 12:00 noon	Hong Kong Science Park (Details to be confirmed)
2	<del>14 Apr</del>		1:00 p.m. – 4:00 p.m.	
3	<del>19 Apr</del>		9:00 a.m. – 12:00 noon	
4	<del>19 Apr</del>		1:00 p.m. – 4:00 p.m.	

### Remarks:

1. Phase I students must attend the selection test in Session 4 for selection to Phase II training.
2. Promotion to Phase II: The 15 best-performing students in Phase I selection test will be promoted to join Phase II training (around May - Jul 2022) and the “Mini Robocon 2022” competition (in Jul or Aug 2022 – date(s) to be confirmed by organiser) as HKAGE teams. You may visit the official website for more information: <https://sites.google.com/view/mini-robocon-2020/home>.
3. Tentative arrangement for Phase II training is 12 sessions on: 28 May, 4, 11 Jun, 2, 9 & 15 Jul, 2022; at 9:00 a.m. – 12:00 noon & 1:00 p.m. – 4:00 p.m.

## ◆ Target Participants

- S1 – S3 HKAGE student members only in 2021/22 school year
- Class size: 30

## ◆ Pre-requisite

- Students should be good at mathematics and analytical thinking.
- Experience in computer programming and robotics are preferred, but certainly not a must.

## ◆ 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 the knowledge of robotics in the screening questions can be enrolled in the programme.

## ◆ Certificate

E-Certificate will be awarded to participants who have:

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