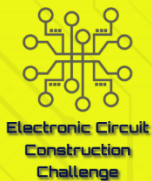


初級組  
Junior Division



# 電子線路挑戰賽 2024

## Electronic Circuit Construction Challenge 2024

### 報名表格 (Application Form)



香港科技大學  
THE HONG KONG  
UNIVERSITY OF SCIENCE  
AND TECHNOLOGY



Advancing Technology  
for Humanity



ELECTRONICS  
SOCIETY

IEEE Hong Kong ED/SSC Joint Chapter

### 報名流程 Application Process



### 參賽者資料 (Personal Information of Applicant)

姓名: \_\_\_\_\_ (中文) \_\_\_\_\_ (English) 性別: 男  女   
Name: \_\_\_\_\_ (English) Gender: M  F

出生日期: \_\_\_\_\_ 級別: \_\_\_\_\_ 學校: \_\_\_\_\_  
Date of Birth: \_\_\_\_\_ Grade: \_\_\_\_\_ School: \_\_\_\_\_

地址: \_\_\_\_\_  
Address: \_\_\_\_\_

電話: \_\_\_\_\_ 電郵地址: \_\_\_\_\_  
Contact Phone: \_\_\_\_\_ Email: \_\_\_\_\_

你是否參加 4 月 13 日 (星期六, 上午 9 時 45 分 至 下午 5 時正) 在科大舉辦的工作坊嗎? (自由參與) 是  否   
Will you be joining the workshop on April 13 (Sat, 9:45 am - 5:00 pm) at HKUST? (Optional) Yes  No

如果你通過學校申請, 請留下負責老師的聯絡資料

If you apply through your school, please write down the following contact information about your teacher-in-charge.

老師姓名 \_\_\_\_\_ 老師聯絡電話 \_\_\_\_\_  
Name of the teacher: \_\_\_\_\_ Teacher's contact number: \_\_\_\_\_

老師電郵地址 \_\_\_\_\_  
Teacher's email address: \_\_\_\_\_

## 選拔題 (Selection Questions)

選拔題有 6 條, 你的答案會決定參賽資格

There are 6 selection questions. Your qualification status will be determined by your answers to these questions.

從 Q1 至 Q4, 請勾選正確答案。

For Q1 to Q4, please tick the box with the correct answer.

### Q1

這個符號代表什麼?

What does this symbol represent?



- a) 電池 Battery
- b) 燈泡 Bulb
- c) 電線 Wire

### Q2

這個符號代表什麼?

What does this symbol represent?



- a) 電晶體 Transistor
- b) 發光二極管 Light-emitting diode
- c) 開關制 Switch

### Q3

其中哪一個元件是用於輸出?

Which of these is an output device?

- a) 開關制 Switch
- b) 熱敏電阻 Thermistor
- c) 發光二極管 Light-emitting diode

### Q4

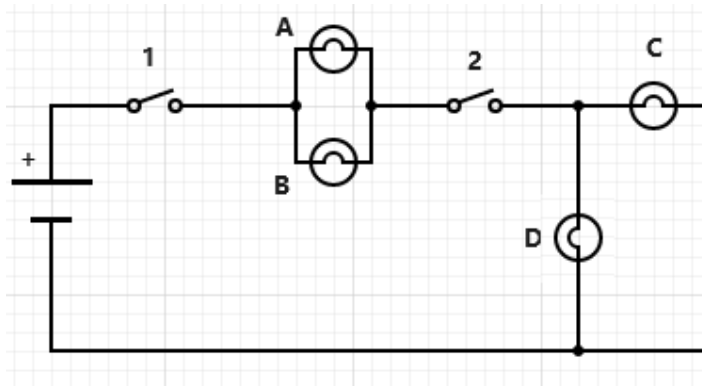
串聯一個  $2\ \Omega$  和一個  $3\ \Omega$  電阻, 總電阻是多少?

A  $2\ \Omega$  and a  $3\ \Omega$  resistor in series give what total resistance?

- a)  $6\ \Omega$
- b)  $5\ \Omega$
- c)  $1\ \Omega$

### Q5

請看下面的電路圖: Please look at the circuit diagram below:



參考上面的電路圖, 當滿足下列條件時, 哪個燈泡 (A, B, C, D) 會亮起? 所有正確答案

By referring to the circuit diagram above, which of the light bulbs (A, B, C, D) will be turned ON when the following conditions are met? Please tick all the boxes with the correct answer

條件 Condition	A	B	C	D
所有開關制閉合 All switches are closed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
燈泡 A 燒壞, 所有開關制閉合 Bulb A blows out with all switches closed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
燈泡 C 燒壞, 所有開關制閉合 Bulb C blows out with all switches closed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 選拔題 (Selection Questions)

Q6

請回答以下兩個問題之一：

您可以使用文字（100 到 150 字）和/或插圖來作答。

可使用中文或英文淺述。

Please answer one of the two questions below:

You may use text (100 to 150 words) and / or illustrations to explain your ideas.

Your writing can be in Chinese or English.

1)

如果你可以將AI(人工智能)融入電子產品來幫助人們，你會想發明什麼？

What kind of invention would you create, if you can integrate AI (Artificial Intelligence) into electronic products to help people?

2)

如果我們將AI(人工智能)融入電子產品，可會帶來哪些好處和壞處？

If we integrate AI (Artificial Intelligence) into electronic products, what benefits and drawbacks might it bring?

我的答案:

My answer:

## 家長同意書 (Parent's Consent)

家長/監護人姓名  
Name of Parent / Guardian: \_\_\_\_\_

與參加者關係:  
Relationship with Applicant: \_\_\_\_\_

緊急聯絡電話：  
Emergency Contact : \_\_\_\_\_

- 本人同意子女參加是次活動，並確認其健康狀況良好。  
I agree to let my child participate in the activity and confirm that he/she is in good health.
- 本人明白並同意在是次活動期間所拍攝的照片和視頻將用於 IEEE 及香港科技大學未來活動的推廣材料。  
We understand and agree that photos and video images taken during activities and programs will be used for promoting or organizing activities of IEEE and HKUST.

家長簽署：  
Parent's Signature : \_\_\_\_\_

日期：  
Date: \_\_\_\_\_

[End 完]