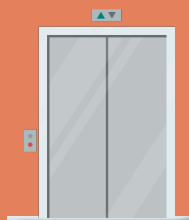


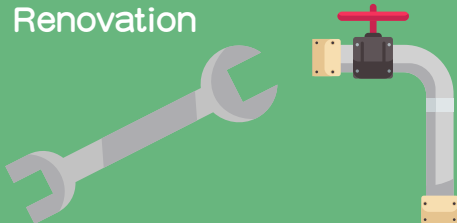
“Witty Bear” and “KnowBot”  
Remind Us on How to Use  
Lifts Safely



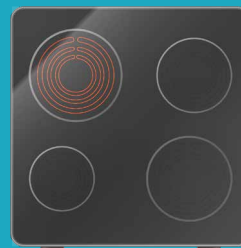
Innovative Product - Touchless Lift  
Buttons



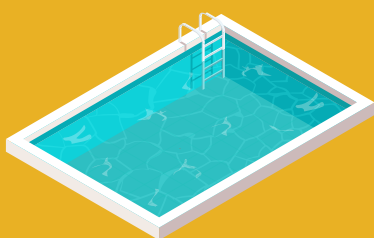
Gas Safety Tips for Building  
Maintenance and Home  
Renovation



Safety Tips for Induction Cookers



Protective Measures in Place  
Electricity Safety in Pools



Latest Developments of the Mandatory  
Energy Efficiency Labelling Scheme

ENERGY LABEL			
能源標籤			
more efficient 效益較高	Cooling 製冷	Heating 供暖	
1	Grade 1	Grade 1	
2			
3			
4			
5			
less efficient 效益較低			
Annual Energy Consumption (kWh)	403	38	
Cooling and Heating Capacity (kW)	3.52	3.56	
Refrigerant 製冷劑	R32		
Room Air Conditioner 品牌	ADC 品牌		
Model 型號	H1024		
Reference Number / Year 資料提供者	UR-010022 / 2020		
	機電工程署 EMSD		



## "Witty Bear" and "KnowBot" Remind Us on How to Use Lifts Safely

Recently you may have noticed two cute mascots in lifts. They are the intelligent "Witty Bear" and the knowledgeable "KnowBot", who are the mascots introduced by the EMSD in 2021 to promote knowledge on electrical and mechanical safety, energy conservation, environmental protection and innovative technology to the public in an interesting and lively way.

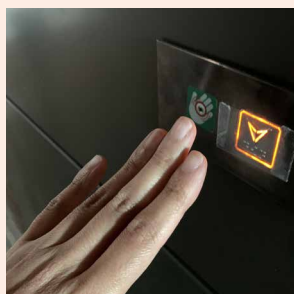
To further promote the safe use of lifts, the EMSD has designed stickers containing the mascots to promulgate messages on lift safety and distributed the stickers to responsible persons for lifts. The responsible persons can display the stickers in prominent positions to remind passengers of the points to note when using lifts, such as watching the step when entering and exiting, taking care of children, etc., in order to encourage the safe use of lifts.



## Innovative Product - Touchless Lift Buttons

Innovative technology brings about new functions for lifts/escalators, thereby improving their operational efficiency and service quality. This article will introduce one of the innovative products applied in lifts - touchless lift buttons.

Under the COVID-19 epidemic, avoidance of direct hand contact with public facilities can effectively reduce the risk of contracting and spreading the virus. In view of this, touchless lift buttons were introduced in the market to meet the public need. Generally speaking, a touchless lift button is equipped with a sensing device which detects the corresponding positions of a passenger's finger or hand and the lift button in order to send a control command to the lift. With such products, passengers can avoid direct contact with lift button panels, which can eliminate the risk of being infected by touching the buttons and enhance the effectiveness of combating the epidemic.



*Different designs of the touchless lift buttons*

The EMSD encourages responsible persons to use innovative products such as touchless lift buttons to enhance the service quality of lifts/escalators. To ensure that the innovative products are compatible with the lifts/escalators, the EMSD has consulted registered lift/escalator contractors and formulated relevant procedures for the introduction of such products. For details, please refer to Circular No. 6/2021.



[https://www.emsd.gov.hk/filemanager/en/content\\_806/6\\_2021.pdf](https://www.emsd.gov.hk/filemanager/en/content_806/6_2021.pdf)

## Gas Safety Tips for Building Maintenance and Home Renovation

Nearly 60% of the private residential buildings in Hong Kong are over 30 years old, more and more buildings are in need of inspection and repair to ensure public safety. In addition, the demand for home renovation is growing as the public aspire for better quality of life.

Everyone wishes to have their building repair and renovation works completed smoothly and on time, but failure to take proper steps and safety measures during the works often results in gas incidents due to damage to gas installations.

As regards gas safety, the following are common mistakes made when carrying out repair and renovation works:

- Mistake live gas pipes for abandoned pipes / damage gas pipes by accident (Figure 1);
- Cover the exhaust air vent of water heaters (Figure 2);
- Use gas pipes as supporting points for scaffolding (Figure 3); and
- Employ unqualified persons to carry out removal and alteration of gas installations.

Many gas incidents could have been avoided if owners and workers had fulfilled their respective responsibilities. In the course of works, contractors and workers are required to take all reasonable steps and measures to protect the gas installations (including gas pipes) from damage, including:

- Ascertain the locations of concealed and exposed gas installations as well as their pipe routing and gas supply condition;
- Confirm the pipe condition to avoid mistaking live gas pipes for abandoned pipes;
- Take appropriate protective measures to avoid damage to gas pipes; and
- Incorporate the above requirements into the contractors' contracts for maintenance or renovation works.

For more information on the relevant steps and measures, please scan the QR code below to access the leaflet "Avoidance of Damage to Gas Pipes in Housing Estates/Premises".



[https://www.emsd.gov.hk/filemanager/en/content\\_284/Avoidance\\_of\\_Damage\\_to\\_gas\\_pipes\\_in\\_housing\\_estates\\_premises.pdf](https://www.emsd.gov.hk/filemanager/en/content_284/Avoidance_of_Damage_to_gas_pipes_in_housing_estates_premises.pdf)

Please also note that a registered gas contractor shall be engaged to carry out gas installation works involved in building repair and renovation, and failure to do so constitutes an offence. A list of registered gas contractors can be accessed by scanning the QR code below.



[https://www.emsd.gov.hk/filemanager/tc/content\\_261/overall\\_RGC.pdf](https://www.emsd.gov.hk/filemanager/tc/content_261/overall_RGC.pdf)

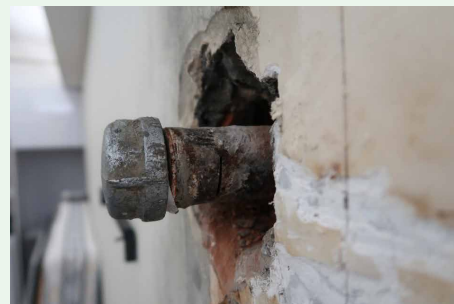


Figure 1



Figure 2

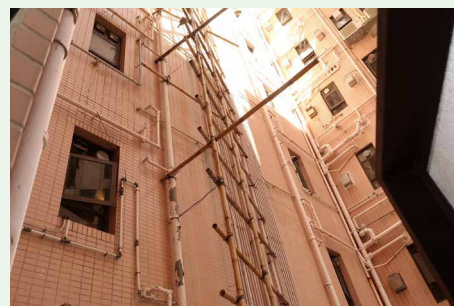


Figure 3

**Avoidance of Damage to Gas Pipes in Housing Estates/Premises**

**A Guide for Property Management Companies / Minor Works Contractors**

Before commencement of any minor works (including demolition or interior / exterior renovation) in housing estates/premises, property management companies and works contractors shall ensure that all reasonable steps and measures are taken to avoid damage to gas installations, and that the following precautions are noted:

**Avoid Damage to Concealed Gas Pipes**

- Ascertain the locations of exposed / concealed gas installations including gas pipes (on ceiling / wall / floor slab) within or in the vicinity of the works area as well as their gas supply condition.
- Check the labelling of live gas pipes to avoid mistaking them as abandoned pipes. Always assume the gas pipe to be alive although the gas supply has been terminated in the premises.
- Obtain layout plans of any and relevant information of concealed gas pipes from the registered gas supply companies or the management office.
- Use metal detectors to identify the locations of concealed gas pipes.
- Mark the locations of gas pipes clearly to ensure that the persons who carry out the works are aware of the positions of gas pipes and clearly understand what safety protective measures are required.

**In the course of works, take all reasonable measures to protect the gas pipes from damage, including:**

- Maintain adequate safety clearance from the gas pipes when carrying out chiselling works with hand tools.
- Use caution plates to protect the gas pipes from damage arising out of cutting works in the vicinity.
- Contact your registered gas supply company to isolate the gas supply temporarily, if necessary.
- Check the locations of the gas control valves for cutting off the gas supply in case of emergency.

**What should be done if a gas pipe is found damaged with gas leakage?**

- Stop the gas flow immediately by turning off the emergency control valve upstream of the gas meter.
- Extinguish all naked flames and open all windows and doors wide for the leaked gas to dissipate.
- Don't use telephones or operate any electrical switches.
- Leave the premises at once and notify your neighbours to evacuate if the gas leakage is serious.
- Call 999 for help and call the 24-hour emergency hotlines of the registered gas supply companies concerned.

**Be careful! Avoid damage to gas pipes**

The Hong Kong and China Gas Company Limited	2880 6999
ExxonMobil Hong Kong Limited	2435 4511
PMG SGA Limited	2435 4511
CHG Energy Limited	2322 2000
Shell Hong Kong Limited	2322 2000
Sinopac (Hong Kong) Limited	2433 2111

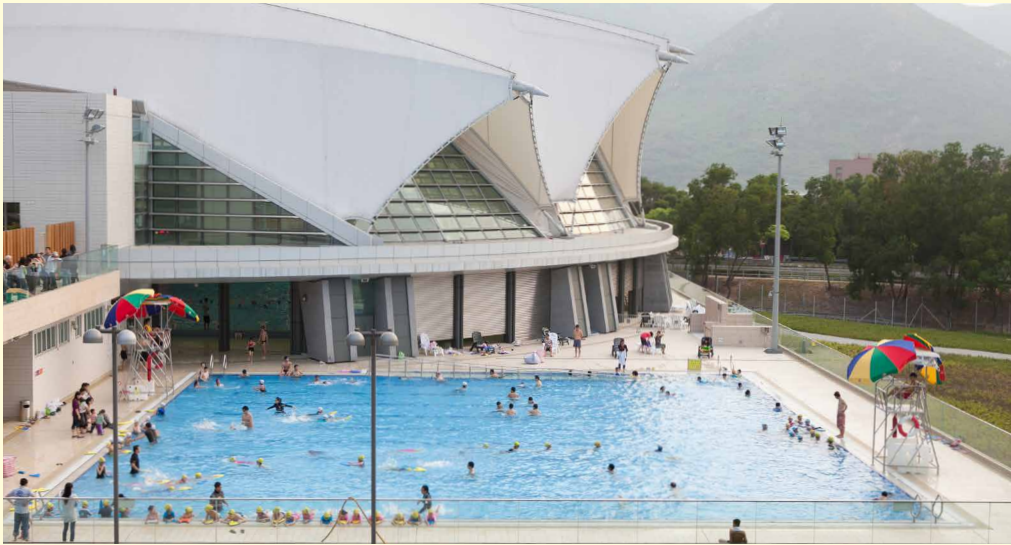
Registered gas contractors shall be engaged to carry out all the gas installation works. A list of registered gas contractors can be accessed by scanning the QR code or via the website [http://www.emsd.gov.hk/RegisteredGasContractors\\_2019new.pdf](http://www.emsd.gov.hk/RegisteredGasContractors_2019new.pdf)

Enquiry: 1823  
Website: [www.emsd.gov.hk](http://www.emsd.gov.hk)

Gas Authority EMSD



## Protective Measures in Place Electricity Safety in Pools



Many people know that they should not touch any electrical appliances, sockets or switches with wet hands, but have you ever wondered how electrical installations in a swimming pool or a fountain can meet the electricity safety requirements? To ensure the safety of electrical installations in swimming pools or fountains, Code 26M of the Code of Practice for the Electricity (Wiring) Regulations (hereinafter referred to as the "Code of Practice") sets out some special requirements for electrical installations in the above places. Registered electrical contractors and registered electrical workers are required to design, install and test the electrical installations concerned in accordance with the safety requirements of the Code of Practice, and issue work completion certificate upon completion of testing.

If an owner of electrical installations is unable to determine whether his electrical installations are in compliance with the safety requirements of the Code of Practice, he should engage a registered electrical contractor to conduct inspection and testing for the electrical installations as soon as possible to prevent accidents. At the same time, in accordance with Regulation 20 of the Electricity (Wiring) Regulations, if the approved loading of the fixed electrical installations in a building exceeds 100A, or if the fixed electrical installations are located in a hotel or school, periodic inspection, testing and certification should be carried out at least once every 5 years (i.e. 5-year periodic inspection) for the fixed electrical installations. Most of the electrical installations for swimming pools and/or fountains are electrical installations covered by the 5-year periodic inspection requirement. Therefore, the owners of the installations are required to engage registered electrical contractors to carry out the 5-year periodic inspection for their fixed electrical installations, including the electrical installations for swimming pools and/or fountains. Regarding how inspection and testing of the electrical installations for swimming pools and fountains should be carried out to meet the requirements stipulated in the Code of Practice, the EMSD has consulted the trade and added a new checklist for inspection items. If electrical installations in swimming pools and/or fountains are included in periodic inspection, when submitting an application for endorsement of the periodic test certificate, a checklist for relevant inspection items must be checked and attached. The checklist can be downloaded from the EMSD website: <https://www.emsd.gov.hk/en/home/index.html> (Electrical Safety > Publications > Guidance Notes/Guidelines > Electrical Installations > Additional Checklist for Inspection and Testing of Electrical Installation of Swimming Pool and Fountain)



[https://www.emsd.gov.hk/filemanager/en/content\\_444/Adtnl\\_Chcklst\\_Inspctn\\_Tstg\\_Elctrcl\\_Instltn\\_Swmng\\_Pl\\_Fntn.pdf](https://www.emsd.gov.hk/filemanager/en/content_444/Adtnl_Chcklst_Inspctn_Tstg_Elctrcl_Instltn_Swmng_Pl_Fntn.pdf)



## Safety Tips for Induction Cookers

In recent years, flameless cooking becomes more popular at home. More and more cooking enthusiasts use induction cookers for cooking. Regarding the product safety of induction cookers, suppliers are required to obtain a "Certificate of Safety Compliance" for induction cookers in accordance with the Electrical Products (Safety) Regulations to ensure that the induction cookers comply with relevant international safety standards or other equivalent safety standards. Here are the tips for use of induction cookers:

- 1** Ensure good ventilation at surrounding area of an induction cooker when it is in use.  

- 2** Should use a cookware with a flat bottom or curved bottom matched with the surface of an induction cooker.  

- 3** Do not place metallic objects such as knives, forks, spoons and lids on an induction cooker.  

- 4** Do not touch the surface of an induction cooker immediately after cooking.  

- 5** Turn off an induction cooker after use.  

- 6** Turn off an induction cooker immediately if its surface cracks or any other abnormal condition occurs.  

- 7** Follow the instructions of user manual for use and maintenance of an induction cooker, and arrange for regular checks by an experienced technician.  


For enquiries on the safety of electrical products, please call 1823 or email to [info@emsd.gov.hk](mailto:info@emsd.gov.hk)

To understand more about electrical products safety, please visit the Electrical Products Safety Corner:



## Latest Developments of the Mandatory Energy Efficiency Labelling Scheme

The Government has implemented the Mandatory Energy Efficiency Labelling Scheme ("MEELS"), covering eight types of electrical products, namely air conditioners, refrigerating appliances, compact fluorescent lamps (CFLs), washing machines, dehumidifiers, televisions, storage type electric water heaters and induction cookers since 2009. The electrical appliances covered by the MEELS account for about 50% of the total residential energy consumption. The MEELS are concise and easy to understand, enabling citizens to integrate their awareness of energy conservation into their consumption behaviours. To keep pace with the times, we continue to upgrade the standards of the MEELS and extend its coverage to more types of electrical products.

### Second Upgrading of Energy Efficiency Grading Standards

The second upgrading of the energy efficiency grading standards has been fully implemented on 31 December 2021. Single package type room air conditioners (window type), dehumidifiers and CFLs supplied in the market must bear energy labels with the new energy efficiency grading standard (new grading standards). A prefix "U2" is added to the reference number on the new energy labels.

### Fourth Phase of MEELS

The Government also proposes to extend the coverage to include three other types of products, namely light-emitting diode (LED) lamps, gas cookers and gas instantaneous water heaters under the fourth phase of MEELS. To assist the trade and the public to gradually adapt to the expanded coverage, the Electrical and Mechanical Services Department revamped the Voluntary Energy Efficiency Labelling Scheme (VEELS) in November 2021 to encourage the trade to adopt the proposed test standards for testing, namely GB 30720:2014 for gas cookers and GB 20665:2015 for gas instantaneous water heaters. Stakeholders may learn about the revamped VEELS at an early stage, in order to make the necessary arrangement for a smooth transition of their gas appliances from the VEELS to MEELS.

For details on the MEELS, please visit the following webpage:



<https://www.emsd.gov.hk/energylabel/>

ENERGY LABEL		
能源標籤		
more efficient 效益較高	Cooling 製冷	Heating 供暖
1	Grade 1 級	Grade 1 級
2		
3		
4		
5		
less efficient 效益較低		
Annual Energy Consumption (kWh) 每年耗電量(千瓦小時) Based on 100% indoor operation (Cooling or 240-hour operation (Heating)) 以室內使用 100% 時間計算 (冷卻或基於 240 小時計算 (供暖))	420	50
Cooling and Heating Capacity (kW) 製冷及供暖量(千瓦)	2.54	3.32
Refrigerant 製冷劑	R410A	
Room Air Conditioner Brand	ABC 某品牌	
Model Reference Number / Year Information Provider	HK1234 U1-C180123 / 2018 XYZ 某某某	
機電工程署 EMSD		

Energy Label before implementation of the new grading standard

Under the new grading standard, the new energy efficiency grading of the current models maybe different from their original grading.

Under the new grading standard, a prefix "U2-" is added as recognition of new reference number.  
e.g. Reference number: U1-C180123  
New reference number: U2-C180123

ENERGY LABEL		
能 源 標 籤		
more efficient 效益較高	Cooling 製冷	Heating 供暖
1		
2		
3		
4	Grade 4 級	Grade 4 級
5		
less efficient 效益較低		
Annual Energy Consumption (kWh) 每年耗電量 (千瓦小時) Based on 100% indoor operation (Cooling) or 240-hour operation (Heating) 以室內使用 100% 時間計算 (冷卻) 或 240 小時計算 (供暖)	420	50
Cooling and Heating Capacity (kW) 製冷及供暖量 (千瓦)	2.54	3.32
Refrigerant 製冷劑	R410A	
Room Air Conditioner Brand:	ABC	
Model	HK1234	
Reference Number / Year Information Provider	U2-C180123 / 2020 XYZ 某某公司	
機電工程署 EMSD		

Energy Label of new energy efficiency grading under the same model



## E &amp; M Safety Quiz

Please fill in the reply slip below with the most appropriate answer for each question and send it by post or by fax to the Editor, E&M Safety Newsletter (contact information is shown at the bottom of this page). The first 500<sup>1</sup> of the quiz participants answering all questions correctly will receive a souvenir (on a first-come-first-served basis).

## Q&amp;A

**Q1: Which of the following is not considered as safe use of lifts?**

- A. If any abnormality is found in the lift, notify the responsible persons for the lift immediately
- B. Watch the step when entering and exiting
- C. Stay as close to the lift door as possible
- D. Take care of accompanied children

**Q2: Which of the following is wrong about the function of the touchless lift buttons?**

- A. Touchless lift buttons can detect the corresponding position between a passenger's finger or hand and the lift button
- B. Passengers can avoid direct contact with lift button panels with the use of touchless lift buttons
- C. The risk of infection and virus transmission can be reduced by the use of touchless lift buttons
- D. Touchless lift buttons can eliminate germs and viruses directly

**Q3: Which type of contractor should an owner employ if he wants to carry out gas installation works in a residential unit?**

- A. Registered minor works contractors
- B. Registered plumbing contractors
- C. Registered gas contractors
- D. Registered electrical contractors

**Q4: In which premises are the electrical installations for swimming pools and/or fountains subject to a 5-year periodic inspection? (E&M Safety Newsletter)**

- A. In a hotel
- B. In a school
- C. In a building where the fixed electrical installations have an approved loading exceeding 100A
- D. All of the above

**Q5: Which of the following is/are point(s) to note for use of an induction cooker?**

- A. Should use a cookware with a flat bottom or curved bottom matched with the surface of an induction cooker
- B. Ensure good ventilation at surrounding area of an induction cooker when it is in use
- C. Turn off an induction cooker immediately if its surface cracks or any other abnormal condition occurs
- D. All of the above

**Q6: Under the new energy efficiency grading standards, what prefix will be added before the reference numbers of the energy labels of the single package type room air conditioners (window type) for identification?**

- A. NEW
- B. U2
- C. GU
- D. MEELS

REPLY SLIP<sup>2</sup>

Name:		Tel:			
Hong Kong Address:					
Answers:					
Q1	Q2	Q3	Q4	Q5	Q6

1 Only the first 500 of the quiz participants sending in the Reply Slip with all answers correct will be notified.

2 The personal data provided in the Reply Slip will only be used for the E & M Safety Quiz purpose. It will be kept confidential and will not be disclosed to any third party. You have the right to request in writing to check whether EMSD is keeping your personal data, to access or correct it, and to enquire about our policy and procedures in the use of such data as well as the types of personal data we are keeping. The above terms do not affect your rights as set out in the Personal Data (Privacy) Ordinance.

last answer : 1.C 2.D 3.C 4.B

## Feedback

Both the English and Chinese versions of this *E&M Safety Newsletter* are available on our web page at [www.emsd.gov.hk](http://www.emsd.gov.hk). Your enquiries and comments are most welcome. Please write to:

The Editor, E&M Safety Newsletter  
Electrical and Mechanical Services Department  
3 Kai Shing Street, Kowloon

歡迎讀者就版面或內容提出寶貴意見及建議，使我們能作出改善，務求為大家提供更多有用和有趣的資料。如欲提出意見或查詢，請與我們聯絡。《機電與我》中文及英文版均可於我們的網頁 ([www.emsd.gov.hk](http://www.emsd.gov.hk)) 內瀏覽。

機電工程署《機電與我》編輯  
九龍啟成街3號  
電話 Tel : 1823 (電話中心 Call Centre)  
傳真 Fax : 2504 5970  
電郵 E-mail : [info@emsd.gov.hk](mailto:info@emsd.gov.hk)

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EMSD



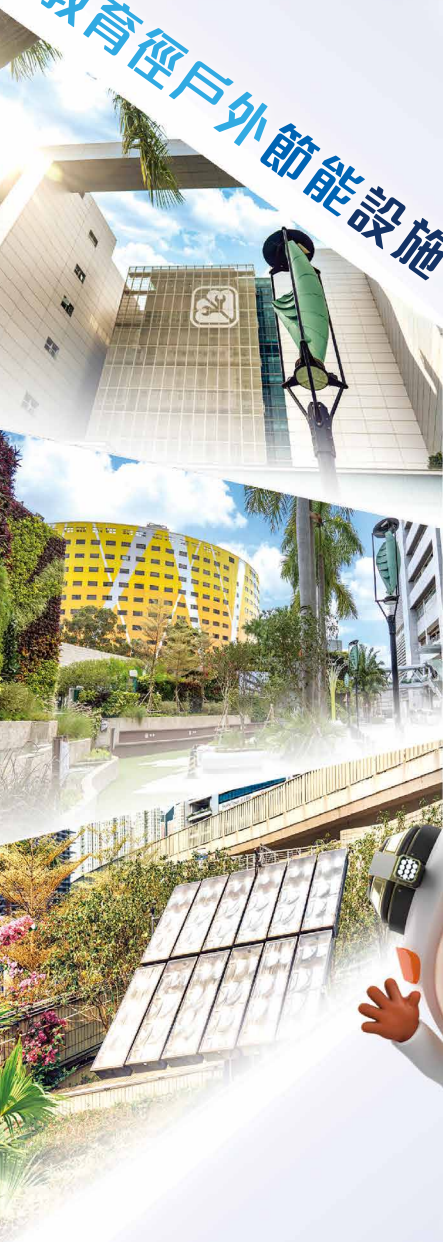


# 機電夢飛翔

## 展覽館及教育徑



教育徑戶外節能設施



展覽館內精彩展品



引領未來  
機電夢想啟航

EMSD  
GALLERY



歡迎

公眾參觀

星期一至五：  
上午9:30至下午4:30

公眾假期除外

教育徑網址：



機電工程署  
EMSD

