

紫外線

測量及應用設計比賽

Ultraviolet Radiation

Measurement & Application Design Competition

<http://www.cs.hku.hk/~uv/>



Competition Briefing 比賽簡介

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Faculty of Engineering
THE UNIVERSITY OF HONG KONG



香港氣象學會
Hong Kong Meteorological Society



香港天文台
HONG KONG OBSERVATORY



facebook.com/uvCompetition

Organizer and Supporting Organization

主辦單位及支持機構



- Faculty of Engineering, The University of Hong Kong
香港大學工程學院
<http://engg.hku.hk>
- Hong Kong Observatory
香港天文台
<http://www.hko.gov.hk>
- Hong Kong Meteorological Society
香港氣象學會
<http://www.meteorology.org.hk>
- Supported by Community Weather Information Network (CoWIN)
社區天氣資訊網絡
<http://weather.ap.polyu.edu.hk>
- Funding Supported by HKU Knowledge Exchange Fund
香港大學知識交流基金資助
<http://www.ke.hku.hk>

Objectives 目的



- Strengthening students' ability to integrate and apply knowledge and skills in engineering and meteorology
加強學生綜合和應用工程及氣象學的知識
- Nurturing students' creativity, teamwork and problem solving skills, and sparking their interest in engineering
培養學生的創造力、協作和解難能力，引發他們對工程及學習的興趣
- Increasing public awareness and understanding of UV radiation and its effects on health, and promoting correct attitudes towards UV protection
加強大眾對紫外線輻射的關注，更了解紫外線對人類健康的影響及防禦的正確態度

Categories 參賽組別



- Primary school 小學組
- Secondary school 中學組

Requirements 作品要求 R-01



- R-01 There is no restriction on the choices of materials for the device. The cost for the design and fabrication of the device, excluding desktop/notebook computers, tablets or mobile phone (for data archival and analysis, if applicable), should be **less than HKD 1500**. There will be **no subsidy** from organizers for implementing the device. 製造裝置的材料並沒有限制，所需費用應**少於港幣1500元**（電腦、平板電腦、手提電話等設備等除外）。主辦單位並**不會給予金錢上的補助**。

Requirements 作品要求 R-02



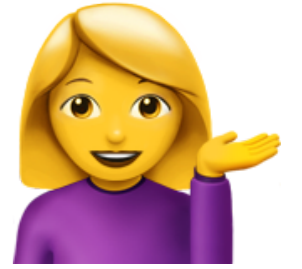
- R-02 The report should be concise, preferably with a length of **no more than 10 pages** (cover page excluded, diagrams included) and in **PDF** format.
文字報告宜言簡意賅，**不可多於十頁**（包括圖表,不包括封面頁）。隊伍需要提交**PDF格式**的報告。

Requirements 作品要求 R-03 R-04



- R-03 Digital photos of the UV radiation measurement device and/or application should be delivered (in zip format), together with the report, before the deadline of submission.
提交報告時亦需提交參賽作品之照片，請將照片儲存在 zip 檔案提交。
- R-04 Submission of report and photos should be sent to the specified email address on or before the submission deadline, otherwise it will not be entertained.
文字報告及相片 zip 檔需於限期前電郵到指定電郵地址。

Requirements 作品要求 R-05



- R-05 Each group is required to attend the project exhibition. Judging will be held during the exhibition. In the **whole period of the exhibition, at least one** team member (excluding teacher advisor) must be present. Team members are expected to answer questions raised by the judges and visitors.

參賽隊伍須出席作品展覽。展覽當天將進行評審，**展覽期間**參賽隊伍須派**至少一位**隊員（不包括督導老師）介紹作品，並回答評判及參觀人士的提問。

Requirements 作品要求 R-06 R-07 R-08



- R-06 The UV radiation measurement device should be capable of **measuring** UV radiation and report automatically or when checked manually.
紫外線**測量**裝置須能自動或經人手測量紫外線。
- R-07 The device should give UV radiation measurement readings to demonstrate its capability and effectiveness.
裝置須報告紫外線讀數以證明其能力及效用。
- R-08 The device should make use of UV and turns it into an **application**.
作品須**應用**紫外線。

Judging Criteria 評審準則

- J-01 **Research 報告內容**

Content of report, data collection and testing methodologies.
報告內容、數據搜集及測試方法。

- J-02 **Innovation 創意**

How innovative ideas have been applied in the design of UV measurement or using UV radiation in an application.
紫外線測量方法的創意及如何創意地應用紫外線。

- J-03 **Effectiveness 效能**

How effective the UV measurement device is.
紫外線測量裝置能否有效地運作。

- J-04 **Practicability 實用性**

How UV radiation is applied in the device and how practical it is.
裝置的實用性。

- J-05 **Appearance 外觀**

Does the instrument look sleek, neat and tidy?
紫外線測量裝置的外觀。

- J-06 **Presentation 介紹技巧**

Performance in the project exhibition.
參賽隊伍的介紹技巧。

Awards 獎項



- Champion 冠軍
- First runner-up 亞軍
- Second runner-up 季軍
- The Most Innovative UV Radiation Measurement Device Award 最佳創意獎
- The Most Attractive UV Radiation Measurement Device Award 最優外觀獎
- The Most Effective UV Radiation Measurement Device Award 最佳效能獎
- The Most Practical UV Radiation Application Award 最佳應用獎
- The Best Presentation Award 最佳演繹獎
- My Favourite UV Radiation Measurement Device Award
我最喜愛的紫外線測量器
- My Favourite UV Radiation Application Award
我最喜愛的紫外線應用獎



Certificate of Participation 參與證書

- Certificate of Participation will be presented to each member of the team if the team has:
 - submitted the report before the deadline; and
 - attended the exhibition (at least one member of the team) with the designed device.
- 符合以下要求的隊伍，其隊員皆可獲頒參與證書一張：
 - 於限期前提交作品報告及
 - 出席作品展覽並介紹作品。

Certificate of Attendance 出席證書



- Certificate of Attendance will be presented to participants if:
 - his/her team is eligible for receiving the “Certificate of Participation”; and
 - attended the corresponding event.
- 符合以下要求的參加者可獲頒該活動的出席證書：
 - 符合獲頒「參與證書」的要求及
 - 曾出席該活動。

Outstanding text report(s) 優秀文字報告



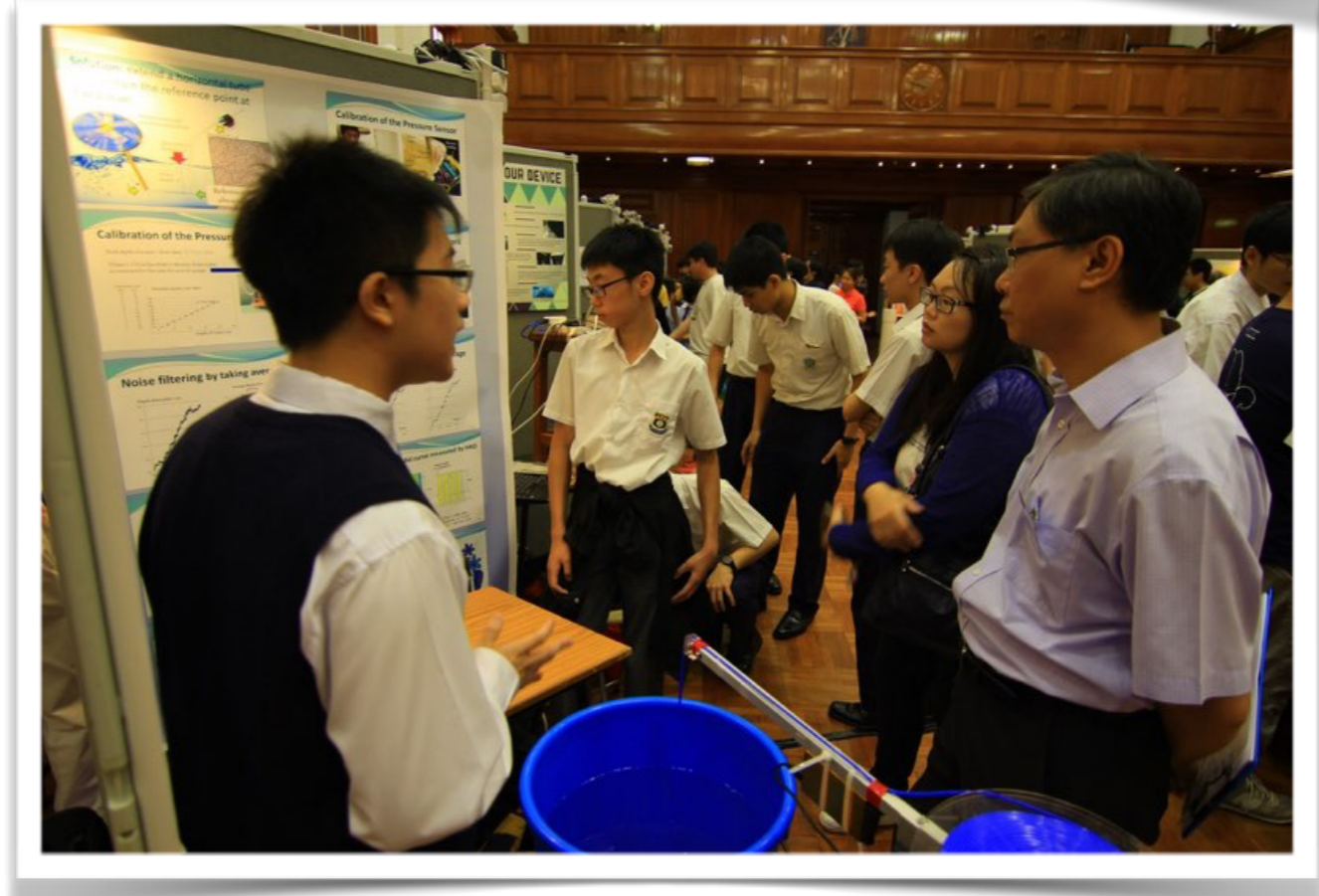
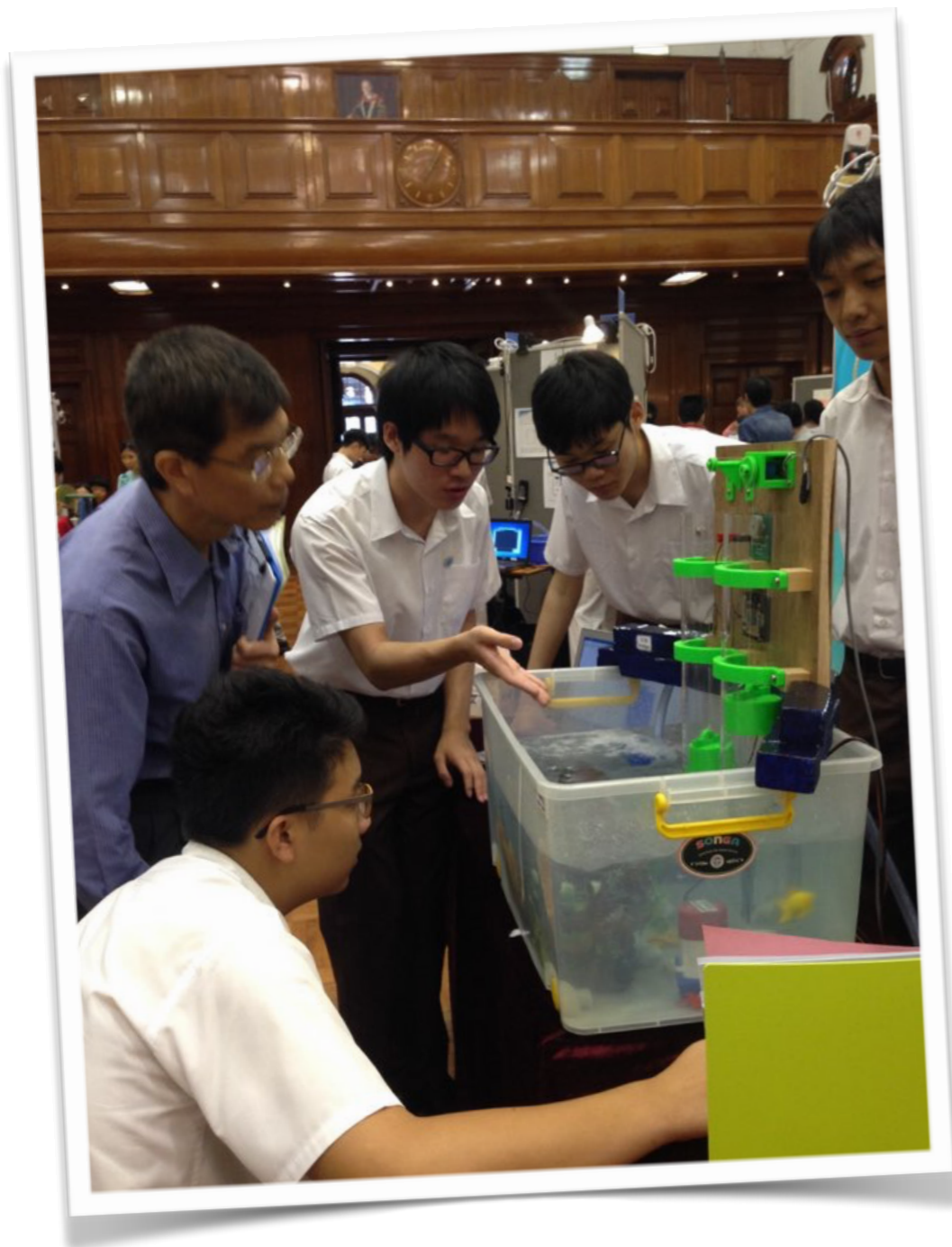
- Selected outstanding text report(s) could also become the entries of the competition of the **Outstanding Educational Projects (E-Prize)** under the **Hong Kong Meteorological Society Heywood Young Scientist Award Scheme**.
被評為優秀的文字報告亦可入圍角逐香港氣象學會
希活年青科學家獎計劃之傑出教育項目獎 (E-獎)。

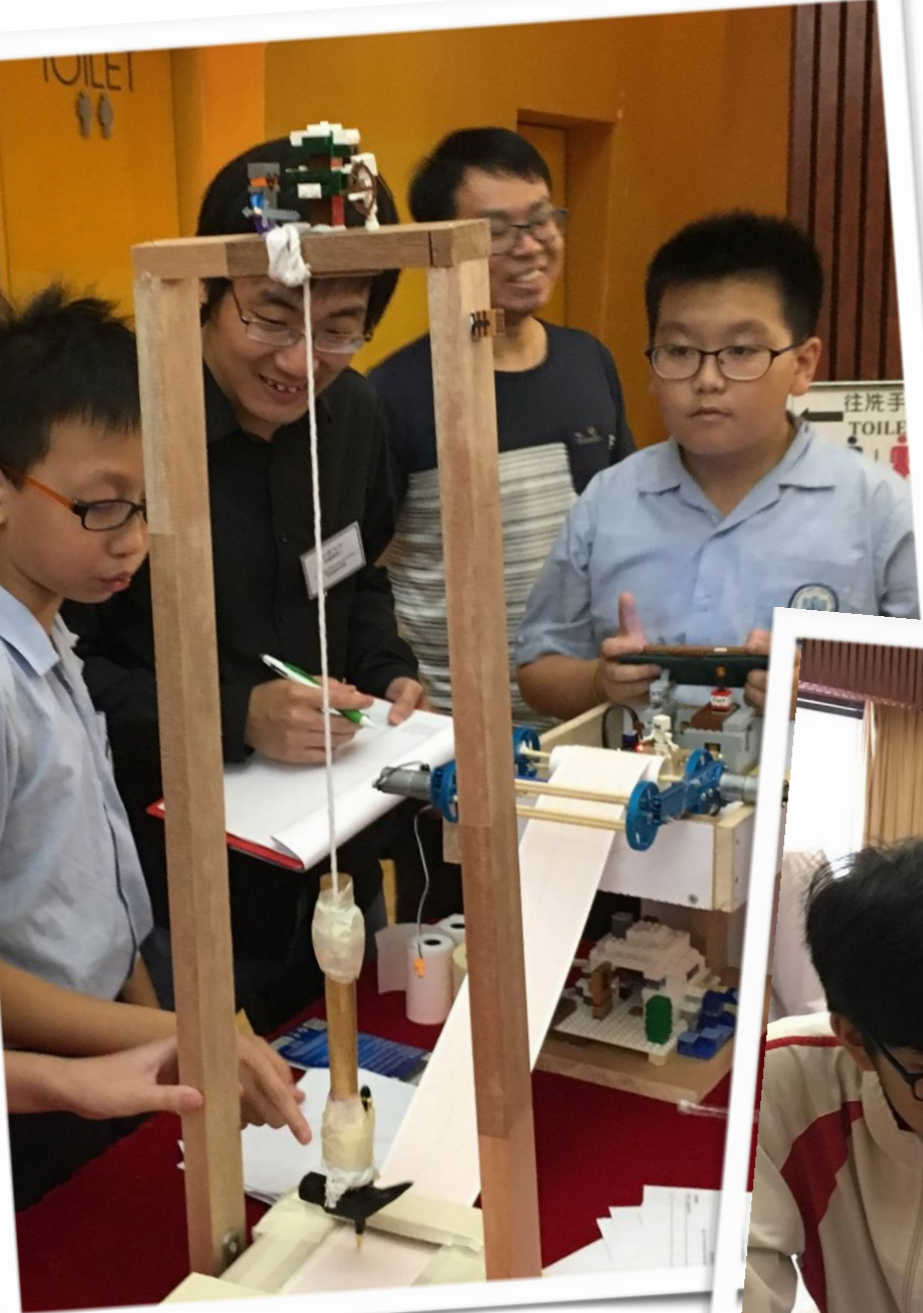
Project Exhibition, Judging and Award Presentation

作品展覽、評審及頒獎典禮



- 2018-04-28[Sat] / 2018-05-05[Sat] (Tentative 暫定)
09:30-17:30
- All participating teams are required to attend the Project Exhibition.
參賽隊伍需出席作品展覽。
- Judging will be done in the morning. The results will be announced in the afternoon, and then awards will be presented.
評審將於上午進行，比賽結果將於下午作品展覽完結後公布，並頒發獎項。
- Open to the public. Parents, teachers and students are welcome.
作品展覽將開放給公眾參觀，歡迎家長、老師及同學出席。
- All the visitors can vote for the “My Favourite UV Radiation Measurement Device” and “My Favourite UV Radiation Application ” Award winner.
入場人士將投票選出「我最喜愛的紫外線測量器」及「我最喜愛的紫外線應用獎」的得獎隊伍。
- At least one team member of the group must attend the exhibition.
展覽期間參賽隊伍需派至少一位隊員介紹作品。





Eligibility to join the Project Exhibition

出席作品展覽資格



- All participating teams are required to submit “**Intention to submit form**” on or before **2018-04-04[Wed]**:
參賽隊伍需於 **2018-04-04[Wed]** 或之前提交「**作品提交意向表格**」：
 - Estimated size of the final deliverable (length × width × height) cm
作品的估計尺寸 (長 × 闊 × 高) 厘米
 - A photo of the UV measurement device / application (can be incomplete)
一張作品相片 (可以是未完成的)
- Method of submission 提交方法：
Email 電郵：uv@cs.hku.hk
- The organizer will arrange the exhibition according to the submitted information. The team will **not be eligible** to join the exhibition if the team have not submitted the required information before the deadline.
主辦單位會根據上述資料作出展覽安排，如未能於限期前提交資料則**不能獲得作品展覽資格**。



Submission of report 提交作品文字報告

- Report 文字報告 (PDF format 格式)
- Photos of the submission in zip format
作品照片 (儲存於 zip 檔案)
- Deliverable submission form 提交作品表格
- Submission of report Deadline 提交作品文字報告限期：
2018-04-23[Mon] 17:00
- Method of submission 提交方法：
Email 電郵：uv@cs.hku.hk

Submission

提交作品



- All participating teams are required submit the UV radiation measurement device with application on the date of Project Exhibition.
參賽隊伍需於作品展覽當天提交作品。
- 2018-04-28[Sat] / 2018-05-05[Sat] (Tentative 暫定)
09:30-17:30



Upcoming events 活動預告

- **2017-11-25[Sat]**
Session 1: 14:15-15:45
Session 2: 16:00-17:30 (If Session 1 is full 如第一場滿座)
Talk on "DIY Ultraviolet Radiation Measurement Device"
「自製紫外線測量器」講座
- Date of registration 報名日期：
2017-11-13[Mon] - 2017-11-15[Wed]
- Please follow the competition Facebook page for the link to registration website.
請留意比賽 Facebook 專頁公佈報名網址連結。



Upcoming events 活動預告

- **2017-12-09[Sat]**

Session 1: 14:15-15:45

Session 2: 16:00-17:30 (If Session 1 is full 如第一場滿座)

Talk on "Data Analysis and Application"

「數據分析及應用」講座

- Date of registration 報名日期：

2017-11-27[Mon] - 2017-11-29[Wed]

- Please follow the competition Facebook page for the link to registration website.

請留意比賽 Facebook 專頁公佈報名網址連結。

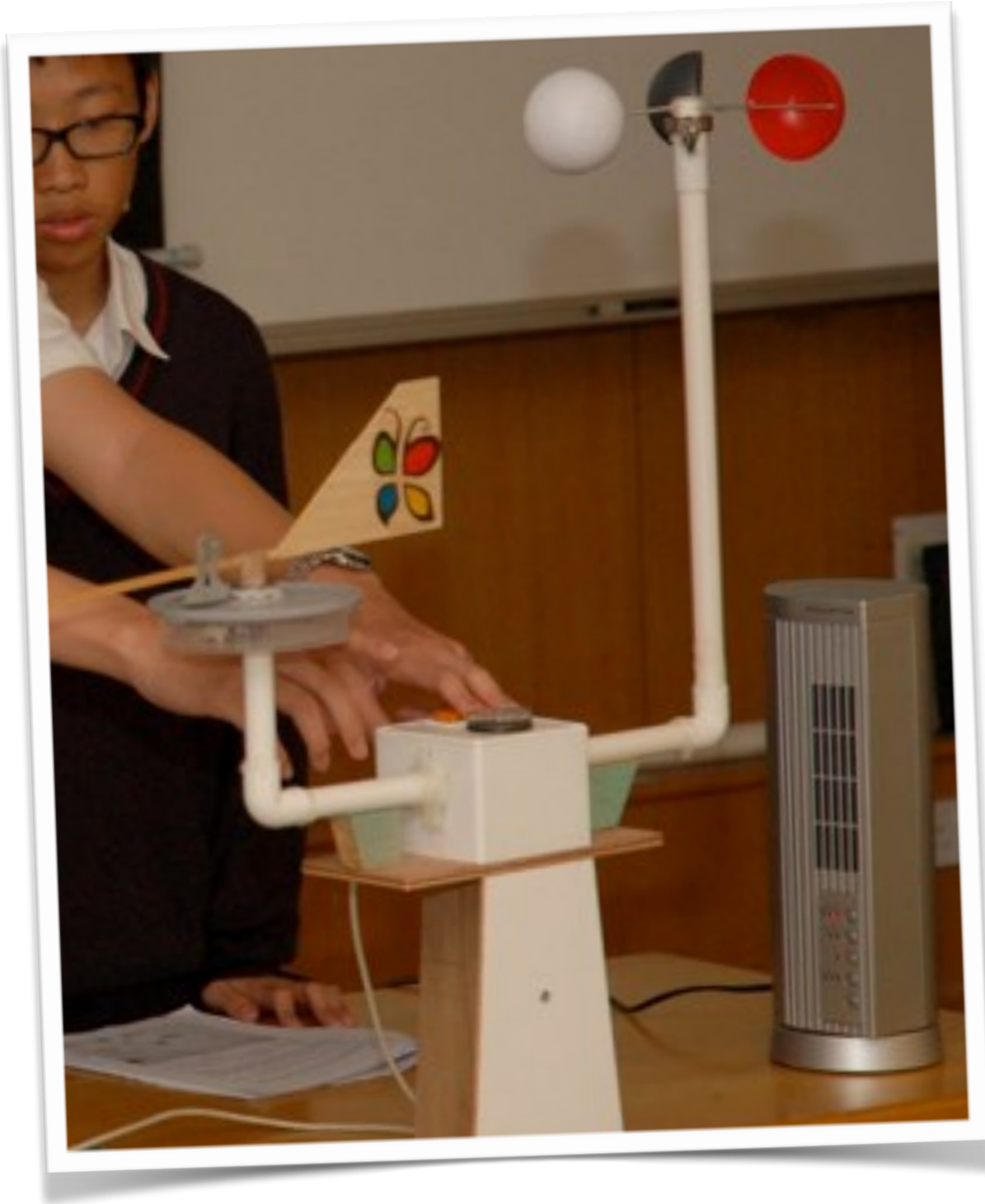


Upcoming events 活動預告

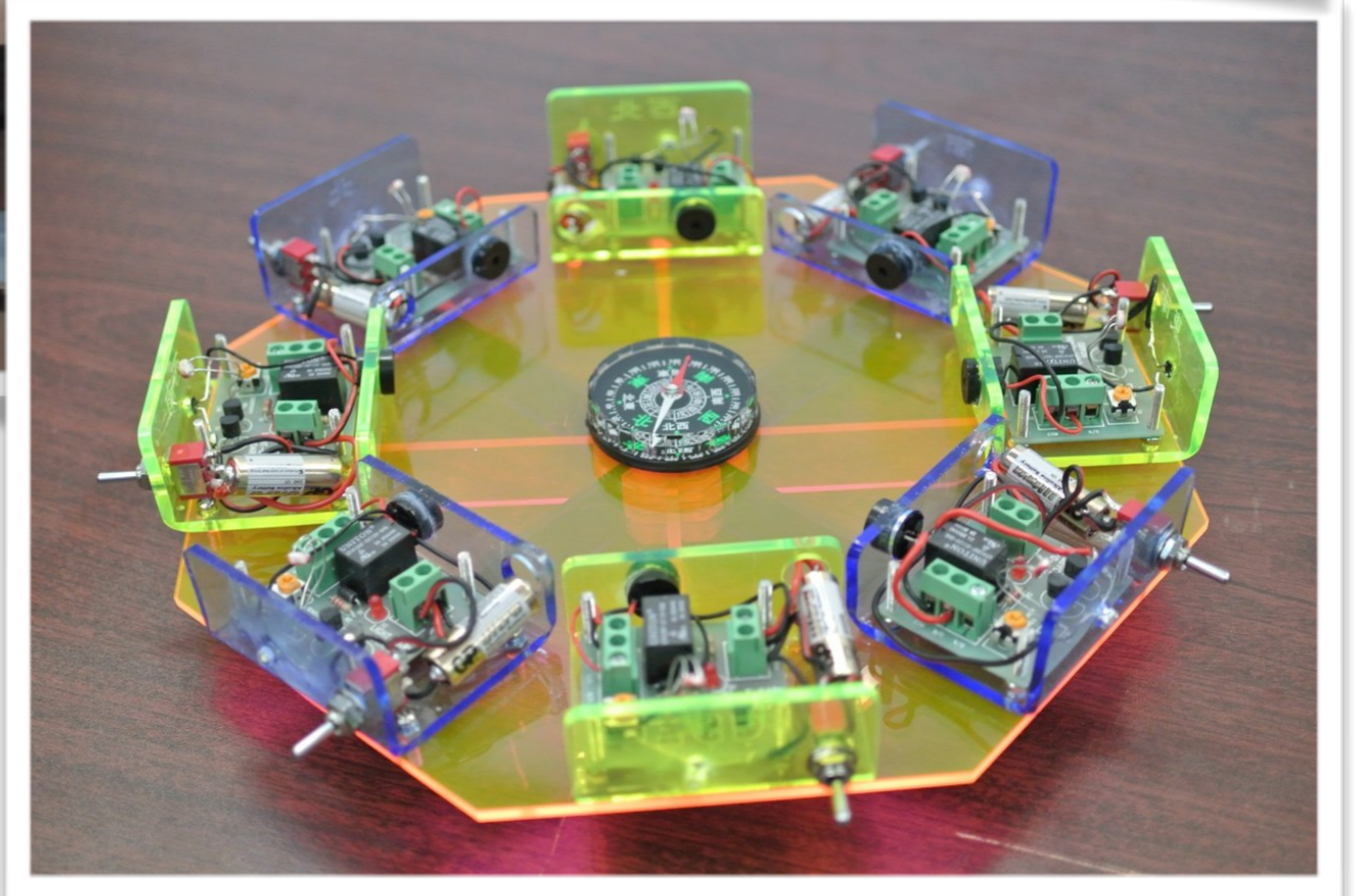
- Project Exhibition, Judging and Award Presentation
作品展覽、評審及頒獎典禮
- 2018-04-28[Sat] / 2018-05-05[Sat] (Tentative 暫定)
09:30-17:30
- Details will be announced two weeks before the exhibition.
詳情於展覽前兩星期公佈。



<http://www.cs.hku.hk/~rain/>



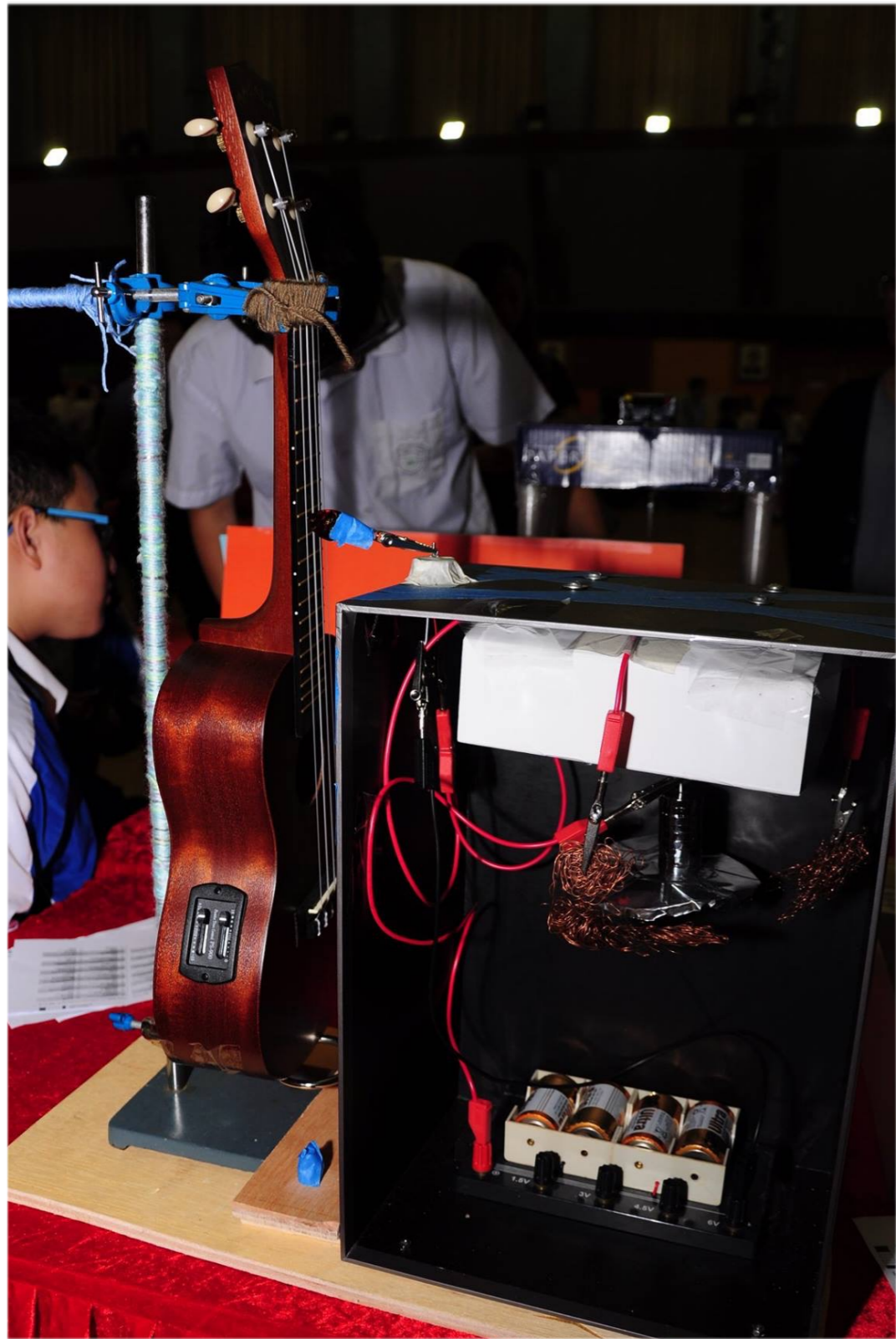
<http://www.cs.hku.hk/~wind/>



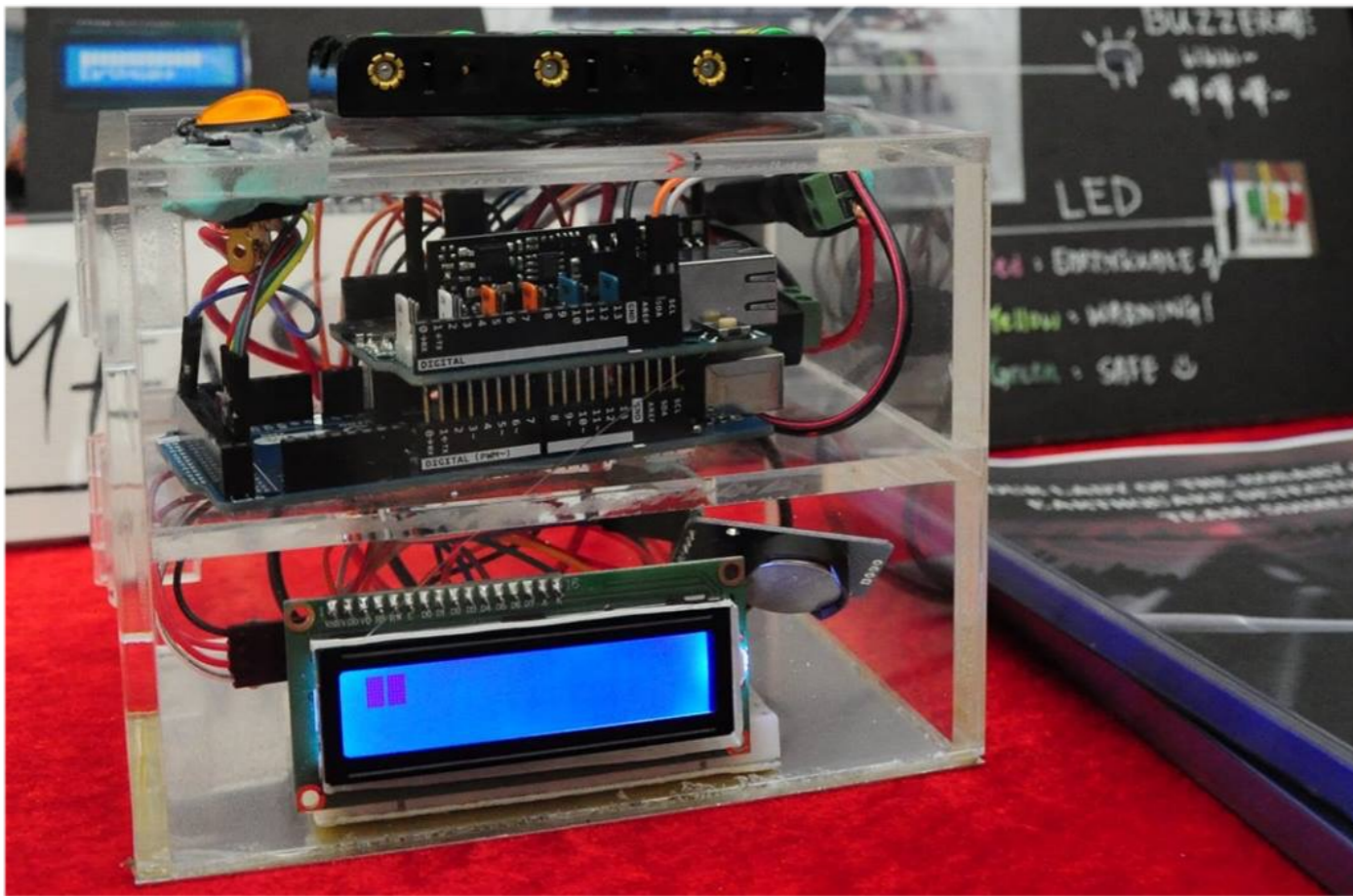
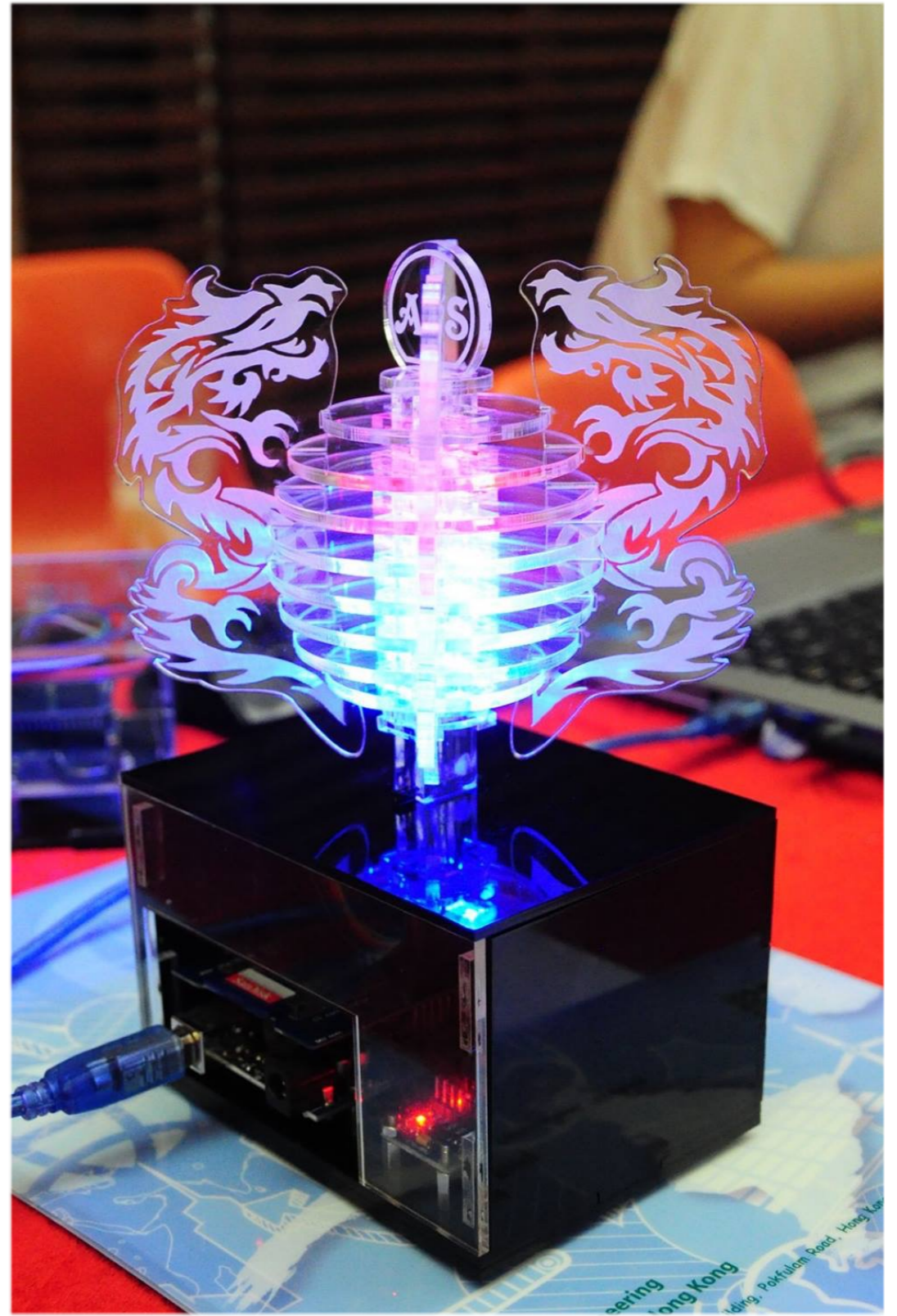
<http://www.cs.hku.hk/~light>



<http://www.cs.hku.hk/~sealevel>



<http://www.cs.hku.hk/~quake>



<http://www.cs.hku.hk/~quake>

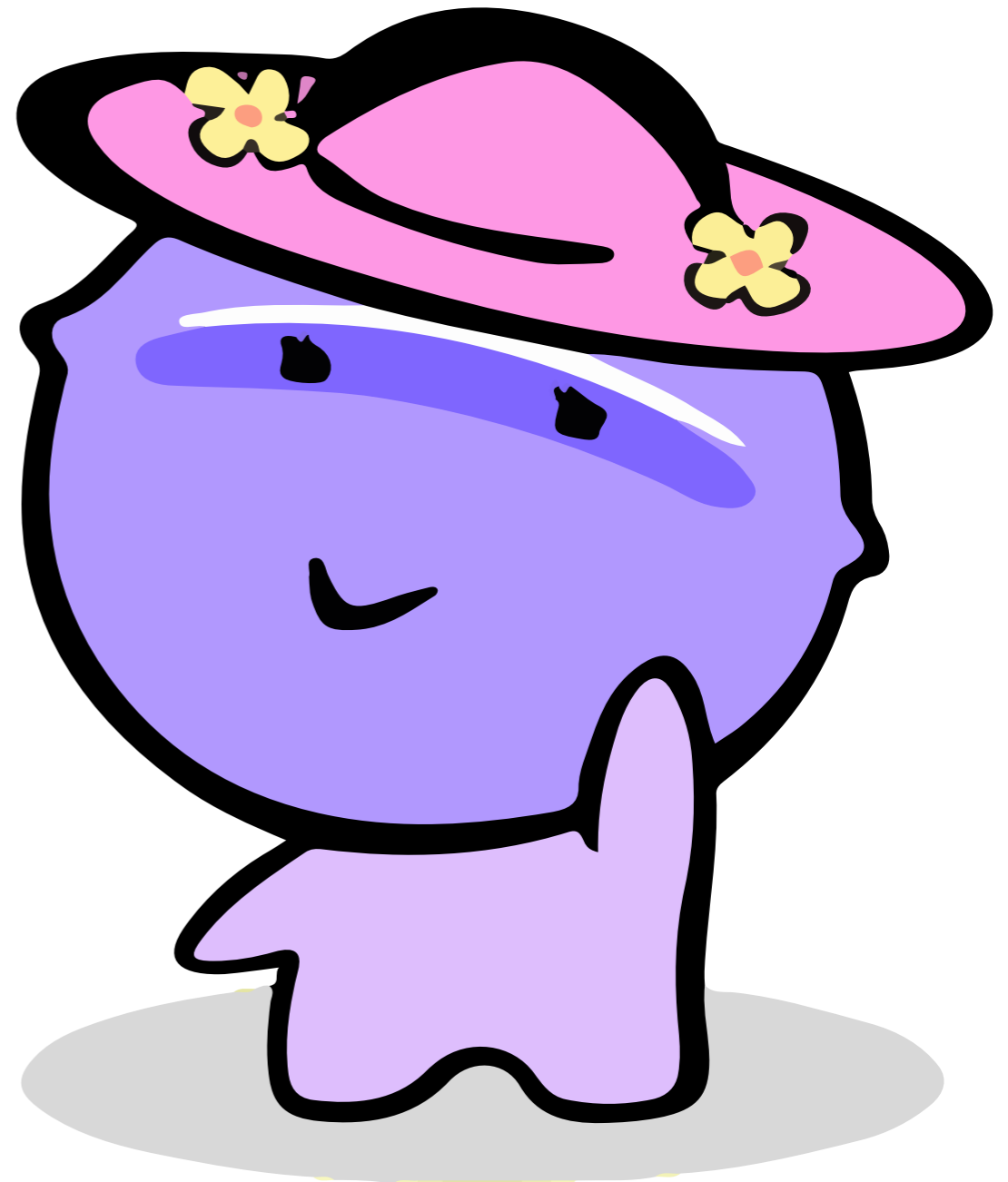
Links 連結



- Competition website 比賽網頁
<http://www.cs.hku.hk/~uv/>
- Facebook page  
<https://www.facebook.com/UVCompetition/>
- Facebook group
<https://www.facebook.com/groups/UVCompetition/>
- Email 電郵 
uv@cs.hku.hk

Thank you 謝謝





<https://www.facebook.com/UVCompetition/>