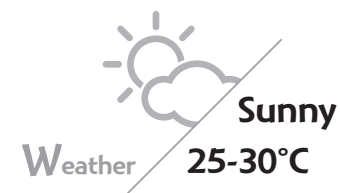




# Junior

9 Thu  
October  
2014



Thursday's Theme:  
**Hot Topics**

英文虎報  
**Standard**

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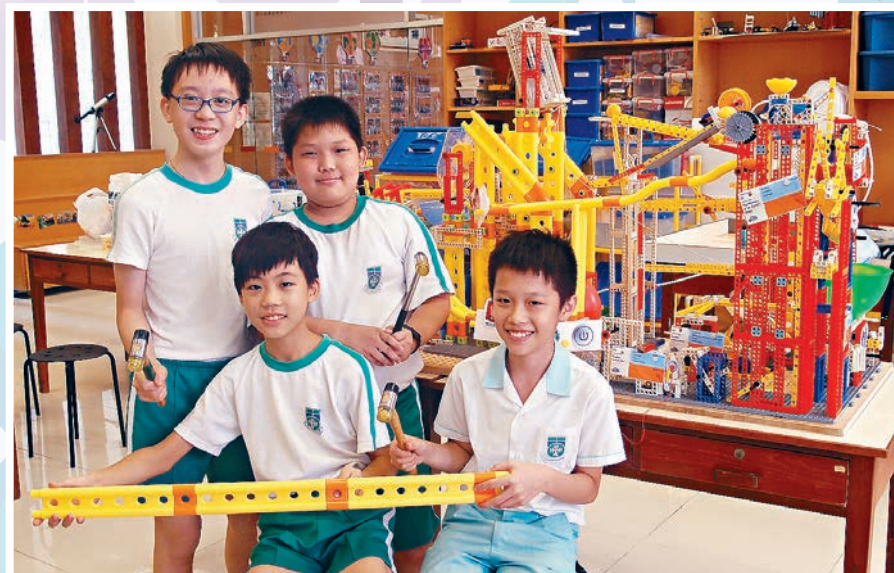
<http://stedu.stheadline.com>

f Junior Standard | Q

## The big build-up

World GreenMech Contest 2014  
winners share their experiences of  
creating eye-opening contraptions

P06-07



### Junior Highlights



#### News in LS

Back to school  
near the Occupy  
protest sites

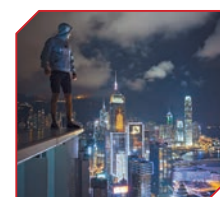
P02-03



#### Pop Quiz

Test your  
knowledge of  
world news

P05



#### Pop Culture

Urban climber  
takes to the  
city's roofs

P08



# Magical mechanisms

This August, some local students went to Taiwan to join the World GreenMech Contest, where they had to build their own set of mechanisms within a limited time. Their creative contraptions won them trophies as well as great respect

**S**TAND before these large machines, and you will witness magic in front of your eyes. Marbles rolling along the tracks, little cars or boats moving, lights turning on, boxes overturning and foam pouring out... One part may **activate** another, just like a **chain reaction**.

You have probably seen such **complicated** setups in films or on TV. But guess what? The machines you see on this page were all designed and built by students just like you! *Junior Standard* has spoken to three winning teams of the contest and listened to their experiences of building GreenMech machines.

## Timing and order

AS you can imagine, it is really **challenging** to design and build a set of mechanisms like these. The four boys from Hong Kong & Macau Lutheran Church Primary School (港澳信義會小學), the champions of the Integrated Section of the contest (Elementary Level), said they spent more than half a year designing their own set. They also **devoted** much time to practising assembling it. "On the first night in Taiwan, we practised till 11pm," team member Kwok Shu-piu says.

Students from Tin Shui Wai Methodist Primary School (天水圍循道衛理小學), who came in second place in the same section, shared that it was important to work together according to a set order. A careful heart and an eye for detail are musts too.

"You have to pay attention to some supporting parts [of the model]. If one part is missing, the model may **collapse** easily," the team mates explain.

## From books to machines

MECHANISMS in the models involve all kinds of science principles that you may have learnt in the classroom, such as electricity, magnetic power and pressure. To design a model, you need to equip yourself well with science knowledge. More importantly, you have to turn ideas into concrete mechanisms.

And that was also one of the enjoyable parts of the contest, said students from Pok Oi Hospital Chan Kai Memorial College (博愛醫院陳楷紀念中學), the first runner-up in the Integration Section (Junior High Level).

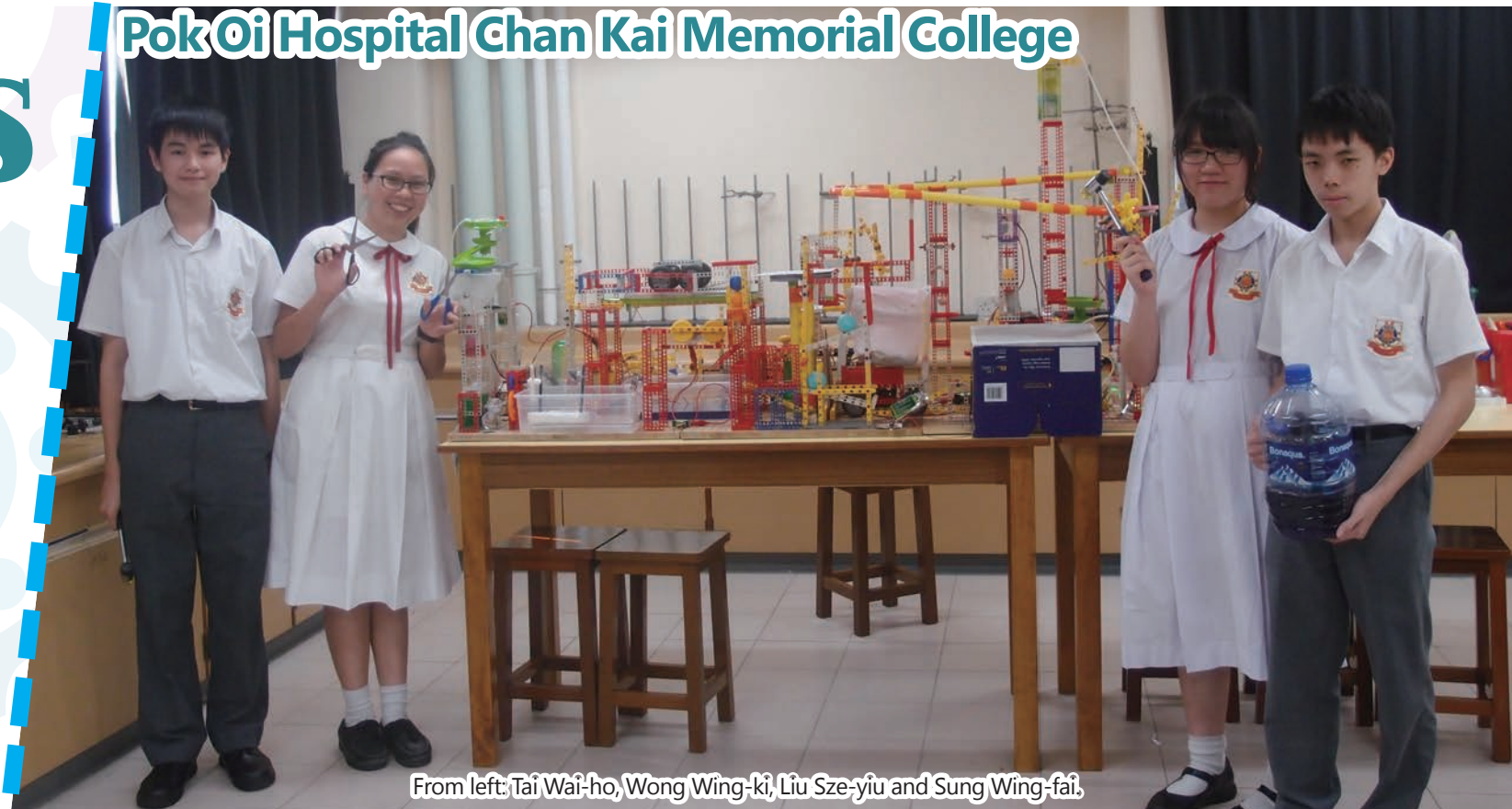
"The knowledge we learn in the classroom... We had no idea how to **apply** it [in daily life]. But joining the contest allowed us to put what we have learnt into practice. It let us learn knowledge beyond textbooks," Sung Wing-fai says.

### Watch the machines move

Search for 'GreenMech contest' on YouTube to see more machines in motion. Be prepared to be amazed by the jaw-dropping machines!



## Pok Oi Hospital Chan Kai Memorial College



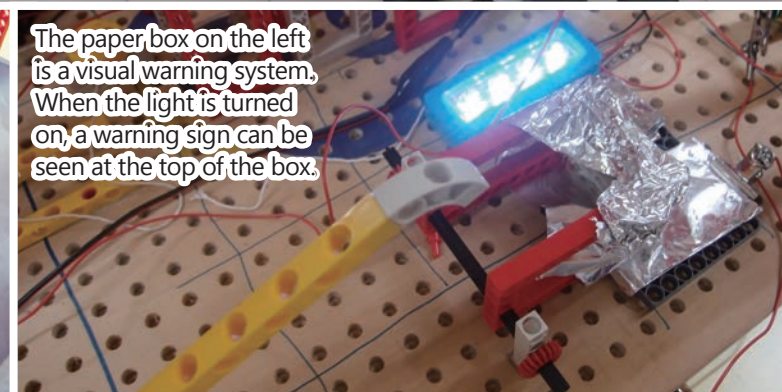
From left: Tai Wai-ho, Wong Wing-ki, Liu Sze-yiu and Sung Wing-fai.



The team set up a vitamin C-dripping contraption right above the DCP solution. So when the machine is on, the blue solution will turn transparent!



The paper box on the left is a visual warning system. When the light is turned on, a warning sign can be seen at the top of the box.



## Hong Kong & Macau Lutheran Church Primary School



From left: Wong Tsz-him, Ju Wai-hang, Lam Sheung-to and Kwok Shu-piu.

## Tin Shui Wai Methodist Primary School



From left: Ng Yu-kit, Chau Kwok-chung, Wong Cheuk-kwan and Wong Yiu-nam.



When the box flips over, the vinegar and baking soda mixes together. It gives off carbon dioxide and water. They become the foam you see here!



This is where the Earth becomes clean again. A dirty Earth rolls down the tracks. When it passes the recycling sign here, it changes into a clean, beautiful Earth.

## Vocabulary

### devote (v) 付出

- M:** to spend time or effort on something  
**E:** Benny **devoted** himself to his new company.

Another word for devote is 'pledge'. It is usually used to describe giving a formal or serious promise to do something.

- E:** The solicitor **pledged** to the Law Society to always uphold the law.

### 1 activate (v) 啟動

- M:** to make something start  
**E:** He **activated** the time machine and travelled to the future.

### 2 chain reaction (n phr) 連鎖反應

- M:** a series of events, each caused by the previous one  
**E:** The attack started a **chain reaction** of violence that ultimately caused the outbreak of war.

### 3 complicated (adj) 複雜的

- M:** consisting of many closely linked parts  
**E:** The human body is **complicated**. I wonder if we will ever fully understand how it works.

### 4 challenging (adj) 有挑戰性的

- M:** difficult in an enjoyable way  
**E:** The scientist loves working on **challenging** questions.

### 5 collapse (v) 倒塌

- M:** to fall down or apart  
**E:** The building **collapsed** because it was built poorly.

### 6 apply (v) 應用

- M:** to use something in a particular situation  
**E:** How did you **apply** this mathematical rule and find out the answer?