

# Hong Kong FLL Robotics Tournament 香港FLL創意機械人大賽



## Supporting Organisations 支持機構

Semia Limited

西覓亞有限公司

Department of Computing, The Hong Kong Polytechnic University

香港理工大學電子計算學系

Venue Sponsor 場地贊助

The Hong Kong Science and Technology Parks Corporation

香港科技園公司

## Enhancing robotic and computer programming skills

In 2005, the HKFYG introduced the First Lego League (FLL), a well-known international programme from the United States. Working in collaboration with the Hong Kong Polytechnic University and Semia Limited, the purpose of the tournament is to improve the creativity abilities of young people by enhancing their robotic and computer programming skills through play and problem solving.

By focussing on how science can be fun, each year a tournament is held with a different theme. Teams are then required to design, build, test and programme autonomous and driver-operated robots that can perform a series of tasks. They must also conduct research and present their findings and suggestions to a panel of judges.

So far, more than 1,500 students from 125 schools and youth centres have participated. Winners of local tournament have had the opportunity to join the World Finals in the USA or join in other overseas competitions.

In 2010, the Champion Team of the Junior Secondary Division was sponsored to join the World Festival in America, while another winning team from the Senior Primary Division joined the Asian Championship held in Taiwan.

## 提升機械及電腦程式編寫能力

香港青年協會於2005年將源自美國的FIRST Lego League (FLL) 機械人比賽引進香港，並將之命名為香港FLL創意機械人大賽，一直聯同香港理工大學電子計算學系和西覓亞有限公司攜手舉辦是項饒富意義的活動，讓學生可輕鬆地體會及探索科學與科技的樂趣。

每年，大會均會設置一個特別主題，參賽學生需據此設計及搭建機械人，然後進行電腦程式編寫，讓機械人能夠完成不同的指定任務；隊伍更需以該年的主題完成及匯報一項研究報告。

過去5屆賽事已吸引超過1,500名來自125間中小學及青年中心的學生參與。得獎學生有機會參加在美國舉辦的世界賽或其他國家的錦標賽，與各國隊伍交流及學習。

2010年的初中組得獎隊伍參與了美國FLL世界賽；高小組別的得獎隊伍則前往台灣參加亞太區FLL國際錦標賽。

"It was such a wonderful experience to participate in the tournaments in Hong Kong and Japan. Not only did our team build up a good rapport, but we really became good friends! This was an unforgettable experience that I will never forget!"

Sham Man-to, Carmel Secondary School

「能夠與隊員參與創意機械人大賽，以及成為香港代表到日本參賽，確是十分難得。透過比賽，我對隊友有更深的認識，並能共同發揮團隊精神『戰鬥』到底。我可以肯定，這是我畢生難忘的經歷，我必定會珍惜！」

迦密中學 岑文濤



# Hong Kong Odyssey of the Mind Programme

## 香港創意思維活動

Co-organiser 合辦機構

Education Bureau  
教育局

Principal Sponsor 主要贊助

Quality Education Fund  
優質教育基金

Supporting Organisation 支持機構

The Hong Kong Institute of Education  
香港教育學院



### Enhancing problem solving skills

Started in the USA and jointly introduced to Hong Kong by the HKFYG and the Education Bureau in 1995, this territory-wide annual event develops life-long skills of innovative thinking and of learning to overcome challenges in a positive way through team work.

So far, more than 9,000 students from 1,085 teams formed in 274 schools and youth centres have participated. The long-term and spontaneous problems of the Programme help participants broaden their thinking, and provide them with the confidence to tackle issues positively and creatively, without the fear or pressure of being “right” or “wrong”.

In 2010 alone, there were a total of 77 teams. Six local teams attended the World Finals in USA to compete with other top finishers from 34 American states and 12 other countries. In the Classical Problem “Discovered Treasures” Division II, POH Chan Kai Memorial College came up a winning solution and were crowned champions out of 61 other teams.



### 提升創意解難能力

香港青年協會與教育局攜手合作，於1995年將源自美國的創意思維活動引進香港。活動培養學生受用的創新思維，建立團隊合作精神和克服挑戰的能力。

活動發展至今，已成一項極具規模的學界盛事；歷年共有逾9,000名學生組成1,085支隊伍參賽。由於題目的解題方法並無限制，參賽者都學會了從多角度思考，變得勇於表達意見。

活動的本地賽於2010年共77支中、小學生隊伍參與。6支冠軍隊伍獲贊助代表香港遠赴美國參加世界賽，與來自美國34個州及12個國家的頂尖隊伍一較高下。博愛醫院陳楷紀念中學在經典題《搵到寶》第二組別共61隊國際參賽隊伍中，憑著無限創意，勇奪冠軍寶座。

*“My Junior Secondary school life changed dramatically after joining OMP! Not only have I been able to expand my way of thinking, but I also had the opportunity to go with my team to the World Finals in USA. There, we were thrilled to be able to make friends with others from around the world and to exchange ideas and experiences. These are unforgettable memories, which have brightened and coloured my entire school life!”*

Chan Cheuk-sze, King Ling College

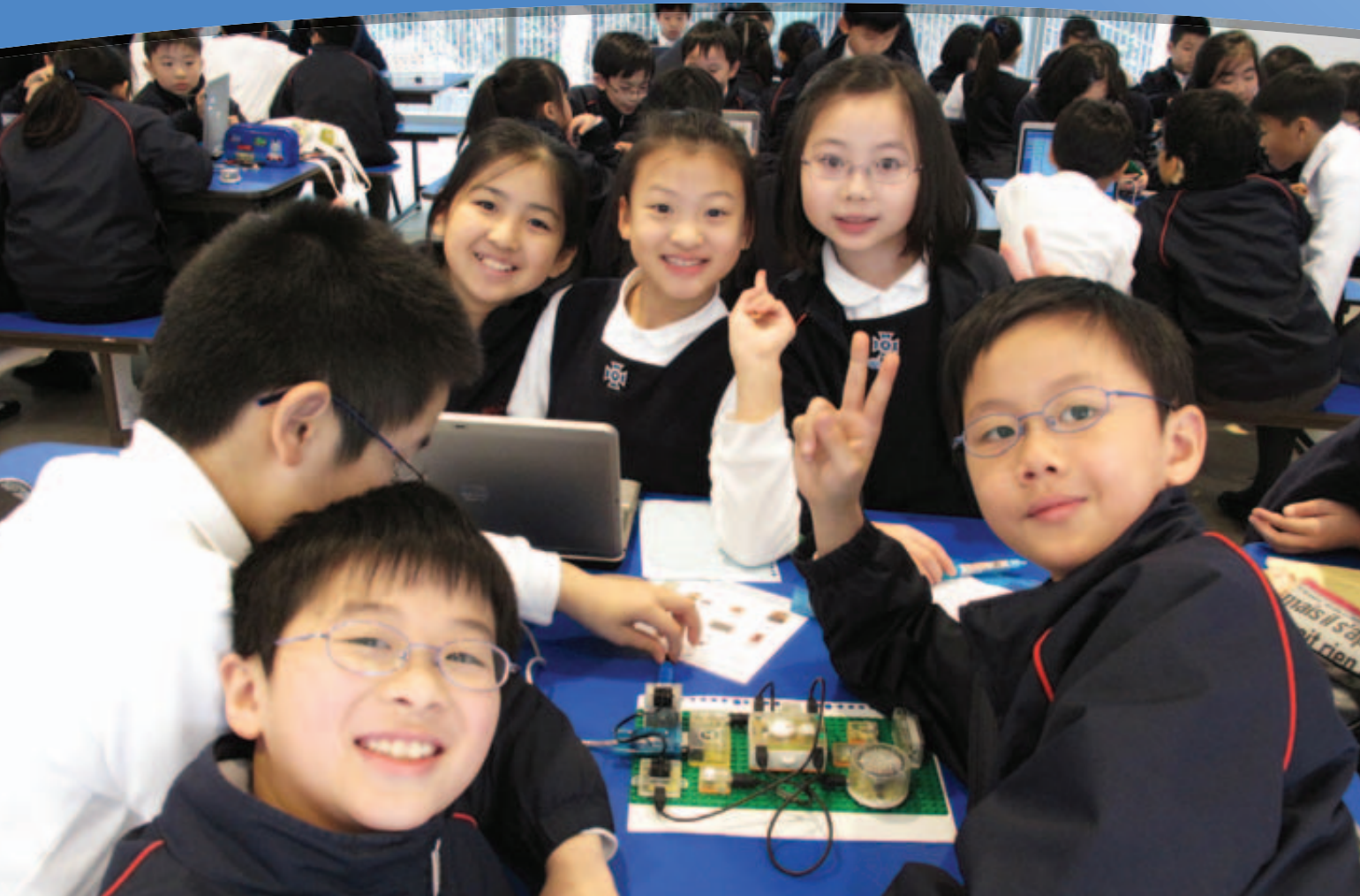
「參加創意思維活動改變了我的中三生活，我享受與同學一起解決難題，更有機會到美國參加世界賽。我們在當地認識了不同的朋友，互相交流創意心得。旅程完結，我擁有了一段深刻難忘的回憶，中學生活也因而變得多姿多彩。」

景嶺書院 陳卓思



# LEAD Creative Class

## LEAD 創意科藝教室



### Sponsor 贊助

The Hung Hing Ying and Leung Hau Ling Charitable Foundation  
孔慶熒及梁巧玲慈善基金

### Learning how to learn

The Learning through Engineering, Art and Design (LEAD) Creative Class was set up in 2008 as a three-year programme offering students a creative way of learning. Working through the curriculum, this programme supports teachers to be innovative by using integrated digital technology.

In 2009-10, the LEAD Creative Class promoted the use of Scratch, which is a multimedia programming software developed by the Massachusetts Institute of Technology Media Laboratory. This technology enables young people to create digital games and animation, while encouraging teachers to be equally creative in teaching.

With support from the Education Bureau, the programme organised "Scratch Day Hong Kong 2010", with the aim to share this pioneering practice of teaching and learning to the wider education sector. Dr. Felicia Tsang, the Education Consultant to the programme, provides an insider's view of how innovative changes take place in schools through the second publication of the programme.

### 學會學習

LEAD 創意科藝工程計劃於2008年推行為期三年的學校教育項目「LEAD 創意科藝教室」，與教師在課程上協作，融入創意和數碼科技，豐富課程改革下創新教學的實踐經驗。

LEAD 創意科藝教室於2009/10 學年開展新猷，推廣由麻省理工學院媒體實驗室所開發的教育軟件Scratch。該軟件讓學生簡易地創作出數碼遊戲和動畫，同時有助鼓勵老師在課堂注入創意元素。

承蒙教育局的支持，「Scratch Day Hong Kong 2010」得以於數碼港舉行，向本港學界推廣富前瞻性的創新教學經驗。本項目另邀得資深教育工作者曾秀芬博士擔任項目教育顧問，撰寫關於學校教學蛻變之第二本項目叢書。



"The programme made it possible to collaborate with a primary school, allowing my students to lead technology workshops for their younger peers. This taught them not only leadership skills, but also helped them enhance their own learning with digital technology."

Mr. Chow Wing-ho, Head of Technology Education of Key Learning Areas, Wa Ying College

「LEAD 創意科藝教室協助我校與小學協作，讓中學同學成為了小學生的科技活動導師，並透過科技獲得寶貴的學習經驗。」

華英中學科技教育學習領域科主任 周永浩老師



# Young Scientist Summer Camp

## 小科學家夏令營



### Sponsor 贊助

Hong Kong Science and Technology Parks Corporation  
香港科技園公司

### Nurturing a new generation of scientists

The Young Scientist Summer Camp was first initiated by the Learning through Engineering, Art and Design (LEAD) Project of the HKFYG in the summer of 2008. The aim is to inspire students from Primary 4 to 6 through fun-filled scientific experiments and creative activities. Now an annual event, the Camp is very popular with both students and parents.

Based at the Hong Kong Science Park, the three-day Camp caters to around 100 young scientists who are able to participate in science talks by experts, workshops on mechanical design, scientific experiments, along with other creative activities.

The final day sees the participants showcase their own projects to their parents. The most creative projects can be recognised by awards for, among other things, mechanical or artistic design, knowledge application or even use of scientific concepts.



### 培養未來小科學家

小科學家夏令營於2008年暑假首次由青協創意科藝工程計劃舉辦，目的為透過有趣的科學實驗及創作活動，提升小四至小六學生對科學的好奇心和興趣，每年均深受家長和學生歡迎。

為期三日的夏令營，以香港科學園作為活動基地，讓逾100位小科學家在創新的環境下學習。參加者透過專家學者的科學講座、機械設計工作坊、科學小實驗和動手創作活動，一嘗成為小科學家的科研歷程。

在夏令營第三日的創作成果展，一眾小科學家向蒞臨的家長及來賓展示和講解其創作品。展覽並設有機械設計、美術設計及知識應用獎，以肯定及嘉許小科學家所展現的創意和付出的努力。

*"I love science, but what I learn in school is only foundational knowledge. The Camp gives me the chance to learn science in a more in-depth way through actually creating something! That is why I have joined the Camp twice!"*

Chang Chun-ho, Primary Six  
Hennessy Road Government Primary A.M. School

「我很喜歡科學，然而學校所得的通常是基礎知識。夏令營讓我更進一步接觸科學知識——我已連續兩年參加夏令營呢！」

軒尼詩道官立(上午)小學小六學生 莊竣皓



# Science Exploration Workshops - sponsored by SONY

## 科學探索工作坊 — 索尼香港贊助

### Principal Sponsor 主要贊助

Sony Corporation of Hong Kong Limited  
索尼香港

### Exploring the secrets of science

In November 2009, the HKFYG Centre for Creative Science and Technology was set up to help young people explore the wonder of science by stimulating their curiosity and interest, through experimentation and experience.

A series of Science Exploration Workshops were initiated especially for students from low income families. From June 2010 to March 2011, 800 senior primary and junior secondary students, from 20 schools, participated in the Workshops which covered such issues as forensic science, environmental science, food science and the science of space.



### 發掘科學的奧妙

2009年11月，香港青年協會創新科學中心在科學園成立，目的是透過有趣、刺激、動腦動手的課程，培養青年對科學的興趣和好奇心。

在索尼香港的贊助下，中心特別為處於較弱勢的學生提供「科學探索工作坊」。工作坊於2010年6月至2011年3月期間，為800名來自20間學校的高小或初中學生提供多元化課程；學科的主題包括鑑證科學、環境科學、食物科學和太空科學等。



*"These Workshops opened up a world of science not always taught through the formal school curriculum. Through exploration and hands-on experiments, students were able to broaden their science knowledge and one could see how inspired they were to continue their study of science."*

*Lee Ka-kei, Teacher of HKTA The Yuen Yuen Institute No.1 Secondary School*

「這項計劃能讓學生學習一些平時課堂上接觸不到的有趣科學知識。經過導師的詳細講解及親身動手做實驗，同學們均大開眼界，對科學有更深的認識，同時亦令他們對科學及將來的學習方向有所啟發。」

香港道教聯合會圓玄學院第一中學 李嘉琪老師

