



## **Students present their hopes for Singapore's next 50 years through inventions at Singapore Amazing Machine Competition 2015**

**SINGAPORE, 28 AUGUST 2015** – More than 200 students from 23 primary, secondary and pre-tertiary institutions conceptualised and built 53 Rube Goldberg<sup>1</sup> machines as part of the Singapore Amazing Machine Competition 2015. Guest-of-Honour Mr Lui Tuck Yew, Minister for Transport and Second Minister for Defence, presented the awards to the competition winners at the Awards Presentation Ceremony this afternoon.

To commemorate SG50 celebrations, this year's competition required students to incorporate their vision for Singapore's next 50 years in their respective machines to tell stories of Singapore's past, present and future.

After months of developing their ideas, testing the conceptual machines and going back to the drawing board, the 53 teams were given one day to bring their ideas to life by setting up their machines at Science Centre Singapore yesterday. Their entries were subsequently judged based on several criteria that included creativity, number of distinct scientific concepts incorporated, successful completion of the task and the quality of their presentations to the judges. The teams were also awarded bonus points for submitting videos of their learning journey. These videos highlight the learning process behind the development of their machines from the initial ideation phase to the final submission.

This year's Category C Winner from Anglo-Chinese School (Independent) utilised their creation to tell the story of how Singapore was transformed from Third World to First within a short span of 50 years. Following a series of scientific concepts and models such as Newton's Cradle, falling dominoes and electric circuits, the team managed to complete the formation of the characters forming "HAPPY" and "SG50" a letter at a time, highlighting the overall complexity demonstrated in their invention and impressing this year's judges.

Speaking about the School of Science and Technology's (SST) participation as an organiser of the SAMC, Mr Hoe Wee Meng, Principal, SST, said, "Science, Technology, Engineering and Mathematics (STEM) and applied learning are at the core of SST's programme. Being part of the

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<sup>1</sup> Devices that are deliberately over-engineered or overdone to perform a very simple task in a very complicated fashion, usually including a chain reaction.



organising team behind SAMC has enabled us to champion the acquisition and application of STEM skills to a wider group of students. Every year, we continue to be impressed by the quality of submissions and the calibre of the participants. We hope that the students' experience at SAMC will ignite in them a greater passion to delve deeper and hone their new knowledge and skills."

Mr Tan Soo Kee, Head (Outreach), DSO National Laboratories, commended the participants' performance during this year's SAMC. "The participants this year put up a great show with their entries and successfully incorporated creative elements and scientific concepts in their machines, fulfilling SAMC's objective of promoting science and creativity. Their ability to successfully string together distinctive steps to create their own Rube Goldberg machines demonstrates their sound understanding of each individual scientific concept, and also of how everything comes together."

More details about the SAMC 2015 winners, awards and prizes are found in **Annex I** and **Annex II**.

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### **About Singapore Amazing Machine Competition**

SAMC is part of the DSO Amazing Series of Competitions, an outreach programme aimed at promoting interest in Science, Technology, Engineering and Mathematics (STEM) amongst young Singaporeans across the primary to tertiary levels. The programme's ultimate goal is to raise the brand awareness of DSO as a national defence R&D organisation, and interest young Singaporeans in a career in defence science and technology. Since its inception in 2008, SAMC has attracted more than 660 participants from 67 schools. The SAMC comprises three competition categories - Category A (Primary Schools), Category B (Sec 1-3/IP 1-3), and Category C (Sec 4/IP 4-6/JCs/CI/Polytechnics/ITEs. For more information, visit [www.dsoamazingcompetitions.com.sg/samc](http://www.dsoamazingcompetitions.com.sg/samc).

^ Videos of Rube Goldberg machines in action can be viewed at:

<https://www.rubegoldberg.com/rube-tube/>.



## **About the organisers**

### **DSO National Laboratories**

DSO National Laboratories (DSO) is Singapore's national defence research and development organisation. It undertakes indigenous development of advanced defence and weapon systems that provide the Singapore Armed Forces with the superior technological edge in the battlefield. With more than 1,300 research scientists and engineers, DSO researches into emerging technologies, matures promising ones and integrates them into innovative system concepts to meet Singapore's defence and security needs. For more information, please visit [www.dso.org.sg](http://www.dso.org.sg).

### **Science Centre Singapore**

Science Centre Singapore is a non-formal educational institution and a leading regional Science Centre. A custodian of creativity and innovation, the Centre has captured the evolution of scientific developments through unique and relevant exhibitions and shows.

The Centre houses 14 exhibition galleries with more than 1,000 exhibits, and another 30,000 sq metres of outdoor exhibition space showcasing the Waterworks exhibition, Ecogarden and Kinetic Garden. Other Science Centre Singapore attractions include the Omni-Theatre, Snow City and KidsSTOP™.

The Centre and its partners have played a pivotal role in transforming the way students and the public interact with and learn about science and technology. Together with the Omni-Theatre, KidsSTOP™ and Snow City, it has engaged and enriched close to 30 million students and visitors since 1977.

The Science Centre, Omni-Theatre and Snow City received 1.30 million visitors for FY2014/2015. For more information, please visit [www.science.edu.sg](http://www.science.edu.sg).

### **School of Science and Technology, Singapore**

The School of Science and Technology, Singapore (SST) is a Specialised Independent School that offers a distinctive 4-year GCE O-Level programme with an integrated approach to applied learning. Learning in SST is multi-faceted as students gain a strong foundation of key academic concepts in core subjects like Mathematics and Science. Having delivered success at the GCE O-



Level examination, the school aims to be a global leader in transforming learning and nurture passionate innovators through real-world applications of science and technology. For more info, visit [www.sst.edu.sg](http://www.sst.edu.sg).

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## **ANNEX I**

### **SAMC 2015 Winners**

#### **Category A – Primary 4 to 6**

<b>Award</b>	<b>Team Name</b>	<b>School</b>
1 <sup>st</sup> Prize	Singa Team@SG	Kheng Cheng School
2 <sup>nd</sup> Prize	The Awesome Girls	Unity Primary School
3 <sup>rd</sup> Prize	McRobots	Kheng Cheng School

#### **Category B – Secondary 1 to 3, Integrated Programme Year 1 to 3**

<b>Award</b>	<b>Team Name</b>	<b>School</b>
1 <sup>st</sup> Prize	Team 111	Raffles Girls' School (Secondary)
2 <sup>nd</sup> Prize	VDDK	School of Science and Technology, Singapore
3 <sup>rd</sup> Prize	NUSHS	NUS High School of Mathematics and Science

#### **Category C – Secondary 4, Integrated Programme Year 4 to 6, Junior College, Centralised Institutes, Polytechnics, Institutes of Technical Education**

<b>Award</b>	<b>Team Name</b>	<b>School</b>
1 <sup>st</sup> Prize	ACSI Team 1	Anglo-Chinese School (Independent)
2 <sup>nd</sup> Prize	NYGH Team 1	Nanyang Girls' High School
3 <sup>rd</sup> Prize	Amazing Crazy	Anderson Junior College

#### **Awards Category**

<b>Award</b>	<b>Team Name</b>	<b>School</b>
The Creative Machine Award	The Awesome Girls	Unity Primary School
The Sophisticated Machine	The Complex	Anglo-Chinese Junior College
The Best Presentation Award	Singa Team@SG	Kheng Cheng School
The Best Video Award	ACSI Team 3	Anglo-Chinese School (Independent)



**ANNEX II**

**SAMC 2015 Prizes**

**Category A – Primary 4 to 6**

Award	Prizes
<p><b>1<sup>st</sup> Prize</b></p>	<p>Team Trophy Each member receives:</p> <ul style="list-style-type: none"> <li>• Medal</li> <li>• Gold Ribbon</li> <li>• iPad Mini</li> </ul>
<p><b>2<sup>nd</sup> Prize</b></p>	<p>Each member receives:</p> <ul style="list-style-type: none"> <li>• Medal</li> <li>• Silver Ribbon</li> <li>• Samsung Tablet</li> </ul>
<p><b>3<sup>rd</sup> Prize</b></p>	<p>Each member receives:</p> <ul style="list-style-type: none"> <li>• Medal</li> <li>• Blue Ribbon</li> <li>• iPod Nano</li> </ul>

**Category B – Secondary 1 to 3, Integrated Programme Year 1 to 3**

Award	Prizes
<p><b>1<sup>st</sup> Prize</b></p>	<p>Team Trophy Each member receives:</p> <ul style="list-style-type: none"> <li>• Medal</li> <li>• Gold Ribbon</li> <li>• iPad Mini</li> </ul>
<p><b>2<sup>nd</sup> Prize</b></p>	<p>Each member receives:</p> <ul style="list-style-type: none"> <li>• Medal</li> <li>• Silver Ribbon</li> <li>• Samsung Tablet</li> </ul>
<p><b>3<sup>rd</sup> Prize</b></p>	<p>Each member receives:</p> <ul style="list-style-type: none"> <li>• Medal</li> <li>• Blue Ribbon</li> <li>• iPod Nano</li> </ul>



**Category C – Secondary 4, Integrated Programme Year 4 to 6, Junior College, Centralised Institutes, Polytechnics, Institutes of Technical Education**

Award	Prizes
<b>1<sup>st</sup> Prize</b>	Team Trophy Each member receives: <ul style="list-style-type: none"> <li>• Medal</li> <li>• Gold Ribbon</li> <li>• iPad Mini</li> </ul>
<b>2<sup>nd</sup> Prize</b>	Each member receives: <ul style="list-style-type: none"> <li>• Medal</li> <li>• Silver Ribbon</li> <li>• Samsung Tablet</li> </ul>
<b>3<sup>rd</sup> Prize</b>	Each member receives: <ul style="list-style-type: none"> <li>• Medal</li> <li>• Blue Ribbon</li> <li>• iPod Nano</li> </ul>

**Awards Category**

Award	Prizes
<b>The Creative Machine Award</b>	Each member receives: <ul style="list-style-type: none"> <li>• Medal</li> <li>• Red Ribbon</li> <li>• Parrot Minidrone Rolling Spider</li> </ul>
<b>The Sophisticated Machine</b>	Each member receives: <ul style="list-style-type: none"> <li>• Medal</li> <li>• Red Ribbon</li> <li>• Parrot Minidrone Rolling Spider</li> </ul>
<b>The Best Presentation Award</b>	Each member receives: <ul style="list-style-type: none"> <li>• Medal</li> <li>• iPod Shuffle</li> </ul>
<b>The Best Video Award</b>	Each member receives: <ul style="list-style-type: none"> <li>• Medal</li> <li>• iPod Shuffle</li> </ul>