

Particle Accelerator Workshop Booster

**Ages 7–14 |
Applied Science
Hands-on**

**DSA Portfolio Boost |
Duration: 1 hr**



Photo is for illustrative purposes, design varies according to actual product made by students.

A program of Applied Computational Intelligence Institute Curriculum powered by the Explainable Intelligence™ Framework with research support from the Cognitive Intelligence Lab



Another World Class Content by Cognitive Intelligence Lab

Learn about static, circuitry and particle accelerator!

QUANTUM PHYSICS MADE EASY AND FUN!

From the Same creators of Particle accelerator Display and Workshop at **The Art Science Museum!**

Yes, particle accelerator science is a critical, applied part of quantum physics, specifically within the fields of particle and nuclear physics. Accelerators use electromagnetism to speed up particles, allowing researchers to study quantum phenomena, test the Standard Model, and create new particles by converting energy into matter. Now, Let's make it fun!



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World Class Framework:

Cognitive Systems Academy™

Students learn to explain how their code and systems behave, like **Harvard (CS50) and MIT**, they don't start by memorizing syntax.

Curiosity, reasoning, and understanding always come first.



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Key Takeaways

DSA PORTFOLIO BUILD UP

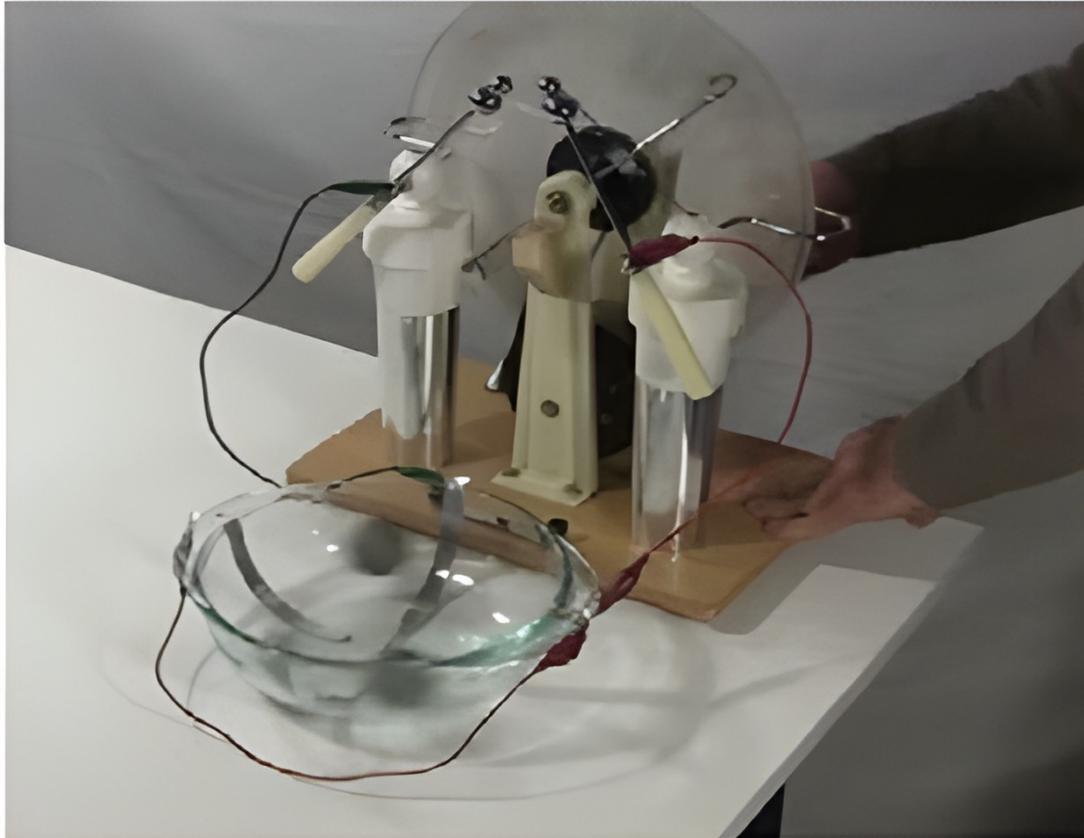
- Each student receives a Digital DSA Portfolio
- DSA write-up, Testimonial & Evidence

Skill Sets:

- Creativity
- Communication Skills
- Collaboration & Cooperation
- Goal Orientation
- Leadership Skills
- Analytical Reasoning
- Scientific, Robotics concepts
- 21st century skills competencies
- Robotic Technological application and concepts



Optional: 1 Hour Hands on- try outs sparks and race the balls!



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Students get hands on
experience
With wimshurst machine

Interactive Lab

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Optional : Interactive Lab: Van de Graaff Sparks!



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With Van de Graaff machine

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SHOW OFF!

Let's Show Off!

Present what you have built!

Student presentations to parents at Open House.

- 1) Introduce your team and name your design!
- 2) What does it do?
- 3) What are your roles?
- 4) How does it work?
- 5) Share one challenge you encountered during the build.
- 6) What is your solution?
- 7) Why Should we vote for you?

14 Years of Pioneering STEM Education & Robotics in Singapore

By creators of FLL Grand Champion

Award-Winning Curriculum

Developed by FLL Grand Champion Master Trainers.

Curriculum developed by experienced, award-winning robotics and computing educators, and refined through the **Explainable Intelligence™ Curriculum Framework** with research support from the *Cognitive Intelligence Lab*.



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COGNITIVE SYSTEMS ACADEMY™

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CODING. REIMAGINED.

Building Intelligence Through Systems Thinking & Explainable AI

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