

## **Introduction**

Thank you for your interest in embarking on this project and serving together with IMDA! We strongly believe that our club members can become convincing tech ambassadors who will spread the knowledge and excitement for emerging technologies.

Here is a breakdown of the main components of the project.

<b>Main Component</b>	<b>Estimated number of hours</b>	<b>Month</b>
Online training by partner	1.5 – 2	February
Communications module by IMDA <sup>1</sup>	1	February
Planning and execution of VIA project (Teaching schoolmates)	2 – 3	March

The rest of this attachment contains:

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You may click [here](#) to register once you have decided which training programme best suits your club members.

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<sup>1</sup> Club members should complete this module before carrying out the project and teaching their schoolmates. This module comprises a video which will cover conversational and teaching skills. The module should be completed as part of CCA training as there will be hands-on activities for members to try out. The URL for the video and a suggested lesson plan will be sent in a follow-up email.

### Timeline of project

<b>January</b>	<ul style="list-style-type: none"> <li>• Teachers seminar announcement by IMDA</li> <li>• Registration for training programmes by teachers</li> <li>• Allocation of schools to partners by IMDA</li> </ul>	<ul style="list-style-type: none"> <li>• 14 January</li> <li>• 14 January – 26 January</li> <li>• 27 January – 4 February</li> </ul>
<b>February</b>	<ul style="list-style-type: none"> <li>• Online training of infocomm media club members by partners</li> <li>• Completion of IMDA’s communication module</li> </ul>	<ul style="list-style-type: none"> <li>• 7 February – 4 March</li> </ul>
<b>March</b>	<ul style="list-style-type: none"> <li>• VIA projects to be carried out, i.e infocomm media club members to share with their schoolmates</li> <li>• Submission of list of infocomm media club members that have completed the project and an estimated number of schoolmates they have shared with</li> <li>• Submission for newsletter story contest<sup>2</sup> by school</li> </ul>	<ul style="list-style-type: none"> <li>• 4 – 31 March</li> </ul>
<b>April</b>	<ul style="list-style-type: none"> <li>• Sending out of certificates and enamel badges by IMDA</li> <li>• Announcement of newsletter story contest winners by IMDA</li> </ul>	<ul style="list-style-type: none"> <li>• 1 – 15 April</li> <li>• 16 – 31 April</li> </ul>

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<sup>2</sup> A follow-up email will be sent with details on how to submit the list of club members who have completed the project as well as how to enter the newsletter story contest.

### Overview of Programmes

Recommended student demographic	<b>Secondary</b>	<b>Upper Secondary / JC / IP</b>	<b>Upper Primary</b>
<b>Partner</b>	<b>Intel x ITE x Sustainable Living Lab</b>	<b>LemmaTree</b>	<b>SoftBank Telecom x ITE x Sustainable Living Lab</b>
<b>Title / duration of programme</b>	Exploring Artificial Intelligence with the community  <b>(2 hours)</b>	Decentralised Identity: How to Own your Identity with Web 3.0  <b>(1.5 hours)</b>	Social Robotics: Programming a Social AI Robot (NAOV6)  <b>(2 hours)</b>
<b>Summary of programme</b>	<p>AI is not limited to specific industries like automation or manufacturing. Rather, it has become an integral part of communities in the service industry. This sudden intrusion of AI may have caused distress for many as they may not be fully aware of what AI is, or how they can harness it.</p> <p>Through this program, students will be equipped to provide others with a</p>	<p>In today's digital world, we often give others access to our identity data without knowing the extent that it is shared and used. In fact, many of us do not know how much power we can have over our own data. Ownership of our personal data can be achieved through blockchain technology.</p> <p>Join us as we bring you into the future of the Internet (or Web 3.0). Explore how decentralised identity works in our daily lives and what that means for you and the people around you. Who knows, you could be the creator</p>	<p>Social robots are already making an impact around the world by interacting with people in a variety of settings.</p> <p>Join us to learn about social robotics and its broad applications in society. In addition to that, get to interact with SoftBank Robotics' NAOv6 humanoid robot, one of the leading social AI robot platforms.</p> <p>Students will get to program NAOv6 to communicate verbally and complete actions like dancing or practising tai-chi!</p>

	foundational understanding of AI and its impact on their daily tasks. This program will be supported by fun and experiential activities where an AI robot could be programmed to perform simple functions like talking and moving.	of the next life-changing application in this space!	
<b>Learning objectives</b>	<p>By the end of the training, students will be able to:</p> <ul style="list-style-type: none"> <li>• Understand the fundamentals of AI including its limitations and misconceptions surrounding it</li> <li>• Learn how AI impacts daily tasks and how to use the power of AI in robotics</li> <li>• Program a robot to detect objects, answer questions and perform various actions like dancing, kungfu, etc</li> </ul>	<p>By the end of the training, students will be able to:</p> <ul style="list-style-type: none"> <li>• Understand what Web 3.0 and decentralised identity is</li> <li>• Learn how this technology works</li> <li>• Know how they can own their identity data and safeguard it</li> </ul>	<p>By the end of the training, students will be able to:</p> <ul style="list-style-type: none"> <li>• Understand what social robotics is and its practical application</li> <li>• Program the social AI Robot NAOv6 to respond to voice command and perform various actions like dancing, tai-chi, etc.</li> </ul>
<b>Overview of topics and content covered</b>	<ul style="list-style-type: none"> <li>• Introduction to AI</li> <li>• How AI can be integrated into daily tasks</li> </ul>	<ul style="list-style-type: none"> <li>• What is blockchain, Web 3.0 and decentralisation?</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Social AI Robots</li> <li>• Introduction to NAOv6</li> </ul>

	<ul style="list-style-type: none"> <li>• Introduction to AI in Robotics</li> <li>• Learning to program a robot</li> <li>• Programming a robot to respond to voice commands to perform actions</li> </ul>	<ul style="list-style-type: none"> <li>• What can you do with this technology?</li> <li>• What is an NFT? How do you own one?</li> <li>• What is Decentralised Identity Data (DID) and the Trust Triangle?</li> <li>• Applications/Use Cases of DID in real life</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Choregraphe Block programming software</li> <li>• Program NAOv6 to respond to voice commands</li> <li>• Program NAOv6 to respond with actions</li> </ul>
<p><b>Specific requirements for schools / students</b></p>	<ul style="list-style-type: none"> <li>• Laptop with internet access and UBTECH's uCode software installed. (web browser version also available)</li> <li>• ITE will loan 1 Alphamini robot to each school for the duration of both the training and VIA project execution phases.</li> </ul>	<ul style="list-style-type: none"> <li>• Mobile phone or laptop with internet access</li> <li>• Email address</li> </ul>	<ul style="list-style-type: none"> <li>• Laptop* with internet access and Softbank's Choregraphe software installed</li> <li>• SB Telecom will loan 1 NAOv6 robot to each school for the duration of the VIA project execution phase.</li> </ul> <p><b>*Recommended Specs:</b></p> <p><i>3.4 GHz CPU</i></p> <p><i>16 GB RAM</i></p> <p><i>a certified OpenGL graphics card</i></p>

You may click [here](#) to register for one of the programmes.

## **Recommendations for carrying out project**

Once club members have been trained by the partners, they are to play the role of tech ambassadors. In this role, they are to pass on the knowledge by educating their fellow schoolmates. The partners will make their training slides and notes available for the members to adapt accordingly.

Here are some suggested ways on how to carry out the project:

- Put up an emerging tech showcase booth during recess or after school
- Conduct an assembly talk
- Create an online lesson for students to log on to
- Record and put up an online video for students to view asynchronously

As much as possible, we hope for club members to grow in their confidence as they present about such topics in an interactive and engaging manner.

We look forward to hearing from all the participating clubs on the creative ways in which you carried out the project!

## **FAQ**

**1. How many training sessions will there be?**

There will be 1 training session conducted. The duration of the session will be partner and content specific. Each session will not exceed 1.5 – 2 hours.

**2. Will these training sessions be conducted face to face or virtually?**

They will strictly be conducted online considering the current COVID situation.

**3. Will your partners and trainers be able to accommodate my CCA training schedule?**

IMDA will try to accommodate your school's CCA training schedule to the best of our ability. As the trainers are all industry volunteers, we also need to take their availability into consideration. The finalised schedule of training sessions will be sent in a follow-up email to schools that have successfully secured a place.

**4. How many of these courses can my school sign up for?**

Each school can only sign up for one of the trainings. We aim to maximise the number of schools that can come on board the Tech for Good VIA project.

**5. My school does not meet the minimum requirement for number of students, is it possible to sign up?**

We would strongly encourage hitting the minimum of 10 students as we also would want to honour our partners' time and commitment.

**6. Is the training and VIA project strictly only for infocomm club members? Can non-club members join in?**

Yes, the training and VIA project are strictly only for infocomm club members. We will inform you should there be offerings which are open to non-club students in future.

**7. My school is having a major school event / tests and exams – can the training and project take place later in the year?**

The training and project must be completed by the end of March in order for club members to be eligible to receive the badges and certificates. There will be another run in July 2022. Stay tuned for more details!

**8. Are we free to modify the suggested VIA activity?**

Through the VIA, we hope club members get the chance to teach others and perform the role of tech ambassadors. The actual content and scope can be modified accordingly to suit the target audience.

**9. How many beneficiaries should the students reach and impact through the project?**

Each school should aim to reach at least 40 beneficiaries.

**10. Can the VIA activity be counted towards LEAPS? How should the VIA hours be calculated?**

Yes, this VIA activity can be counted towards fulfilling the service component of LEAPS. You may include the training hours as well as time spent on the planning and execution of the project.

Eg:

Training = 2 hours

Project planning = 2 hours

Project execution = 1 hour

Total = 5 hours

**11. How do I assess whether a student has fulfilled the requirements and completed the project?**

A student is considered to have fulfilled the requirements and completed the project when he or she has completed both the training and execution phases of the project.

We will be awarding and mailing out the badges and certificates after receiving a list of students who have completed the project.



**12. Are there follow-up courses or learning journeys on offer from the partners?**

You may refer to the training courses offered by IMDA for more learning opportunities. We are constantly working to bring new and exciting activities to benefit your students. Follow our newsletter for the latest news and updates.