

STEM Little Explorer Programme

The STEM Little Explorer Programme is a weekly programme to encourage creativity and hands-on learning in children through breadth of learning. This programme empowers students to experience a variety of Robotics and Coding platforms, such as LEGO Robotics, 3D Pen, Scratch Game Creation, and Science related electronic assembly projects. The lessons are held regularly every week. Students will be exploring different Science topics each week with a mix of lessons across the different robotics and coding platforms.

Course Information	
Recommended Age	Ages 6 to 8 (K2 to Primary 2)
Class Duration	2 hours per session
Class Size	Max. 4 Students to 1 Instructor
Course Fees	Lessons are charged either
	Monthly (4 sessions) at \$336 or Quarterly (12 sessions) at \$960 (5% off)



April 2022 – STEM Little Explorer Classes

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
28	29	30	31	1	2	3
				4pm to 6pm	4pm to 6pm	4pm to 6pm
4	5	6	7	8	9	10
	4pm to 6pm			4pm to 6pm	4pm to 6pm	4pm to 6pm
11	12	13	14	15	16	17
	4pm to 6pm			Good Friday	4pm to 6pm	4pm to 6pm
18	19	20	21	22	23	24
	4pm to 6pm			4pm to 6pm	4pm to 6pm	4pm to 6pm
25	26	27	28	29	30	1
	4pm to 6pm			4pm to 6pm	4pm to 6pm	4pm to 6pm





Robotics Certificate Programme (LEGO[®] Education SPIKE[™] Prime)

The Robotics Certificate Programme is created by Nullspace to develop LEGO Robotics proficiency in children. Students will learn to build and program the brand-new LEGO Education SPIKE[™] Prime robots through 6 structured levels, with various sensors and programming automation. Our structured LEGO Robotics curriculum prepares students for the rigours of robotics competitions. Students who complete our Robotics Certificate Programme will then be invited to join our Competition Training Programme to represent Team Nullspace in National Robotics Competitions.

Course Information	
Recommended Age	Ages 9 and above (Primary 3 and higher levels)
Class Duration	2.5 hours per session
Class Size	Max. 3 Students to 1 Instructor
Course Fees	Lessons are charged according to our course package prices
	4 sessions - <u>\$420</u> or 8 sessions - <u>\$800</u> (5% off) or 24 sessions - <u>\$2280</u> (10% off)

Course Structure

Each level consists of 4 sessions - 1 Foundation Session + 3 Practice Sessions.

E.g. Booking Sequence for New Students with No Prior Experience

- 1. Beginner 1 Foundation Session
- 2. Beginner Practice Session x3
- 3. Beginner 2 Foundation Session
- 4. Beginner Practice Session x3
- 5. Beginner Proficiency Test (non-chargeable)



Course Progression

There are a total of **6 progressive levels** (24 sessions) to complete the Robotics Certificate Programmes.

- Beginner 1 Level (4 sessions)
 Beginner 2 Level (4 sessions)
 - Beginner Proficiency Test (non-chargeable)
- 3. Intermediate 1 Level (4 sessions)
- 4. Intermediate 2 Level (4 sessions)

Intermediate Proficiency Test (non-chargeable)

- 5. Advanced 1 Level (4 sessions)
- 6. Advanced 2 Level (4 sessions)

Advanced Proficiency Test (non-chargeable)

Course Proficiency Test & Certification

A Course Proficiency Test is administered after completion of Beginner, Intermediate, and Advanced course levels to ascertain suitability for progression. Certificates will be awarded upon successful passing of the proficiency test.



April 2022 – Foundation Sessions + Proficiency Test Sessions

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
28	29		31	Proficiency Test 3.30pm to 6pm	2	3
4 Beginner 1 3.30pm to 6pm Beginner 2 6pm to 8.30pm	5 Intermediate 1 3.30pm to 6pm Intermediate 2 6pm to 8.30pm	6 Advanced 1 3.30pm to 6pm Advanced 2 6pm to 8.30pm	7	Proficiency Test 3.30pm to 6pm	9	10
Beginner 2 3.30pm to 6pm Beginner 1 6pm to 8.30pm	12 Intermediate 2 3.30pm to 6pm Intermediate 1 6pm to 8.30pm	13 Advanced 2 3.30pm to 6pm Advanced 1 6pm to 8.30pm	14	15 Good Friday	16	17
18 Beginner 1 3.30pm to 6pm Beginner 2 6pm to 8.30pm	19 Intermediate 1 3.30pm to 6pm Intermediate 2 6pm to 8.30pm	20 Advanced 1 3.30pm to 6pm Advanced 2 6pm to 8.30pm	21	22 Proficiency Test 3.30pm to 6pm	23	24
25 Beginner 2 3.30pm to 6pm Beginner 1 6pm to 8.30pm	26 Intermediate 2 3.30pm to 6pm Intermediate 1 6pm to 8.30pm	27 Advanced 2 3.30pm to 6pm Advanced 1 6pm to 8.30pm	28	29 Proficiency Test 3.30pm to 6pm	30]

April 2022 – Beginner Practice Sessions

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
28	29	30	31	1	2	3
					1pm to 3.30pm	1pm to 3.30pm
					3.30pm to 6pm	3.30pm to 6pm
4	5	6	7	8	9	10
	3.30pm to 6pm	3.30pm to 6pm	3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
	6pm to 8.30pm	6pm to 8.30pm	6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
11	12	13	14	15	16	17
	3.30pm to 6pm	3.30pm to 6pm	3.30pm to 6pm	Good Friday	1pm to 3.30pm	1pm to 3.30pm
	6pm to 8.30pm	6pm to 8.30pm	6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
18	19	20	21	22	23	24
	3.30pm to 6pm	3.30pm to 6pm	3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
	6pm to 8.30pm	6pm to 8.30pm	6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
25	26	27	28	29	30	1
	3.30pm to 6pm	3.30pm to 6pm	3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
	6pm to 8.30pm	6pm to 8.30pm	6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm

Can't find a suitable class for your kid? Reach out to us, let's work something out. If you are unable to find the session on our booking page, it is probably because the class is already full!

April 2022 – Intermediate Practice Sessions

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
28	29	30	31	1	2	3
					1pm to 3.30pm	1pm to 3.30pm
					3.30pm to 6pm	3.30pm to 6pm
4	5	6	7	8	9	10
3.30pm to 6pm		3.30pm to 6pm	3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
6pm to 8.30pm		6pm to 8.30pm	6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
11	12	13	14	15	16	17
3.30pm to 6pm		3.30pm to 6pm	3.30pm to 6pm	Good Friday	1pm to 3.30pm	1pm to 3.30pm
6pm to 8.30pm		6pm to 8.30pm	6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
18	19	20	21	22	23	24
3.30pm to 6pm		3.30pm to 6pm	3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
6pm to 8.30pm		6pm to 8.30pm	6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
25	26	27	28	29	30	1
3.30pm to 6pm		3.30pm to 6pm	3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
6pm to 8.30pm		6pm to 8.30pm	6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm

April 2022 – Advanced Practice Sessions

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
28	29	30	31	1	2	3
					1pm to 3.30pm	1pm to 3.30pm
					3.30pm to 6pm	3.30pm to 6pm
4	5	6	7	8	9	10
3.30pm to 6pm	3.30pm to 6pm	-	3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
6pm to 8.30pm	6pm to 8.30pm		6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
11	12	13	14	15	16	17
3.30pm to 6pm	3.30pm to 6pm		3.30pm to 6pm	Good Friday	1pm to 3.30pm	1pm to 3.30pm
6pm to 8.30pm	6pm to 8.30pm		6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
18	19	20	21	22	23	24
3.30pm to 6pm	3.30pm to 6pm		3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
6pm to 8.30pm	6pm to 8.30pm		6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm
25	26	27	28	29	30	1
3.30pm to 6pm	3.30pm to 6pm		3.30pm to 6pm		1pm to 3.30pm	1pm to 3.30pm
6pm to 8.30pm	6pm to 8.30pm		6pm to 8.30pm		3.30pm to 6pm	3.30pm to 6pm

Can't find a suitable class for your kid? Reach out to us, let's work something out. If you are unable to find the session on our booking page, it is probably because the class is already full!

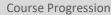


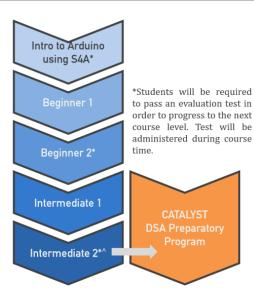


Inventor Certificate Programme (Arduino Microcontroller)

Inventor Certificate Programme is developed by Nullspace to develop electronic and microcontroller proficiency in kids. With Arduino, students will learn to create their own electronic projects, starting with simple components like LEDs, buzzers, and potentiometers. Upon completion of the Intermediate 2 level, students will then be able to progress to the Catalyst Innovation Project Mentoring Programme. Certificates will be awarded upon successful passing of evaluation test at the end of the Intro to Arduino, Beginner 2, and Intermediate 2 levels.

Course Information	
Recommended Age	Ages 10 and above (Primary 4 and higher levels)
Class Duration	2.5 hours per session
Class Size	Max. 5 Students to 1 Instructor
Course Fees	 Lessons are charged according to our course package prices 1 Course Level (4 sessions) - \$420 or 2 Course Levels (8 sessions) - \$800 (5% off) or 6 Course Levels (24 sessions) - \$2280 (10% off)





^Arduino Inventor : Intermediate 2 is pre-requisite for CATALYST DSA Preparatory Program Each level consists of 4 sessions of 2.5 hours.

There are a total of **5 progressive levels** (20 sessions) to complete the Inventor Certificate Programmes.

- 1. Intro to Arduino using S4A* (4 sessions)
- 2. Beginner 1 Level (4 sessions)
- 3. Beginner 2 Level* (4 sessions)
- 4. Intermediate 1 Level (4 sessions)
- 5. Intermediate 2 Level* (4 sessions)

* A **proficiency test** is administered at the end of the Intro to Arduino, Beginner 2 and Intermediate 2 level to ascertain suitability for progression. Certificates will be awarded upon successfully passing the proficiency tests.



Can't find a suitable class for your kid? Reach out to us, let's work something out. If you are unable to find the session on our booking page, it is probably because the class is already full!

April 2022 – Inventor Certificate Programme	April 2022 -	Inventor	Certificate	Programme
---	--------------	----------	-------------	-----------

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
28	29		31	1	2	3
				Beg 2 Session 2 3.30pm to 6pm	Intro Session 2 3.30pm to 6pm	Int 1 Session 2 3.30pm to 6pm
4	5	6	7	8	9	10
				Beg 2 Session 3 3.30pm to 6pm	Intro Session 3 3.30pm to 6pm	Int 1 Session 3 3.30pm to 6pm
11	12	13	14	15	16	17
		10	1	Good Friday	10	17
18	19	20	21	22	23	24
				Beg 2 Session 4 3.30pm to 6pm	Intro Session 4 3.30pm to 6pm	Int 1 Session 4 3.30pm to 6pm
25	26	27	28	29	30	1
				Int 1 Session 1 3.30pm to 6pm	Beg 1 Session 1 3.30pm to 6pm	Int 2 Session 1 3.30pm to 6pm

May to June 2022 – Inventor Certificate Programme

Course Level	Lesson Schedule
Intermediate 1	29 Apr, 6, 20, 27 May 2022 (Fridays), 3.30pm to 6pm*
Beginner 1	30 Apr, 7, 21, 28 May 2022 (Saturdays), 3.30pm to 6pm*
Intermediate 2	1, 8, 22, 29 May 2022 (Sundays), 3.30pm to 6pm*
Intro to Arduino	30, 31 May, 1, 2 June 2022 (Mon to Thurs), 9.30am to 12pm
Beginner 2	30, 31 May, 1, 2 June 2022 (Mon to Thurs), 3.30pm to 6pm
Beginner 1	6, 7, 8, 9 June 2022 (Mon to Thurs), 9.30am to 12pm
Intermediate 1	6, 7, 8, 9 June 2022 (Mon to Thurs), 3.30pm to 6pm
Beginner 2	13, 14, 15, 16 June 2022 (Mon to Thurs), 9.30am to 12pm
Intermediate 2	13, 14, 15, 16 June 2022 (Mon to Thurs), 3.30pm to 6pm
Intermediate 1	20, 21, 22, 23 June 2022 (Mon to Thurs), 9.30am to 12pm
Intro to Arduino	20, 21, 22, 23 June 2022 (Mon to Thurs), 3.30pm to 6pm

*Note that there is no class on 13th, 14th, 15th May 2022 (break for Mid-Year Examinations).



LEGO Robotics Competition Training Programme

Nullspace Centre for Robotics Learning (C4RL) takes part in approximately 3 robotics competitions in a year. Students who are enrolled in this training will work in teams of 3-4 members. They will be officially registered in the competition and will represent C4RL. Do note that students cannot represent both their schools and C4RL for the same competition.

Course Information	
Pre-Requisite	Completion of Robotics Certificate Programme (SPIKE Prime) – Advanced 2
Class Duration	2.5 to 3 hours per session
Programme Fees	Training Fees (charged at a rate of \$40 / hour) + Registration Fee (based on competition) Existing Course Packages can be used to offset programme fees at a rate of \$100 per session.
Training Programme Duration	 Depending on Competition Type & Competition Timeline: First LEGO League Singapore (FLL): Approx. <u>15 – 16 sessions</u> from Nov to March IDE Series: Approx. <u>4 sessions</u> from March to May National Robotics Competition (NRC): Approx. <u>15 – 16 sessions</u> from June to Sept



CATALYST Innovation Project Mentoring Programme

CATALYST is a small project mentoring class where students will conceptualise and develop their own creations and prototype. Students will also be taught project documentation and project management skills. The programme is developed by Nullspace to develop the next generation of young innovators and change-makers. Part of our goal is to help students get admitted to the school of their choice through the Direct School Admission Secondary (DSA-Sec) exercise. Students in this program will be personally mentored by our instructors to develop science and electronics projects of their choice, and to learn skills such as programming, 3D printing, and mechanical design.

Course Information	
Pre-Requisite	Completion of Inventor Certificate Programme (Arduino Microcontroller) – Intermediate 2
Class Duration	2.5 per session
Programme Fees & Duration	Depends on complexity of selected Project – Minimally 5 sessions
	Lesson Fees (5 Sessions) (\$500) + Project Fee (includes costs of materials) (\$75)
	Additional sessions required to complete project will be charged at \$100 per session.
	Existing Course Packages can be used to offset programme fees at a rate of \$100 per session.

Can't find a suitable class for your kid? Reach out to us, let's work something out. If you are unable to find the session on our booking page, it is probably because the class is already full!

April 202	22 – LEGC	Robotics	Competition	Training	& CATALYST	Innovation P	roject Mentoring	Programmes

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
28	29	30	31	1	2 IDE Training (Sat) Session 1 9.30am to 12pm CATALYST Project Mentoring 1pm to 3.30pm	3 IDE Training (Sun) Session 1 9.30am to 12pm CATALYST Project Mentoring 1pm to 3.30pm
4	5	6	7	8	9 IDE Training (Sat) Session 2 9.30am to 12pm CATALYST Project Mentoring 1pm to 3.30pm	10 IDE Training (Sun) Session 2 9.30am to 12pm CATALYST Project Mentoring 1pm to 3.30pm
11	12	13	14	15 Good Friday	16 IDE Training (Sat) Session 3 9.30am to 12pm CATALYST Project Mentoring 1pm to 3.30pm	17 IDE Training (Sun) Session 3 9.30am to 12pm CATALYST Project Mentoring 1pm to 3.30pm
18	19	20	21	22	23 IDE Training (Sat) Session 4 9.30am to 12pm CATALYST Project Mentoring 1pm to 3.30pm	24 IDE Training (Sun) Session 4 9.30am to 12pm CATALYST Project Mentoring 1pm to 3.30pm
25	26	27	28	29	30 No Training due to Labour Day Hols CATALYST Project Mentoring 1pm to 3.30pm	No Training due to Labour Day Hols CATALYST Project Mentoring 1pm to 3.30pm

Upcoming Competition Training Programmes

Competition	Qualification Details
	Training for the National Robotics Competition (NRC) will commence in June 2022.
NATIONAL ROBOTICS COMPETITION	To be shortlisted for the Competition Training Programme, students should aim to complete the Robotics Certificate Programme (SPIKE Prime) before May 2022 .
NRC 2022 RoboMission (Elementary)	Competition invitations will be sent out 1 month before the start of the training programme via email. Students who qualify for the competition training programme will be automatically added into the Competition Mailing List. Do keep a lookout for the email!
	For students who are on-track to completing the Robotics Certificate Programme before the stipulated deadline, and are interested in joining the Competition Training Team, do drop us an email with the header "Request to opt-in for Competition Mailing List" to receive the competition invite.

Can't find a suitable class for your kid? Reach out to us, let's work something out. If you are unable to find the session on our booking page, it is probably because the class is already full!





7

CENTRE FOR ROBOTICS LEARNING SCHEDULE (MARCH INTAKE)

Data Analyst Certificate Programme (Python)

Our newly revamped Data Analyst Certificate Programme is a weekly programme that will introduce students to the popular textbased Python programming language – the #1 most popular programming language in 2022. Through the 40-hour structured programme (2.5 hours x 4 sessions x 6 levels), students will learn the fundamentals of python programming and be exposed to higher-order skillsets such as object-oriented programming and designing graphical user interfaces through engaging activities like password decryption, treasure hunt and more.

Course Information	
Recommended Age	Ages 11 and above (Primary 5 and higher levels)
Class Duration	2.5 hours per session
Class Size	Max. 5 Students to 1 Instructor
Course Fees	Lessons are charged according to our course package prices 4 sessions - <u>\$420</u> or 8 sessions - <u>\$800</u> (5% off) or 24 sessions - <u>\$2280</u> (10% off)
Class Locations	C4RL-WEST (Rochester) / C4RL-EAST (Siglap) / Home Based Learning via Zoom

Course Schedule	Friday, 6pm to 8.30pm	Saturday, 9.30am to 12pm	Sunday, 9.30am to 12pm		
	11/3/2022	12/3/2022	13/3/2022		
Python 101	18/3/2022	19/3/2022	20/3/2022		
(4 sessions)	25/3/2022	26/3/2022	27/3/2022		
	1/4/2022	2/4/2022	3/4/2022		
	8/4/2022	9/4/2022	10/4/2022		
Python 102	15/4/2022*	16/4/2022	17/4/2022		
(4 sessions)	22/4/2022	23/4/2022	24/4/2022		
	29/4/2022	30/4/2022	1/5/2022		
	6/5/2022	7/5/2022	8/5/2022		
Python 201	13/5/2022	14/5/2022	15/5/2022		
(4 sessions)	20/5/2022	21/5/2022	22/5/2022		
	27/5/2022	28/5/2022	29/5/2022		
	3/6/2022	4/6/2022	5/6/2022		
Python 202	10/6/2022	11/6/2022	12/6/2022		
(4 sessions)	17/6/2022	18/6/2022	19/6/2022		
	24/6/2022	25/6/2022	26/6/2022		
	1/7/2022	2/7/2022	3/7/2022		
Duth an 201	Break one week for Youth Day & Hari Raya Haji				
Python 301	15/7/2022	16/7/2022	17/7/2022		
(4 sessions)	22/7/2022	23/7/2022	24/7/2022		
	29/7/2022	30/7/2022	31/7/2022		
	25/11/2022	26/11/2022	27/11/2022		
Python 302	2/12/2022	3/12/2022	4/12/2022		
(4 sessions)	9/12/2022	10/12/2022	11/12/2022		
	16/12/2022	17/12/2022	18/12/2022		

*No class on 15th April 2022 due to Good Friday Public Holiday. Make-up session will be arranged on either 16th or 17th April.