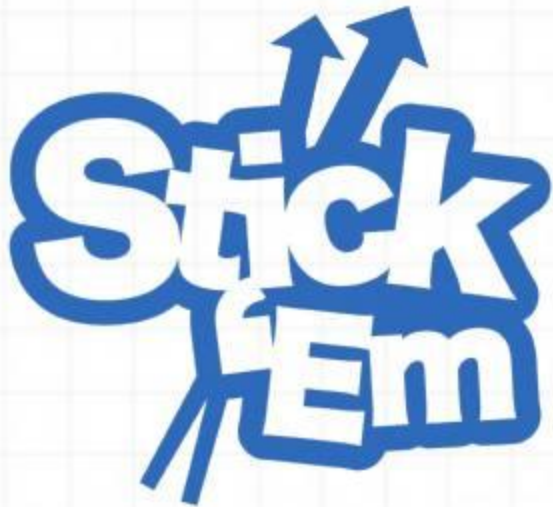




The 21st Century STEAM Kit

Made with ❤️ in Singapore

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1. Company Profile

**Stick 'Em is an award winning EdTech solution from Singapore,
focused on making STEAM education more accessible to all**



**'Nobel Prize for students': Singapore startup wins
US\$1 million in seed funding after clinching top award**



THE STRAITS TIMES **Tatler** **Forbes** **THE BUSINESS TIMES**



**Our work spans across 18
countries, impacting 30,000
students and 3200+ teachers**





Singapore

60+ MOE schools (1 in 5 schools) use Stick 'Em

Stick 'Em is just a *tool*, how schools use it is dependant on their own needs. Schools use Stick 'Em to align to the E21CC strategic masterplan by the Ministry of Education, and we help them align faster with Teacher Capacity Building workshops and customised lesson materials



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Innovation club @ Raffles Girls Secondary



STEM ALP Programme @ Rulang Primary



Recycling ALP @ Zhenghua Primary



Post Exam Activities @ Bukit View Primary



Indonesia

40+ schools across Indonesia use Stick 'Em

The school uses Stick 'Em for science and computing classes, STEAM competitions, and organises their own regional teacher trainings to help upskill nearby schools in STEAM methodology



Students use Stick 'Em for a wide range of subjects

1. **Engineering & Technology (Rekayasa dan Teknologi)**
2. **Sustainable Lifestyle (Gaya Hidup Berkelanjutan)**
3. **Local Wisdom (Kearifan Lokal)**

Ora Et Labora students using Stick 'Em in classroom

Vietnam

Has been conducted in both community and private schools. Currently deployed in 50+ schools under a government project before nationwide rollout



India

Reaching schools in Mumbai and Bangalore with local partners + teacher capacity building in Mumbai



Thailand

Stick'Em is used in both private schools and military run thailand-myanmar border schools



Cambodia

Teacher capacity building workshops have been conducted, Stick'Em is used in private schools of all ranges including an orphanage





Uganda, Africa

Small Village School 400km from the capital

With Stick 'Em's low-cost hardware and online materials + teacher training, the school was able to set up a coding & robotics club. Half a year later, they ranked #1 in the country

ISCC

SCHOOL RANKINGS

	Kigali High School	#1
	Nasirya SS Bwengeru	#2
	St. Mary's College Kiute	#3
	Royal College Namugongo	#4
	Mt St Henry's High School	#5
	God's way High School Mugaru	#6
	Mango Senior School	#7
	Light Academy Secondary	#8
	Pine International School	#9
	St Peter's S.S Nasirya	#10

POWERED BY: GREAT ENTREPRENEURSHIP

The image shows a screenshot of the ISCC School Rankings, with Kigali High School at the top. Below the rankings are two photographs: one of students standing behind a wooden robot on a table, and another of a teacher pointing at a screen displaying a coding program while a student watches.

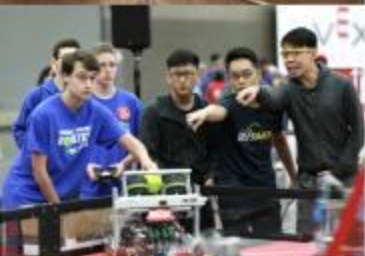


Sabah, Malaysia

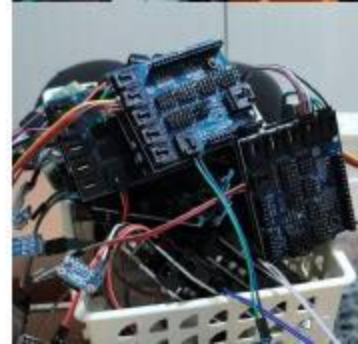
Floating Village school for stateless children

Stick 'Em was implemented in a floating village in Sabah, Malaysia. Despite a lack of proper classrooms, strong internet and trained STEAM teachers, the students were able to use Stick 'Em





We grew up as tinkerers, makers, robotics world champions and entrepreneurs, starting this company when we were 17



2. What We Do

Systemic Challenges ASEAN MOEs struggle with:

Expensive/Complex tools

Detached from classroom usage/subjects



Many STEAM kits like the Arduino and LEGO work for well equipped international/private schools, but what about the other 90% of schools?



Teacher Capacity Shortage

Schools can't implement long term programmes



Which tools to use?
What's within budget?
Can my students do this?
How does this fit into curriculum??



"Let's just keep it to 10 students"

Teachers are not trained in STEAM, and don't have the capacity to figure out high quality programmes that can scale. This leads to teacher anxiety and poor learning outcomes

We help governments & partners scale STEAM education in an **accessible and affordable way, so that *every single student* has equal access to great learning opportunities**

**Low-cost
Hardware STEAM kit**



**Curriculum Aligned
Lesson Materials**



**Capacity Building
For all Teachers**



Stick 'Em is a 3 part solution for schools!

Our Low-Cost Hardware Kit, aka **Stick 'Em Classroom Set**

Enables **any** teacher to integrate hands-on learning into classrooms

Contains Electronics board, motors, chopsticks and geometric connectors

Used across multiple subjects, not just ICT & Robotics

1 Classroom Set = 10 individual kits/robots

Engages up to **40 students** (2-4 students per group)

Plastic bins make it easy to pack up

Lightweight and portable

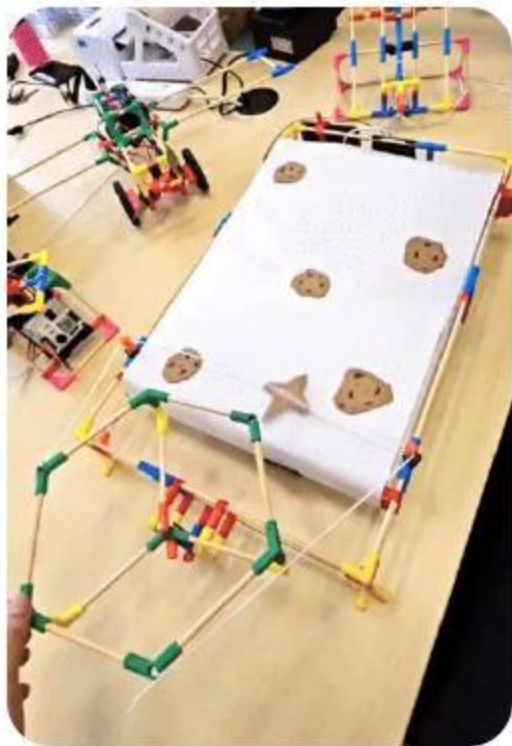


One Classroom Kit

Enables *hundreds* of different
Lessons and projects within a classroom



All of these can be built with the same Classroom Set



DIY Racing game



Cable Car



Harmonic Drawing Robot

Stick 'Em Academy

Ready-to-use Lesson Materials

- Online portal with 100+ lessons & activities
- Co-developed with MOE SG teachers
- Reduces teacher prep time to 10 minutes
- 21st Century Skills centred, Classroom curriculum aligned!



Helps integrate 21st Century aligned hands-on learning into the curriculum

The slides give teachers a **higher starting point** with built-in prompts and facilitation guides



Science

Elastic Potential
Energy (Catapults)



Languages

Dragon Boat
Racing Robots



Social Studies

Futurising
Cultural Symbols



Geography

Coastal Protection
Strategies

Academy allows schools to integrate hands-on learning, both inside and outside curriculum

Curriculum based Academic topics

Extracurricular, Non-Academic activities



Stick 'Em works well even in public schools because teachers know how to use it



We build teacher confidence via 3 hour **STEAM-AI PD for Teachers**

Our **3 hour workshop** has helped 3500+ teachers from different departments understand how STEAM can be integrated into their classrooms with 21st Century Skill alignment

Teachers are guided to create their own activities within departments, and walk away with ready-to-use ideas



How was the overall learning experience through the workshop?

163 responses



- Develops confidence in STEAM ✓
- Links 21CC to classroom context ✓
- Build robots & crazy contraptions ✓
- Peer-based exchanges & Gallery walk ✓

To avoid becoming a "for fun STEAM workshop", teachers actually design their own lesson plans and test it in real time with other teachers



This leads to actual sustained classroom usage where it matters!

Common themes heard from teachers

Mind blowing materials that can make students easily be more creative and develop their 21st century skills

Very insightful, confident to have students to join competitions organized by STEP and others. Way forward for us to fully 100% engaged in classroom.

This kind of activity surely engage students and demonstrate their skills and creativity to solve real life problems.

Can be use in many subjects as it offers fun way to learn and integrate robotics in a less expensive way.

With proper guidance and enough resources we can include all students to explore their ability in problem solving skills

A lot of useful resources in academy and very eye opening for designing lessons for student

3. Why Schools Love Stick 'Em

Historically, schools had to choose between:

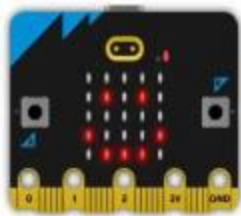
Low-cost, but complex tools that require specialised teachers

Tools like Arduino, Microbit are low-cost, but require a teacher in the school that has the knowledge, and this teacher usually struggles with curriculum alignment too!

or

High quality, but expensive and limited STEAM kits for selected students

Kits like LEGO, mBot, VEX Robotics are easy to use, but due to high costs, schools can only make programmes accessible to a small group of selected students



Stick 'Em is the accessible middle ground solution

Simple curriculum classroom activities

Run Hands-on
Science, Math, and
Language classes



Extracurricular Robotics, Competitions & Innovation Programmes

Robotics comps, Embedded AI
robots, Makerspaces, Science
Fairs and more

All using the same STEAM infrastructure!

Schools are also moving ahead of the curve, because Stick 'Em has **AI & Machine Learning** lessons that tap on a kit they already have



No need for an AI specialist teacher, or \$10k robotics systems

Schools & Partners are able to run Competitions and events in *weeks* instead of months



Indonesia



Singapore



Vietnam

1 hour learning curve + low-cost of set up + No Playfield needed
= More Frequent events for students!

Stick 'Em reduces the barriers to adoption, so students/teachers can join in with no prior knowledge

Teacher Training at Scale

Every teacher can now be involved in hands-on learning, not just science and computing teachers

Stick 'Em enables a whole-school approach to 21st Century Skill development



225 pax, 6 schools training in Bogor



700 pax, 2 sessions of 350 pax for 20 schools

Here's actual feedback from non-STEAM teachers & ministries

"It moves beyond traditional teaching, allowing you to embrace a trial-and-error mindset that fosters true creativity."

JSS, Ministry of Education, Brunei

"Very easy to use and very kid friendly. Students can learn coding in few minutes."

Sekolah Rendah Haji Tarif

"Mind blowing materials that make students more creative and develop their 21st century skills."

Sekolah Rendah Dato Mohd Yassin

"It'll change your perception of robotics to something that is actually doable."

Sekolah Rendah Lumut

"Sustainable tool kits. Coding systems are preset. So STEAM is not that mathsy."

Pusat Tingkatan Enam Sengkuring

"Nurturing higher-order thinking skills, creativity, and problem-solving abilities among students."

Sekolah Menengah Rimba

"Can be applied to all subjects — not only STEAM."

Department of Schools, Ministry of Education, Brunei

"It makes STEAM interdisciplinary in lessons much more easier and visible."

Maktab Sains

"Everyone is actually ready. It is a matter of when to start — before the future comes."

Sekolah Rendah Bengkurong

"Common misconception: Robotics is hard. But today, it became a myth."

Teacher, Indonesia

4. Tools for Partners & Schools

- Design and construct functional models using available materials to solve defined problems
- Develop computational thinking through logical sequencing, pattern recognition, and problem decomposition
- Work collaboratively on projects that connect learning to community and environmental challenges

Analytics Dashboard (dashboard.stickem.sg)

Gain better insights into classroom usage activity, lessons taught & completed, average time spent and more via our free dashboard platform!



Vibecoding Platform (vibecode.stickem.sg)

For students to experiment with gen AI, allowing them to create customised web apps that can interface with the real world via Stick 'Em Hardware

STICK 'EM TOOLS

STICK 'EM DEVELOPER TOOLS

Stick 'Em Vibe Coding Showcase Gallery

Here are some fun web apps made by other people. Try them out or make your own by clicking Create My Own Web App.

Heads up — these are works in progress. Every web app here was vibecoded in a workshop, so expect a few rough edges and the occasional bug. Don't stop here, though. Create My Own Web App, dream up something weirder, and build it. A snake that hisses at your cat? A hat that tips when you say thank you? An octopus that dances to your playlist? Go for it — the only limit is your imagination.

HUMANOID ROBOT CONTROL

Wave your arms and your chopstick. Stick 'Em humanoid waves back. Three servo drive the head and shoulders, as the whole little robot capers playfully across your Bluetooth.

WORK PROGRESS | 5 MINUTES | 100% BATTERY

TICKING CLOCK

Turn your Stick 'Em board into a real ticking clock. Every second the servo arm flicks forward and the piezo buzzer beeps. When time hits zero, the servo spins and the buzzer should also beep.

WORK PROGRESS | 5 MINUTES | 100% BATTERY

F1 HAND WHEEL

Build a Stick 'Em car with two (or four) motorised wheels. Close both fists to floor it, tilt your hands like a steering wheel, and your very own chopstick F1.

WORK PROGRESS | 5 MINUTES | 100% BATTERY

CREATE MY OWN WEB APP

Download the workshop instructions package. Drop the file into Claude Code or Codex and your AI assistant will help you vibe-code your own Stick 'Em project from scratch.

WORKSHOP KIT | CLICK TO DOWNLOAD

HUMANOID ROBOT CONTROL

Wave your arms and your chopstick. Stick 'Em humanoid waves back. Three servo drive the head and shoulders, as the whole little robot capers playfully across your Bluetooth.

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F1 HAND WHEEL

Build a Stick 'Em car with two (or four) motorised wheels. Close both fists to floor it, tilt your hands like a steering wheel, and your very own chopstick F1 racer cruises off and right across the track.

WORK PROGRESS | 5 MINUTES | 100% BATTERY

Voice Controlled Robot Pet

Build a four-legged robot pet on your Stick 'Em board. Say "Hi", "Wave", or "Roar" and you can see and hear the robot's movements. It's a little noisy, but it's a lot of fun.

WORK PROGRESS | 5 MINUTES | 100% BATTERY

THEREMIN CONDUCTOR

Wave both hands in the air and you can hear a Stick 'Em four-legged robot pet play music. Left hand plays, right hand plays. Quite possibly the world's first robot conductor.

WORK PROGRESS | 5 MINUTES | 100% BATTERY

PUPPET CONTROLLER

Build a Stick 'Em puppet on your board. Wave your hands and you can see and hear the puppet's movements. It's a little noisy, but it's a lot of fun.

WORK PROGRESS | 5 MINUTES | 100% BATTERY

ROCK PAPER SCISSORS BOT

Build a Stick 'Em board with three servos. Rock, paper, scissors. Wave your hand up or down. Close both fists to floor it, tilt your hands like a steering wheel, and your very own chopstick F1.

WORK PROGRESS | 5 MINUTES | 100% BATTERY

MUSIC RIFFING FLOWER

Build a Stick 'Em board with two servos. Wave your hand up or down. Close both fists to floor it, tilt your hands like a steering wheel, and your very own chopstick F1.

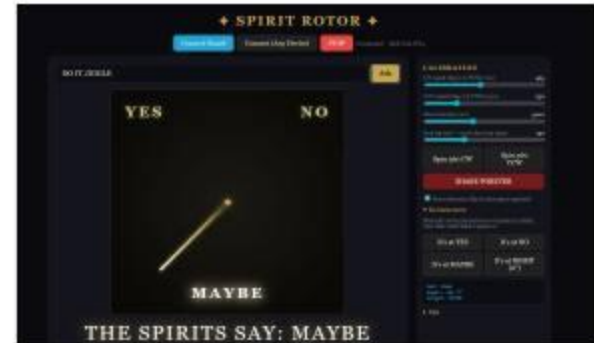
WORK PROGRESS | 5 MINUTES | 100% BATTERY

COMPUTER FEATURE FILTER

Build a Stick 'Em board with two servos. Wave your hand up or down. Close both fists to floor it, tilt your hands like a steering wheel, and your very own chopstick F1.

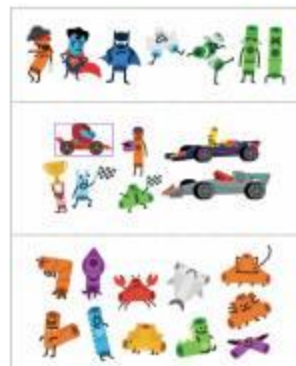
WORK PROGRESS | 5 MINUTES | 100% BATTERY

Use your voice to control a physical Stick 'Em Robot Dog, a F1 car steering wheel, or make a chopstick flower that reacts to music volume!



Digital Assets & Materials

To make it easy for our partners to spread the word, we've developed a library of ready-made digital assets, from event posters and social media graphics to school-facing information materials on Canva!



5. Strategic Opportunities

Here are some opportunities we would love to explore:

Co-branded STEAM kit

Co-brand the Stick 'Em Classroom Kit to be part of your own offerings and leverage on existing school networks



Nationwide Events

Organise Innovation Challenges, Robotics Competitions, Science Makerfares at scale with Stick 'Em schools, because the barrier to entry is so low



Train-the-Trainer Programmes

Build capacity of thousands of teachers with your own fleet of trainers, which we can train via a train-the-trainer model to create Master Trainers across districts and regions



We're always on the lookout for large scale strategic partnerships

What we're looking for

- ✓ Fast-moving partners excited about advancing STEAM education
- ✓ Committed to piloting across schools & regions before Q3
- ✓ Already established in schools, leveraging existing networks
- ✓ Able to run or build capacity for teacher trainings independently
- ✓ (For public sch sector) Active relationships with MOE / DepEd

and not looking for

- No endless MOUs/MOAs and fancy signing ceremonies
- No 6-month evaluation cycles, we move fast and expect the same
- Partners who are ready to invest in a pilot, not expect freebies

Fit the bill? Let's work together!



Uganda



Vietnam



Thailand



Cambodia

Let's work together to give students a better chance at tackling the future.



Malaysia



Hong Kong



Indonesia



Brunei