

STEM LAB

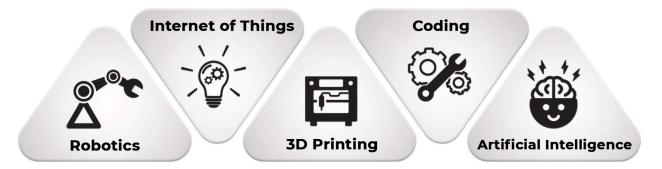
The Key to Innovation

To overhaul education and inculcate the spirit of innovation in children, we setup STEM lab in schools. The idea is to acquaint students with various innovative technologies so that they can come up with creative solutions to social concerns.



LAB INCLUDES

The lab will be equipped with the following 5 technologies



HOW THE LAB WORKS?



WHAT TECHNOLOGY PARTNER WILL PROVIDE

- Lab Ambience Blue Print
- Curriculum and Teaching Manual
- Activity Sheet and charts
- Hands-on activity, learning kits and supporting consumables
- Trainers

Trainers profile

- 1 STEM accredited trainers
- 2 experienced in the industry more than 2 years
- 3. diversived knowledge in 5 technology

REQUIREMENT FROM SCHOOL

For the smooth functioning of lab and to engaging the students of all standards school shall provide the following

- A well built space of 1500 sq.ft
- Storage and electrical connections at each section
- Internet and projector facilities
- Computers for a batch of students at each section as per the number of students
- The point of contact

STUDENTS OUTCOME

- Strong Knowledge in Block Programming
- Will design solutions for any problem statement
- Will participate in Robotics and Coding competitions
- Strong Knowledge in Block Programming
- Will design solutions for any problem statement
- Strong knowledge in **Development Boards**
- Will design Miniature Parts using 3D printer



LAB AMBIENCE/ SETUP



OUR STEM CLIENTS



Chinmaya Vidyalaya MHSS, Trichy



P.S.B.B.SSS Chennai



Kumbakonam



Sri Matha MHSS P.S.Senior.Sec.School Chennai



Gurukulam MHSS Chennai



Akshaya Academy MHSS, Coimbatore



Adhyapana School CBSE, Swami Dayananda Madurai



MHSS, Tiruvarur



GMGHSS, Manachanallur



GMBHSS, Thuvarankurichi & Many More

STEM CURRICULUM

The following curriculum is designed based on Story Board approach following the CBSE, NCERT syllabus

Grade LKG

Theme: Ramya's Day out

- Comparing
- How big am I?
- Animal Habitats
- Sequencing
- Patterns

Grade UKG

Theme: Siddhu's adventure at home

- Sequencing & Coding
- Longer VS Shorter
- People Who Help Us
- Shapes & Lines
- Data Handling

Grade 1

Theme: Sweet Home - Zara's Inspiring habits

- Start With Scratch
- Everyday Objects
- Building Come to Life
- Natural & Human-Made
- Data Handling

Grade 2

Theme: Patterns - what is long what is sound?

- More with Scratch
- Fun with Images
- Picture Perfect
- From Here to There!
- Reduce, Reuse, Recycle
- Land, Waters,& Amphibians

Grade 3

Theme: Nithisha's journey - Innovating wild life converstion

- Travelling Around
- Pictures Speak (AI)
- Animals & Habitats
- Lost & Found
- Bricks (Guide to Engineering)

Grade 4

Theme: Tina's journey of engineering and empowerment

- Click & Calculate
- Simple Machines
- Slopes & Angles
- Electro 101
- My Circuit

Grade 5

Theme: Exploring the cosmos and build the sustaniable world

- Rise of Avalonis
- Ohm My Resistors
- Light up the LED'S
- Cortex Motor System
- Triggering with Sensors
- Gears of Mechanism

Grade 6

Theme: Agriculture Artist - A story of Innovation & community impact

- Ideation
- Design Thinking
- Code Blocks
- Tinker CAD Design
- Physical Computing
- Capstone Project

Grade 7

Theme: Chilling innovations - Empowering community in yakut

- Introdution to Coding
- Application Based Robots
- Interfacing Multiple Sensors
- 3D Designs & AI
- Capstone Project

Grade 8

Theme: The salt water innovator - How ravi transformed agriculture in lalpuram

- Hardware and Controllers
- Control & Iteration Concepts
- Mobile App Development
- Introdution to IOT & Data Aquisition

Grade 9, 10, 11

Theme: the luminary scientist - Oliver's journey of curiosity & innovation

- Introdution to python
- Coding for Drones
- Build a Satellite
- Internet of Things
- Bionic Robots
- Capstone Project



Periodic Training Information

We provide training from LKG to 11th standard students of all section as per the time table designed by the school

Standard	Training Hrs (Per Week)		Capstone project	
	Live	Virtual	#of projects	Duration
LKG	45 min		18	9
UKG	45 min	AE	1.5	-78
1	45 min	₽.	5 m	3
2	40 min	•	-	=
3	90 min	•	7 -	3 — X
4	90 min	24	1	2 Classes
5	90 min	<u> </u>	2	5 Classes
6	90 min	2 Classes / Per year	2	5 Classes
7	90 min	3 Classes / Per year	3	7 Classes
8	90 min	3 Classes / Per year	3	7 Classes
9	90 min	4 Classes / Per year	3	7 Classes
10	90 min	3 Classes / Per year	2	5 Classes
11	90 min	5 Classes / Per year	2	5 Classes

Payment Information

The overall cost for setting up the lab including:

- Interactive Display and Accessories
- Activity sheets and Hands on kits
- Work books
- Access to propel.study E-learning platform
- STEM kits
- Competition and Exhibition support

Rs. 3500/student per academic year

*minimum number of students required: 600

STUDENTS ACHIEVEMENT



Outstanding Achiever Award



Water Quality Tester- Prototype International Robotics Winners





Governer Recognition



State Robotics winners



Vaazhvatharam - Social Innovation



Prototype of Egg Cutter



Prototype of Pet Bot



Autonomous Drone Recognition

STEM ACCREDITATION







STEM Accredited Organisation, Curriculum and Instructors