

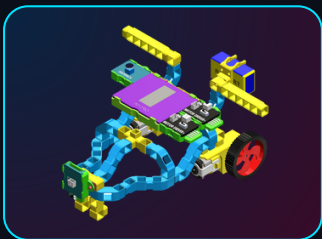


As Seen on

**SHARK
TANK
INDIA**

CURRICULUM FOR SUMMER OF INNOVATION

FOR AGES 4-16



ROBOTICS



CODING



AI TOOLS



3D DESIGN

A Hands-on summer program introducing students to Robotics, Coding, AI Tools, and 3D Design. Designed to build creativity, logical thinking, and problem-solving skills through fun, practical learning.



STEM.org
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EDUCATIONAL EXPERIENCE ✓



SUMMER OF INNOVATION

4-8

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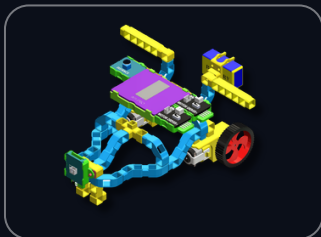
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SR NO	PROJECT NAME	PROJECT DESCRIPTION	LEARNING OUTCOMES	ALIGNMENT TO STEM SYLLABUS
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ROBOTICS & ENGINEERING (ROBOTIC KIT)



Students build a mini see-saw to learn how balance works between two sides based on weight.

- Building a simple machine
- how balancing and weight distribution works

- Balance & gravity
- Simple machine principles
- Structure design
- Proportions & ratios



Students build a simple model that shoots a small ball using rubber band force. They learn how motion works when pressure is applied.

- Learn about rubber band energy & force
- Every action has an equal and opposite reaction

- Construction & design
- Kinetic Motion
- Measurement, angles



A light-based model that creates shadows on a surface.

- Learns about light and shadow
- About Power & Electricity
- Understands circuit basics
- How does LED work?
- How do projectors work?

- Light properties
- Projector technology
- Circuits
- Light
- Electricity

3D DESIGNING (USING 3D PEN)



Students will place a rectangle for the base and add raised text (their name) on it to create a simple name tag.

- Learn how to work with basic shapes like rectangles.
- Understand how to add text to a 3D object.
- Develop skills in arranging and resizing objects.

- Shape formation.
- Text manipulation in 3D space.
- Basic design structure.
- Symmetry and spacing.



Students will build basic shapes such as cubes and cylinders and stack them to build a toy block tower.

- Learn to manipulate simple shapes (cube, cylinder).
- Develop spatial awareness and fine motor skills.
- Encourage creativity in arranging shapes.

- Understanding basic shapes.
- Using a 3D design tool for construction.
- Building a stable structure.



A 3D model car created using basic shapes.

- Understands wheels and motion
- Learns about 3D shapes - cuboid
- Learn about circles diameter

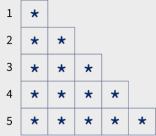
- Geometry - Circles, Cuboids
- Motion
- Design basics

AGES 4-8

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CODING GAMES (PHYSICAL CODING BOT)

7.



PATTERN DETECTIVE

Children identify, extend, and create patterns that build loop foundations.

- Pattern recognition,
- Repetition understanding
- Loop fundamentals
- Prediction skills.

- Patterns
- Loops (repetition)
- Logical reasoning.

8.



TREASURE MAP CODING

Students follow and create map-based multi-step directions like a coding algorithm.

- Sequential instruction making,
- Spatial awareness
- Interpreting symbols
- Complex direction following.

- Mapping
- Sequencing,
- Algorithm design.

9.



MAZE (CHALLENGE MAZE)

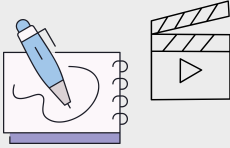
Children solve a slightly challenging maze with dead ends.

- Patience
- Logical thinking
- Confidence.

- Higher-Order Thinking Skills.

AI TOOLS (META DRAWINGS)

10.



CONVERT YOUR DRAWING TO ANIMATION

Students make a drawing on paper and using Meta drawings they animate they're drawing and make it come alive.

- Understands AI
- Builds visual creativity

- Shapes & visuals
- Image generation models
- Design & engineering thinking



SUMMER OF INNOVATION

9-12

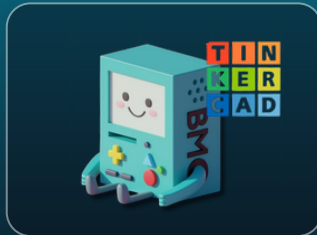
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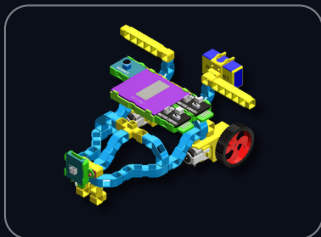
**LAPTOP
REQUIRED**



AI TOOLS



3D DESIGN



ROBOTICS



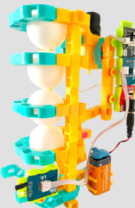
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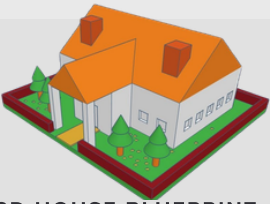
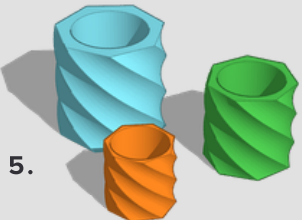
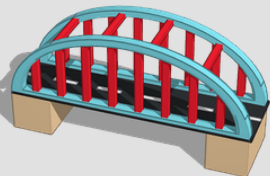


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ROBOTICS WITH SENSORS (OLL ROBOTIC KIT)

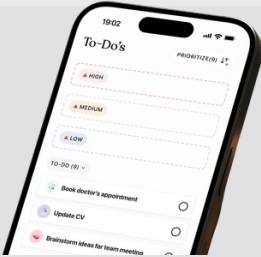
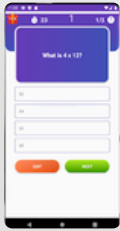
Math Engineering Technology Science	1.  CIRCLE DRAWING ROBOT	Build a robot that moves in a circular path to draw a perfect circle using controlled motor speed and rotation.	- Understands circular motion - Learns about radius - adjust motor speed to control shape accuracy	- Circle Radius - Mechanics of links - Motor rotation - Automation basics
	2.  SENSOR-CONTROLLED BALL VENDING MACHINE	A vending machine that drops balls when a sensor detects an object.	- Learns sensor-triggered output - Understands flow control & dispensing - Encourages automation creativity	- IR sensing - Input-output control - Smart mechanisms
	3.  ADVANCED EDGE-AVOIDING ROBOT	A smarter robot that avoids edges with improved accuracy.	- Learns multi-sensor logic - Understands complex navigation - Builds precision control	- Multi-sensor fusion - Navigation algorithms - Safety robotics

3D DESIGNING (USING TINKERCAD)

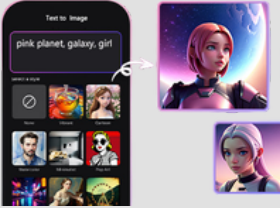
Math Engineering Technology Science	4.  3D HOUSE BLUEPRINT	A 3D model of a house created from a blueprint.	- Learns scaling - Understands blueprint reading - Studies spatial layout	- Measurements - Geometry - Structure design
	5.  PENCIL HOLDER	Students design a pencil holder using shapes and create a printable 3D model.	- Builds digital creativity - Learns 3D shapes - Understands design basics	- Geometry 3D modelling - Spatial skills
	6.  MINI BRIDGE DESIGN	A small, strong 3D bridge demonstrating supportive structure.	- Learns load distribution - Understands structure - Applies mathematical accuracy	- Structure stability - Angles & symmetry - Engineering design

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CODING - APP DEVELOPMENT (USING MIT APP INVENTOR)

7.		Students create a simple app to toggle the flashlight on and off by pressing a button.	- Learn how to use device sensors (flashlight component). - Understand the concept of toggle buttons (turning something on and off). - Learn about basic device control in an app.	- Device management, basic coding. - Basic understanding of light and how a flashlight works. - On/off logic (binary concepts)
8.		A simple app where users add and manage tasks.	- Learns data entry - Understands storage - Builds interface logic	- Variables - UI elements - Basic coding
9.		Students create a quiz app with questions and feedback.	- Understands conditional logic - Builds memory skills - Learns simple UI	- Coding - User interaction - Logic blocks

AI TOOLS (NANO BANANA)

10.		Design a comic book using an AI image generator. Students describe their own comic books vividly; AI converts text to image.	- Understands generative AI - Learns descriptive prompting - Builds visual creativity	- Shapes & visuals - Image generation models - Design & engineering thinking
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SUMMER OF INNOVATION

13-16

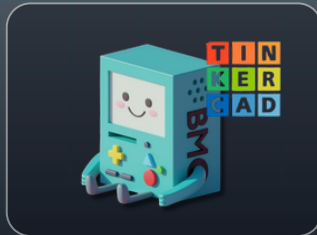
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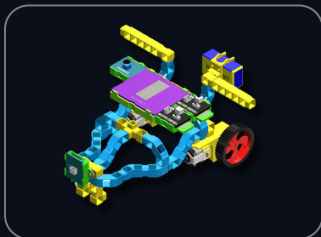
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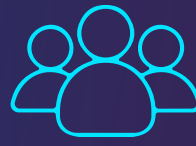
How does it Work?



DURATION
10 HOURS



LOCATION
OFFLINE LEARNING
CENTER NEAR YOU



BATCH SIZE
10 STUDENTS
Per Batch



SLOT
WEEKEND /
WEEKDAYS

What Students Get?



Mentorship from Expert Trainers.

Guidance from experienced mentors with personalized support.



Materials & Kits Provided.

All tools and kits are included for hands-on building and real project experience.



Hands-on project training.

Learn by doing — build real projects instead of just theory.



Session Recordings for Revision.

Access recorded sessions anytime for practice and better understanding.

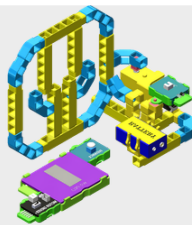
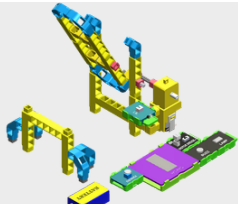
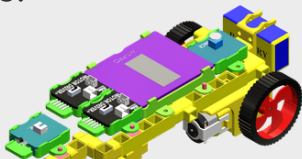


International Certification

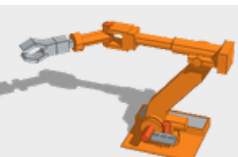
Earn a recognised certificate to showcase skills and achievements.

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ROBOTICS & CODING (OLL ROBOTIC KIT)

1.	 HAND MOTION DOOR	Students use motion or IR sensors to control robot movement using hand gestures.	Gesture-based input control	- Physics: Sensors & Waves - Computer: Analog input processing
2.	 SMARTDRAW BRIDGE	Students build a lifting bridge mechanism controlled by a Witpro programmed chip.	Servo angle control and mechanical design	- Physics: Simple machines - Math: Angles
3.	 OBSTACLE AVOIDER	Students build a robot that detects obstacles using ultrasonic sensors and changes direction automatically.	Distance sensing and conditional navigation	- Physics: Distance measurement - Computer: If-Else logic

3D DESIGNING (USING TINKERCAD)

4.	 3D ROOM DESIGN	A miniature 3D room designed with furniture and layout.	- Learns scaling - Understands measurements - Studies spatial layout	- Area & dimension - Functional modelling - Precision design
5.	 PROSTHETIC-STYLE GRIPPER	Students model a mechanical gripper inspired by prosthetic hands to understand linkage-based movement.	human-inspired engineering, model mechanical fingers	- Mechanical modelling - Linkage design - Human-assistive engineering
6.	 MINIATURE CITY LAYOUT	Students design a scaled 3D city model with roads and buildings to learn layout planning and geometry.	Apply scale accurately, explain basic city planning	- Maps & layout geometry - Measurement accuracy - Urban design basics

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VIBE CODING (WITH AI & PYTHON)

26.



CREATE A WEBSITE USING VIBE CODING

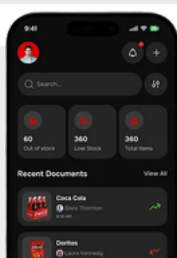
Create a website using an AI tool understand how AI reads prompts.

Tool : Bolt.New

- Learns prompting
- Understands language models

- Logical sequencing
- Language processing
- Technology communication

21.



INVENTORY TRACKER APP

Students code an app that tracks items, stock levels, and quantities.

Tool : Bolt.New

- Learns data storage
- Understands list management
- Builds functional UI

- Variables
- Database handling
- Productivity app skills

15.



AI SCHOOL CHATBOT

Build a chatbot that answers school-related questions, explains concepts, and helps students study.

Using Python

- NLP basics
- Prompt design
- Conversational logic

- ChatGPT, Prompt Engineering, NLP, Intent Mapping

16.



AI SMART MONEY MANAGER & SPENDING PREDICTOR

Students design an AI-powered personal finance system that tracks expenses, analyzes spending behavior, predicts future expenses, and gives smart financial suggestions.

Using Python

- Understand financial data & budgeting
- Apply math concepts (percentages, averages, trends)
- Use AI for prediction & decision-making

- Predictive AI – future expense estimation
- Decision Intelligence – smart suggestions
- Rule-Based AI – spending alerts
- Automation AI – workflow execution
- Generative AI – reports & explanations

ABOUT

Training Students for Tomorrow's World.

Practical Learning for Real world Skills

Started by Shreyaan Daga at age 15, with a mission to make students capable enough to fulfill their dreams. OLL is now India's No.1 Skill Training Platform. Skills like Robotics, Finance, Public Speaking & More



400+
SCHOOLS



1,47,500+
STUDENTS



35+
CITIES



SHREYAAN DAGA

Founder & CEO
Youngest on SharkTank,
on Hot Seat of KBC



VIDUSHI DAGA

Chairperson OLL
15+ Years in Education
Taught 5 lac+kids



AMIT MODI

IIT Bombay Alumni
10+ Years in Robotics
Education for Kids



HEATHER ANDERRSON

President UNESCO World
Genesis Foundation
15+ Years in Education

AS SEEN ON SHARK TANK INDIA, ON HOT SEAT OF KBC



 **Hindustan Times**

**THE TIMES
OF INDIA**

 **moneycontrol**

 **The Indian EXPRESS**