nino

Engineering is an art when learnt right

Introducing SKIP

Sirena Knowledge and Information Program

Here, we build Robots

Sirena Technologies was formed with a purpose to bring innovative world-class products to the market; designed and developed in India, leveraging global ecosystem. The company has built the first Indian Humanoid Robot 'Nino' and introduces SKIP (Sirena Knowledge and Information Program) for schools which is crafted to enable students to learn cutting-edge trending technologies which include Humanoids, Artificial Intelligence, Internet of Things, Voice Recognition, Computer Vision, Mechatronics, 3D printing, Android programming and more.

About SKIP

Sirena Knowledge & Information Program (SKIP) is a unique comprehensive learning package for students, primarily focused on Robotics - concepts, content & exercises. The program provides access to real humanoid robots to students which would enrich their knowledge and help build curiosity for further learning.

Learning

- Teaching various subjects aligned with the school curriculum

- Bringing a real robot closer to you, right in schools, available for young minds to play with their creativity

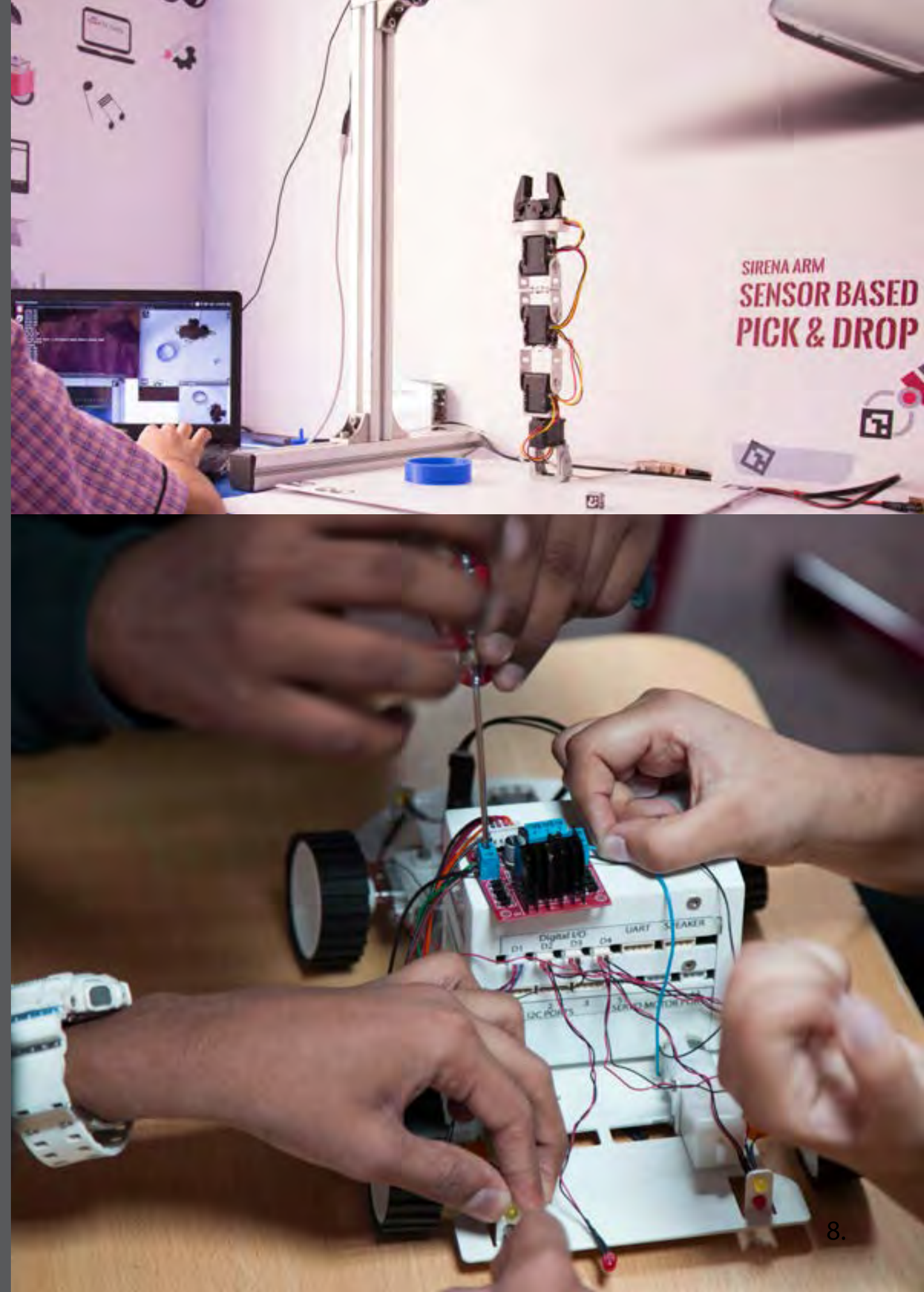- Learn to program a humanoid robot for the first time in India

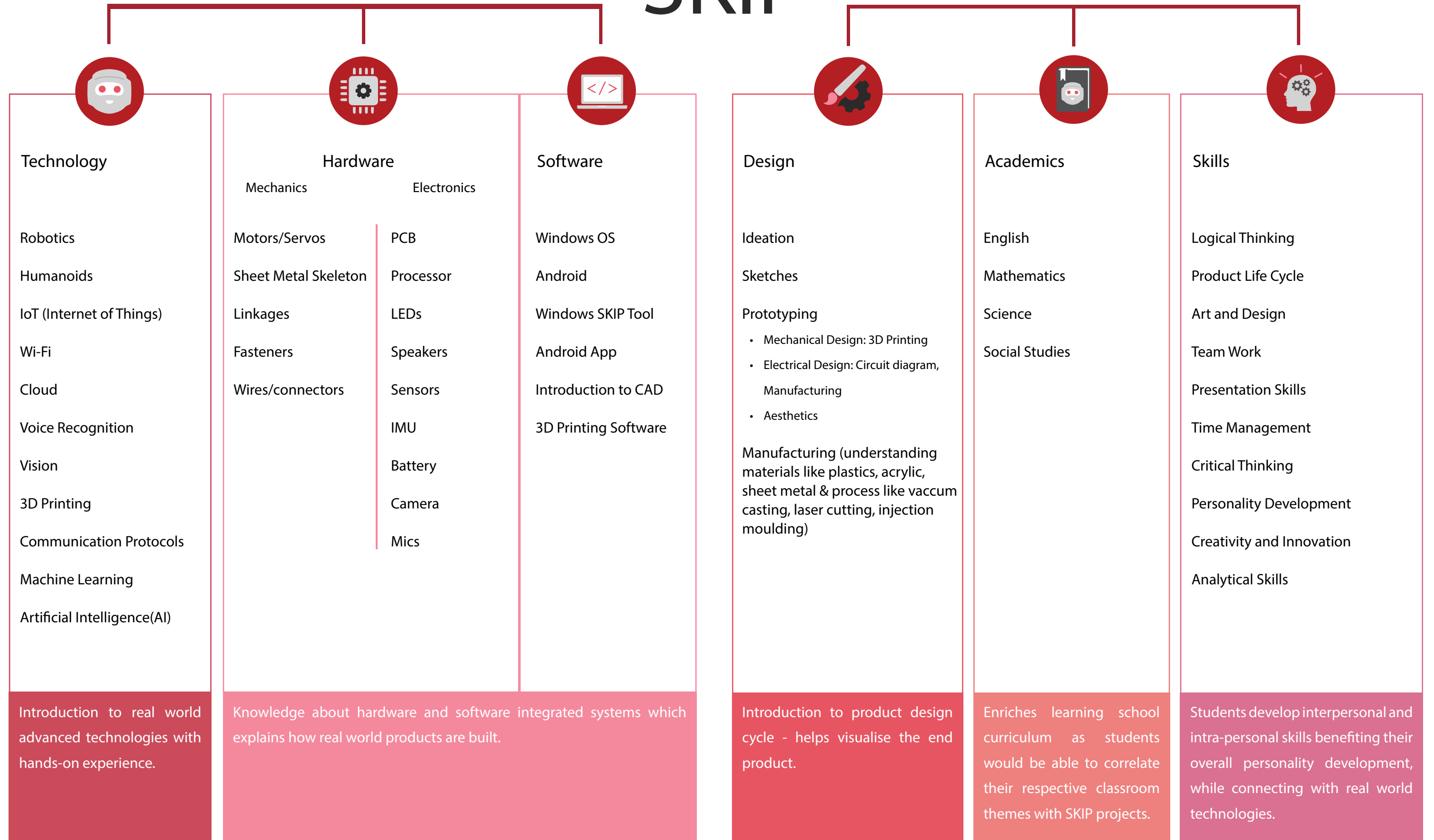## Learn with Nino, understand Technology better

Skills

- Logical Thinking
- Product Life Cycle
- Art and Design
- Team Work
- Presentation Skills
- Time Management
- Critical Thinking
- Personality Development
- Creativity and Innovation
- Analytical Skills

Build Real-Robots in School

SKIP

Technology

Robotics

Humanoids

IoT (Internet of Things)

Wi-Fi

Cloud

Voice Recognition

Vision

3D Printing

Communication Protocols

Machine Learning

Artificial Intelligence(AI)

Introduction to real world advanced technologies with hands-on experience.

Hardware

Mechanics

Motors/Servos

Sheet Metal Skeleton

Linkages

Fasteners

Wires/connectors

Electronics

PCB

Processor

LEDs

Speakers

Sensors

IMU

Battery

Camera

Mics

Software

Windows OS

Android

Windows SKIP Tool

Android App

Introduction to CAD

3D Printing Software

Knowledge about hardware and software integrated systems which explains how real world products are built.

Design

Ideation

Sketches

Prototyping
- Mechanical Design: 3D Printing
- Electrical Design: Circuit diagram, Manufacturing
- Aesthetics

Manufacturing (understanding materials like plastics, acrylic, sheet metal & process like vaccum casting, laser cutting, injection moulding)

Introduction to product design cycle - helps visualise the end product.

Academics

English

Mathematics

Science

Social Studies

Enriches learning school curriculum as students would be able to correlate their respective classroom themes with SKIP projects.

Skills

Logical Thinking

Product Life Cycle

Art and Design

Team Work

Presentation Skills

Time Management

Critical Thinking

Personality Development

Creativity and Innovation

Analytical Skills

Students develop interpersonal and intra-personal skills benefiting their overall personality development, while connecting with real world technologies.

This is a **36 week SKIP Sample Academic Planner** which involves kids from

Grade 4-9. The sections in each grade are divided as below:
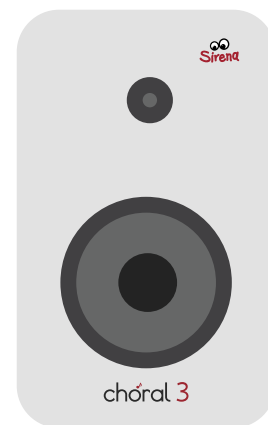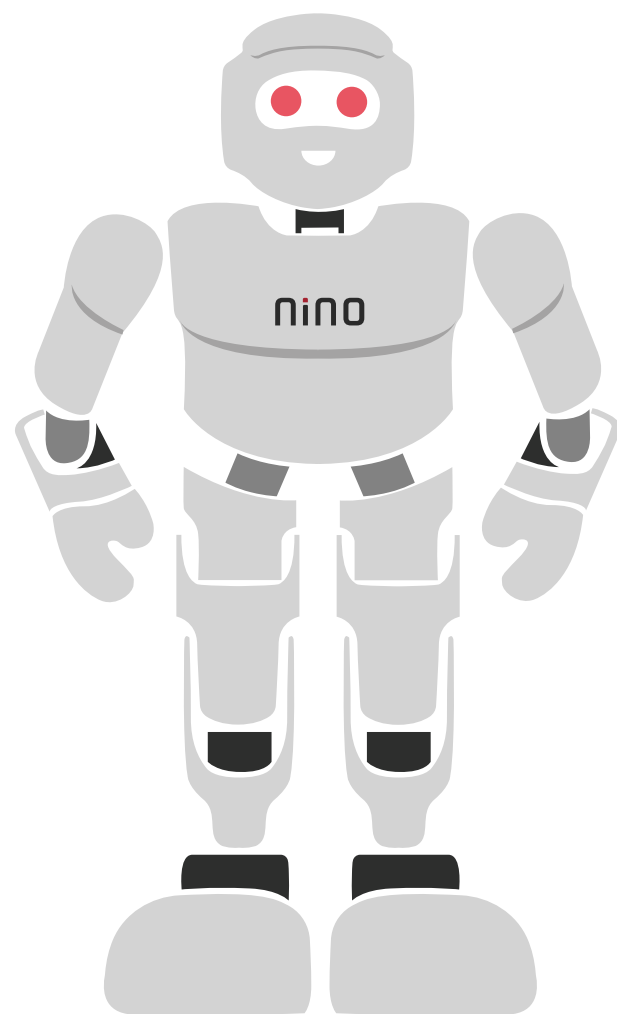
Group 1- 4A, 5A, 6A, 4C, 5C, 7A,8A,9A
Group 2 - 4B, 5B, 6B, 4D, 5D, 7B, 8B, 9B
Group 3 - 4E, 4F, 4G, 6C, 6D,7C, 7D
The activities involve hands on with 4 Ninos, 2 Sirena Robotic Arms, 20 Sirena Robotic Snake kits and 10 Sirena Unmanned Ground Vehicle (UGV) kits. The numbers are subject to change according to the strength of students in a grade and number of sections.
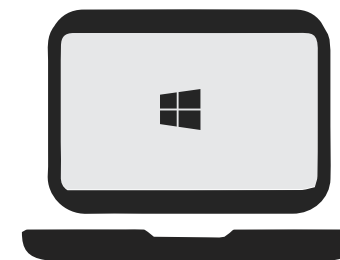
Number of weeks	Group 1	Group 2	Group 3
1	Introduction to Robotics		
2			
3	INCEPTION - Science		
4			
5			
6			
7	ASSEMBLY PROJECTS (Robotic snake kits for Grade 4-6 and Robotic UGV kits for Grade 7-9)	NINO & SIRENA ROBOTIC ARM	Android Programming (3 classes)
8			
9			3D Printing (2 classes)
10			
11			Inception - English (2 classes)
12			
13			Inception - Maths (3 classes)
14			
15			

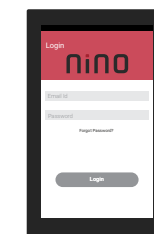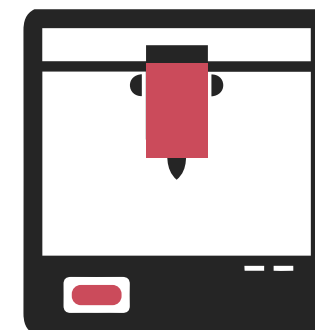| Number of weeks	Group 1	Group 2	Group 3
16	NINO & SIRENA ROBOTIC ARM	Android Programming (3 classes)	ASSEMBLY PROJECTS (Robotic snake kits for Grade 4-6 and Robotic UGV kits for Grade 7-9)
17			
18			
19		3D Printing (2 classes)	
20			
21		Inception - English (2 classes)	
22			
23		Inception - Maths (3 classes)	
24			
25			
26	Android Programming (3 classes)	ASSEMBLY PROJECTS (Robotic snake kits for Grade 4-6 and Robotic UGV kits for Grade 7-9)	NINO & SIRENA ROBOTIC ARM
27			
28			
29	3D Printing (2 classes)		
30			
31	Inception - English (2 classes)		
32			
33	Inception - Maths (3 classes)		
34			
35			
36	THE REVISION DAY		

SKIP Inquiry Tools/Components

Windows PC
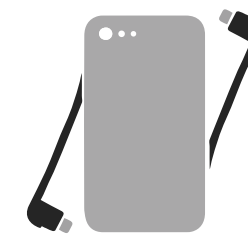
Sirena PC Tools

Sirena APP

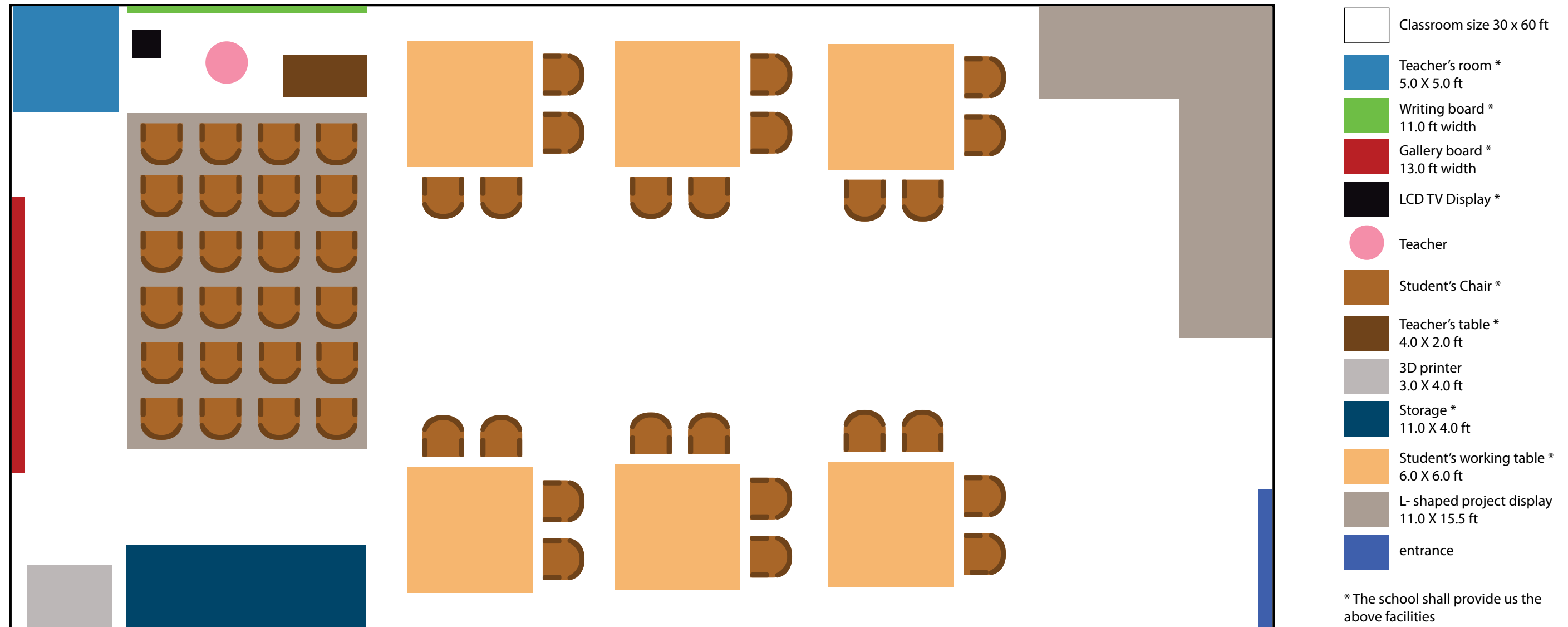3D Printer

3D Printed parts
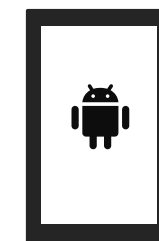
Android Tablet

Access Point

nino

chóral 3

Sirena Speakers - Chorals
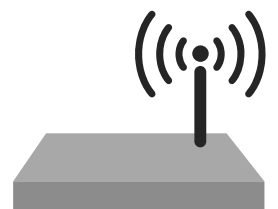
chóral 2

Sensors

Power Bank

Choral M

Miscellaneous

Typical Layout of SKIP- Inquiry Lab

Legend:

- Classroom size 30 x 60 ft
- Teacher's room * 5.0 X 5.0 ft
- Writing board * 11.0 ft width
- Gallery board * 13.0 ft width
- LCD TV Display *
- Teacher
- Student's Chair *
- Teacher's table * 4.0 X 2.0 ft
- 3D printer 3.0 X 4.0 ft
- Storage * 11.0 X 4.0 ft
- Student's working table * 6.0 X 6.0 ft
- L- shaped project display 11.0 X 15.5 ft
- entrance

* The school shall provide us the above facilities
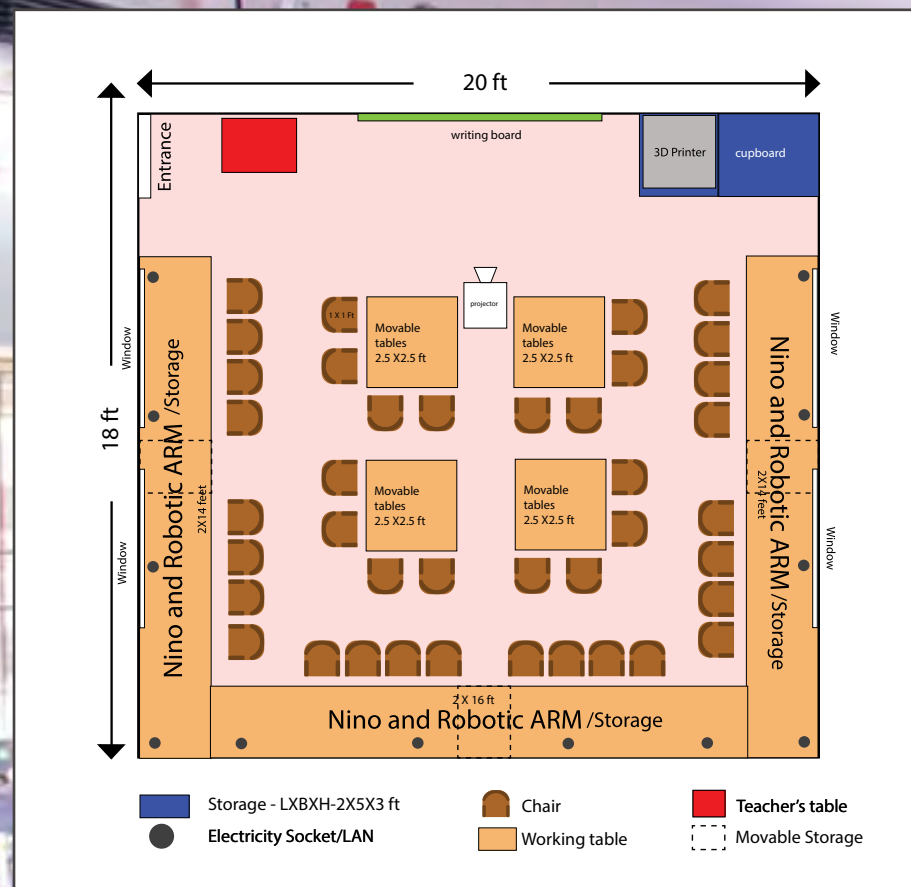
Sirena Responsibilities

- To set up the Robotics Lab with all the above mentioned Hi-Tech Products
- To Provide Full Time Robotics teachers & Lab Assistance
- To Implement the Robotics Curriculum (Approved by DSERT)
- To Provide Service, Maintenance & Free Upgrades
- Delivery will be made within 6 weeks from the day of payment

School Responsibilities

- To Identify & allocate the 800/1,000 Sq Ft Space to Sirena Technologies to setup the lab

Inquiry labs are fully setup, managed and operated by Sirena Technologies

16.

KRM School, Chennai

Floor plan labels:

20 ft
18 ft
Entrance
Window
writing board
3D Printer
cupboard
projector
Movable tables 2.5 X 2.5 ft
Movable tables 2.5 X 2.5 ft
Movable tables 2.5 X 2.5 ft
Movable tables 2.5 X 2.5 ft
Nino and Robotic ARM /Storage 2X14 feet
Nino and Robotic ARM /Storage 2X9 feet
Nino and Robotic ARM /Storage 2X 16 ft

Legend:
- Storage - LXBXH-2X5X3 ft
- Electricity Socket/LAN
- Chair
- Working table
- Teacher's table
- Movable Storage

Engineering is an art when learnt right

18.

Learning at
Sirena Robotics Lab

20.

Kids at Robotics Boot Camp organised by Sirena Technologies

Imagine Robots available to kids in their schools...

me &
nino

Sirena
TECHNOLOGIES
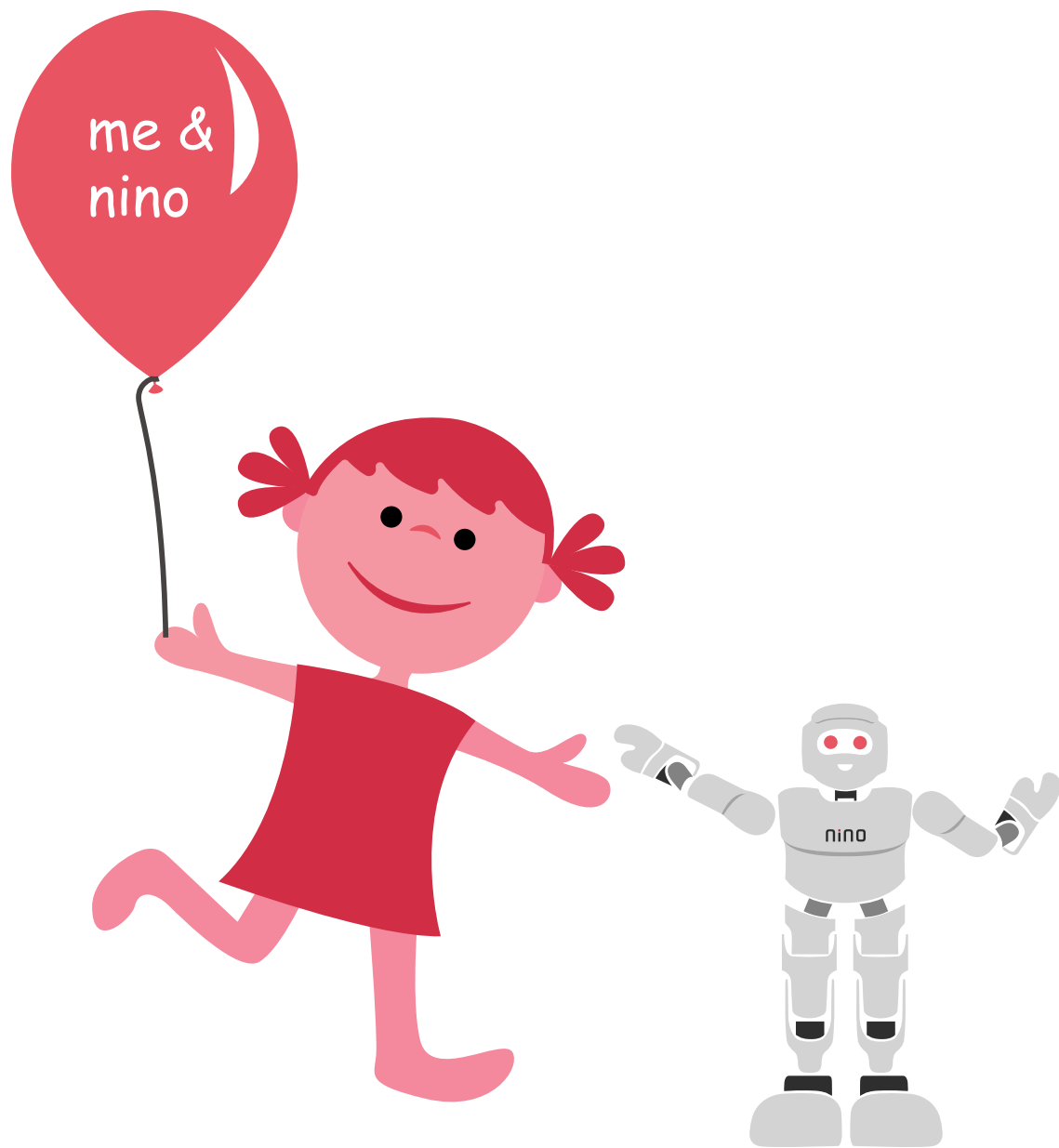
Bridging the gap between
real-world technologies and
education in schools

Contact Us
+91 78999 25747
contactus@sirenatech.com
www.sirenatech.com
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