



# TECHBOT TINKERING LAB

Your one stop solution for STEM  
Education and Innovation.

Techyguide Private Limited

# I AM INNOVATOR

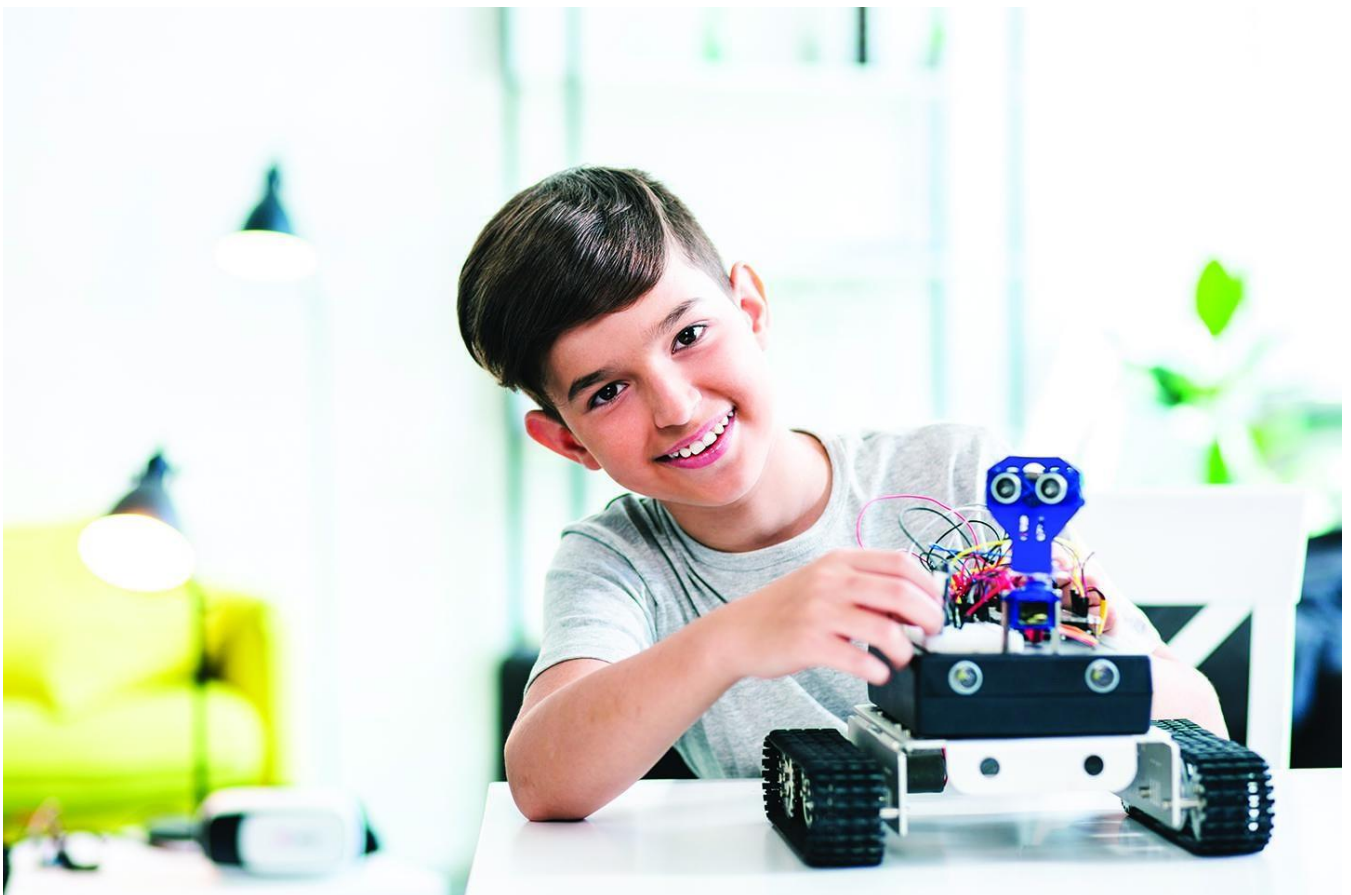
## 1. Overview

The main aim of launching the National Education Policy 2020 is to remodel India's education policy. One of the major objectives of NEP is to create creativity and critical thinking to encourage logical decision-making and innovation; The New Education Policy (NEP) has acknowledged the importance of STEM education in today's time.

STEM Innovation Lab aims at enabling educational institutions towards creating an ecosystem to foster learning, creativity, and innovation in **3D Printing, Artificial Intelligence, Machine Learning, Robotics and Coding.**

One of the larger aims is to prepare students for the future, by introducing and exposing them to essential world skills; to get them to think out of the box, and break boundaries—and make something unique in the process!

SmartGuru helps you create and nurture this ecosystem with its Innovation Program, which involves establishing an Innovation Lab and providing training based on Curriculum.



**STEM Education is the new Normal & Every Student is an Innovator**

## 2. TechBot Robotics Lab:

### 1. Objective

- The main objective of the Robotics lab is to help students develop greater interest in STEM-Robotics (Science, Technology, Engineering, and Math & Robotics) by exposing them to Practical Concepts and Implementation.
- They will be able to Learn, Program and Experiment with STEM-Robotics and co-relate the same with their school curriculum.
- SmartGuru will provide the operation/execution support and if required can in parallel groom designated school's employees, so that the Robotics lab can run smoothly.

## 3. Execution of Lab Set Up

### A. Setting up Robotics Lab

Under the project, there will be the establishment of dedicated AI and Robotics labs in the schools with a wide variety of equipment available for learning by doing approach for the students. Robotics & AI Labs will help the department to create and build an Innovative Science Centre and Practical-based learning areas in each school covered under this project.

Each Lab will have a range of learning kits of AI, Robotics, and STEM (Science, Technology, Engineering, and Mathematics) to innovate and build unique products solutions.

### B. Lab Equipment

- Electronic Component:** to understand practical concepts of Science and Maths by learning by doing an approach where students will be facilitated with hands-on experiments.
- DIY Learning Kits:** It helps students to understand different industrial concepts through a variety of products.
- Mechanical Construction Set:** These are add-ons to the DIY kits which will help students to learn various mechanical concepts.
- Rapid Prototyping:** It helps students to physically see and observe the design made by them over CAD software.
- Mechanical Fabrication Tools:** It helps students to fabricate their designs with the help of pliers, tools, clamps, hacksaws etc.
- Safety Equipment:** There is safety equipment kept in the lab to ensure safety during project making and prototyping.
- Consumables:** Many items to complement the robotics kit like wires, ICS, LEDs etc.

### C. Training of teachers

- SmartGuru will conduct a 5 day physical teacher training program for teachers after the establishment of the lab. Virtual support will be given to teachers on all working days for the period of 1 year without any cost.

- SmartGuru will monitor and give all support to the teachers so that they can conduct classes smoothly.
- Quarterly 3 days Virtual training to teachers for the 1st year.

#### D. Students Training

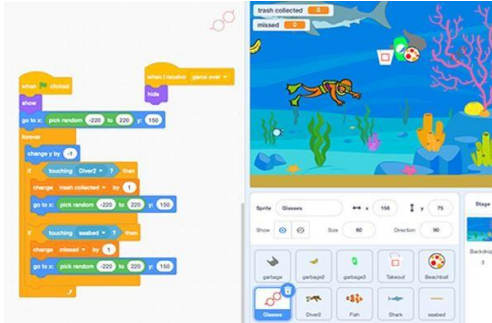
- Schools have to appoint one experienced or trained teacher to conduct classes.
- Students will have 4 classes for each grade per month.
- SmartGuru will give students access to learning content through their LMS.
- Projects will be done in groups and each group will prepare a minimum 2 projects in each year.
- Students will get certificates after completion of each grade and submission of projects.
- Assessment test will be conducted to know the impact of the Robotics Lab.



Proposed 3D Layout for Lab

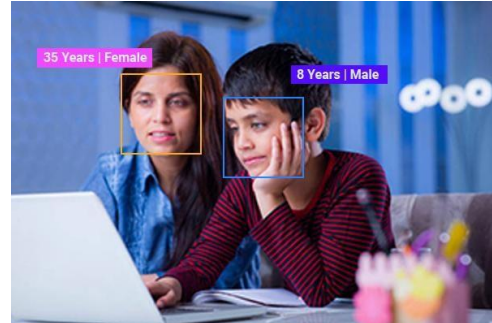
## 4. What Students will Learn

### Coding



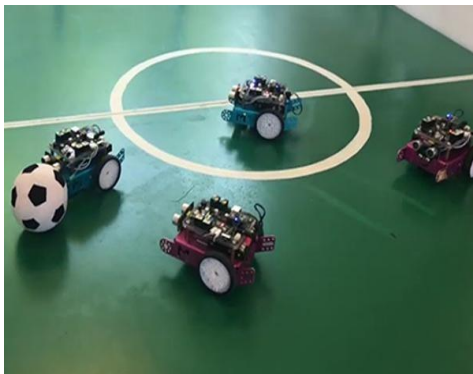
Students will learn building game ,App, websites , robots and many more

### Artificial Intelligence



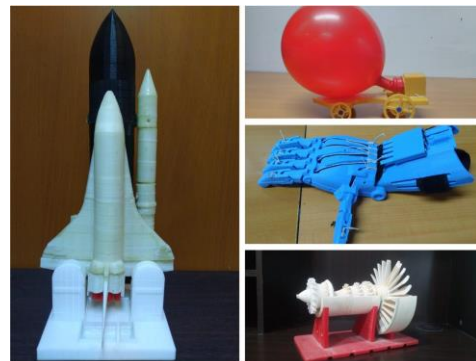
face detection, object detection, Voice recognition, Basics of machine learning

### Robotics



Building of robots and solution to real world problems

### 3D Printing



Designing, Modeling, Rendering, Slicing

### Internet of Things



Basic understanding about everyday use of an IoT device and user experience

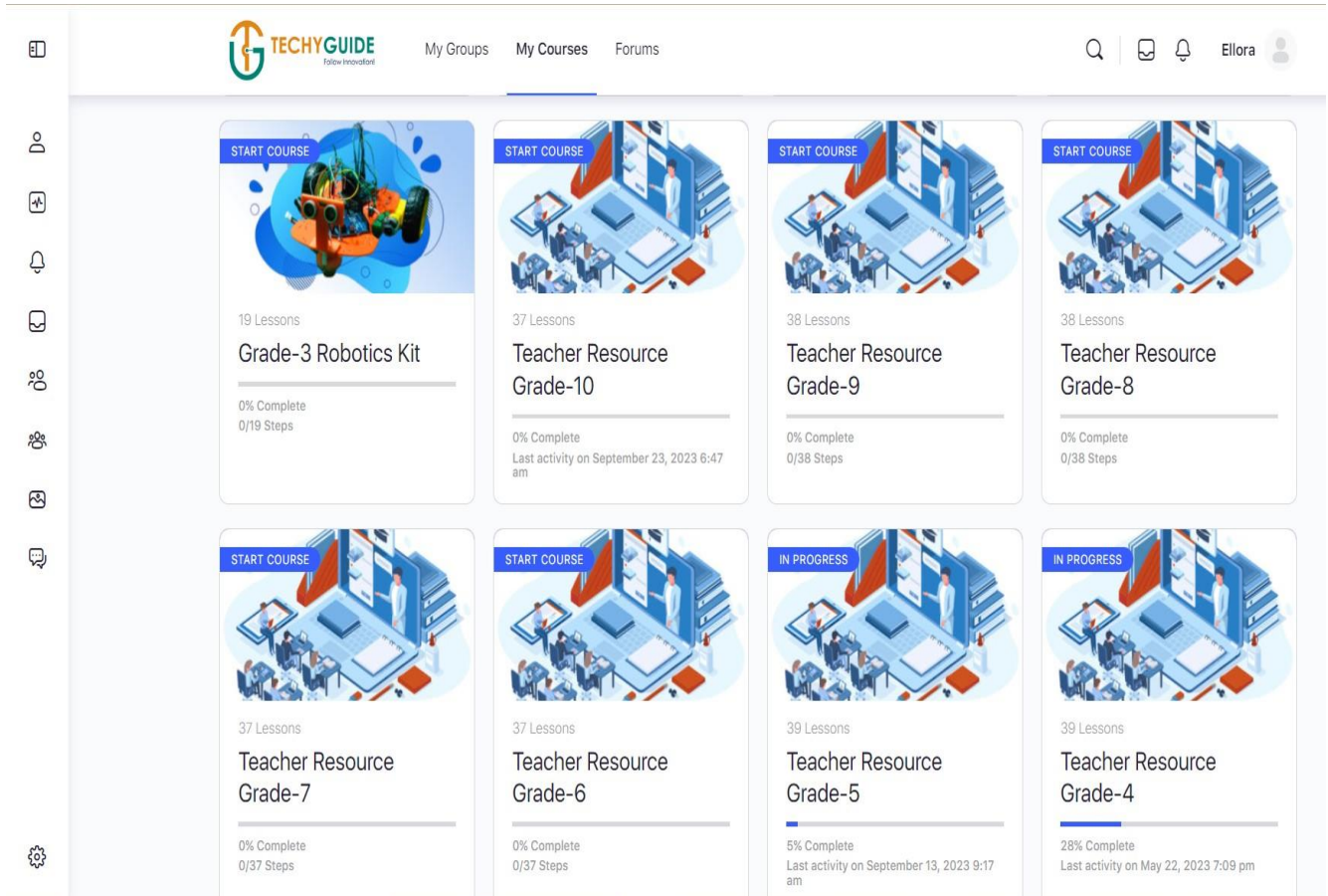
### Drone



The basic principles of drones, Operations & Programming of drones

## 5. Teaching Resource & Curriculum

SmartGuru provides you with a yearlong curriculum for grades 3-10. The curriculum is experiential learning focused and will cover the basics and advanced level of 3D Printing, programming, AI, ML and robotics.



## 6. Infrastructure Required from School

### Option A: Existing Computer Lab

If the school wants to set up the lab in the existing computer lab, then no additional infrastructure is required except 4-8 Android tablets and one cupboard.

### Option B: A New Lab Set Up

Items	Batch of 20	Batch of 30	Batch of 40
Furniture	4 Round Table (3ft*3ft), 2 Rectangular(5*3ft) table, 20 Student Chairs, 1 Teacher Table, 1 teacher chair & 1 cupboard	6 Round Table (3ft*3ft), 4 Rectangular(5*3ft) table, 30 Student Chairs, 1 Teacher Table, 1 teacher chair & 1 cupboard	8 Round Table (3ft*3ft), 4 Rectangular(5*3ft) table, 40 Student Chairs, 1 Teacher Table, 1 teacher chair & 1 cupboard


Laptop / Desktop	4	6	8
Tablet	4	6	8
Projector & Projector Screen	1	1	1



- One 300 - 500 sq. ft room to conduct classes.
- Proper Internet connection.
- 45 mins of 1 class for each grade per week.
- 1 Dedicated teachers for conducting Classes.




## 7. Financials





Schools can set up the robotics lab as per the number of students. We understand that every school is different so we have designed the packages which can be suited in the School's Budget.

TechBot Tinkering lab	Robotics Lab Batch of 10	Robotics Lab Batch of 20	Robotics Lab Batch of 30	Robotics Lab Batch of 40
<b>School Set up Cost</b>	Rs. 2,90,000+GST	Rs.3,90,000+GST	Rs. 4,90,000+GST	Rs. 5,90,000+GST
<b>AMC Cost 2nd year onwards</b>	Rs. 45,000	Rs. 45,000	Rs.45,000	Rs. 45,000







Sl. No	Kit Name	Reference Image	Reference Image	Batch of 10	Batch of 20	Batch of 30	Batch of 40
1	TechBoT Electronic Kit	A mighty Electronics Kit which can do 20+ Robotics projects. The kit consist of various electronics component,		4	10	15	20

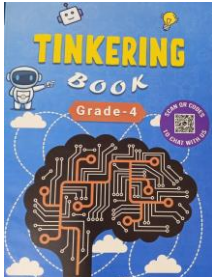
		resistors, capacitors, art & craft items, battery, breadboard					
2	TechIoT Ultimate Kit	A mighty IoT Kit which can do 20+ Robotics projects. The kit Consists of a Powerful brain , various sensors, accutors and grade wise curriculum for students		4	10	15	20
3	TeboT Advance Kit	<p>Robotic DIY Kit</p> <ul style="list-style-type: none"> <li>-2 geared DC Motor</li> <li>-Tricycle model</li> <li>-2 general purpose Wheel</li> <li>-1 Castro wheel</li> <li>-A powerful made on Raspberry Pi Pico board with various inbuilt sensor such as 40 RGB Leds, motion sensors, GPS tracker</li> <li>-Robot Control board consists of</li> <li>-10+ Sensors modules</li> <li>-Rechargeable battery</li> <li>-F-F Jumper Wire -50+</li> <li>Activities - Software Platform Arduino IDE</li> </ul>		4	10	15	20

4	Construction Kit	Mechanical construction Kit		2	4	6	8
5	Drone Kit	Camera Drone		1	1	1	1
6	3D Printer	<p>Printer Type: FDM (Fused Deposition Modelling), Minimum Dimensions: 160mm *160mm *160mm</p> <p>Build Size or 4 litre Build Volume., Nozzle: 0.3mm to 0.4mm nozzle diameter, slicing software should be free or Open source, LCD Screen UI that display print metrics, Good Heated Print bed.</p> <p>Material Compatibility - PLA, ABS, and derivatives of PLA, Repair Kit - with spare springs, screws, keys, tweezers, etc.</p>		1	1	1	1

7	Filament for 3D printer	Compatible 700/1000 Grams Filament		2	3	6	8
8	Filament Storage Box	Generic Plastic Air tight Box		2	3	6	8
9	Otto Kit	A tiny Humanoid kit which can dance, walk, do moon walk, sing a song		1	4	6	8
10	3D Pen	Kids Friendly Magic 3D Pen Intelligent Drawing Printing doodler Pen Drawing 3D Model for Kids and Adults, Types for Crafting, with Pack of 10 pcs (5-Metre)		1	4	6	8
11	Robotics Arm add on Kit	-Learn the robotic Arm industrial Concept -Pre Cut acrylic parts, servo motors, sensors		1	4	6	8

12	Multipurpose Screwdriver	40 pc Multi-purpose screwdriver set		2	4	6	8
13	Flexible Cutting Mat	A3 Size with Marked Pattern and Grids (18" X 12")		2	4	6	8
14	Plastic Tool Box with Organizer	Plastic tool Organizer Box for keeping different sensors		1	1	1	1
15	Hot Glue Gun	GLUN® 80W Hot Melt Glue Gun with 11mm 8 Transparent Glue Stick for DIY use		2	4	6	8
16	Soldering Kit	Complete Soldering Kit for Expert Electronics Assembly and Repair with Precision Tools and Accessories.		2	4	6	8
17	Digital MultiMeter	A multimeter is a measuring instrument that can measure multiple electrical properties.		2	4	6	8

18	Glue Sticks	Glue stick for Glue Gun		20	40	60	80
19	Safety goggles	Safety google for doing soldering work		4	8	12	16
20	Safety Gloves Pairs	Heat Resistant Gloves Heat Press Gloves for Heat Transfer Printing 3D Vacuum Heat Transfer Machine Gloves.		4	8	12	16
21	Safety Mask	Mask for solderings		4	8	12	16
22	Banners	Lab Decoration posters		1	1	1	1
23	Tablet	Lenovo TabM10 FHD 3rd Gen   10.1 Inch (25.65 cm)   4 GB RAM, 64 GB ROM   Wi-Fi   Full HD Display   Dual Speakers   Octa-Core Processor (Storm Grey)		1	1	1	1

23	Course LMS ID	Grade Wise individual course Id for teachers & students		1/ Student	1/ Student	1/ Student	1/ Student
24	Teacher training	Physical teacher Training		5 days	5 Days	5 Days	5 Days
25	Hand Book	Teachers Hand book 3 to 10 grade		1 set	1 set	1 set	1 set

**Payment Terms:** 90% Advance & 10% after installation

**Delivery & Installation:** with in 15- 20 days after receiving of order and advance payment

### 8. Annual Maintenance Contract

Below mentioned point will be coming under AMC

- All updated curriculum will be given.
- Repair and maintenance of equipment.
- 5 days virtual refresher training for teachers.

**Account Details**  
**Smart Guru Services**  
**A/C-201000768451**  
**IFSC- INDB0000383**  
**Indusind Bank**  
**(Indirapuram Branch Ghaziabad)**

### 9. About SmartGuru

**SmartGuru Private Limited** is a leading provider for a suite of professional courses. We work with Educational Institutions, government and private organisations to address unique learning needs. We provide product and services in the education sphere encompassing, designing, installation, integration, and commissioning an end-to-end solution.

SmartGuru is a pioneer in the field of STEAM<sup>™</sup>D (Science, Technology, Engineering, Arts, Mathematics and Design) Education. We manufacture hardware for Robotics, 3D Printing, IOT and many more and develop software which is used for Skill Based Technical Training and System Infrastructure Support.

We partner with institutions to bridge the digital divide by setting up infrastructure and impart applied concepts, through highly trained faculty.

In line with the vision of our nation; we strongly believe in Make in India. SmartGuru products are able to combine the toy aspect that children love so much with STEAM<sup>™</sup>D learning, producing a powerful tool that teachers can use in the classroom or in a lab setup.

During the last 2 years SmartGuru has achieved the following things

1. **100+ Robotics, AI, Coding Labs in India.**
2. **50+ ATL Labs all over India.**
3. **Trained 50000+ students all over India.**
4. **Trained 100+ Teaches on STEM Education.**
5. **Supplied Robotics Lab materials in 50+ Govt Schools through tender.**
6. **5 star rated GeM registered vendor for ATL Lab.**

### Few Testimonials By our Schools



We have used TechyGuide's ATL service and the consultation service. Their services were very good and always respond to our queries promptly.

**HEADMASTER**  
Mr. Gopinath jena

**L.N Nobel High school**  
Balasore, Odisha



I have learn artificial intelligence, robotics, coding, 3d printing and mane more. These coursesare very interesting to me and I think It's also very helpful for my students. So thanks to TechyGuide

**TEACHER**  
Pankaj Kumar Dey

**Govt. Gandhi Secondary School**  
Arunachal Pradesh



"The ALT service given by TechyGuide Team was Commendable. Starting from the support to get the grant to updating PFMS, GeM & ALT dash thair team is always there only a phone call away."

**ROBOTICS INCHARGE**

**RLS CONVENT SCHOOL**  
Uttar Pradesh

"Very much satisfied with TechyGuide's serviceand products"


Thank you  
TechyGuide



**TEACHER**


**HARI MAYA SCHOOL**  
Uttar Pradesh

I love the part of the 3D printing, because in that we have learn about the software, and we have converted our designs into 3D model. It was a wonderful experience



**CREATOR OF LITERACY INDIA**

"TechyGuide's ALT Consultation service is the best in the industry."



**PRINCIPAL**  
Tari koyu

**Govt. Secondary school, Gandhi**  
Arunachal Pradesh

## Few of our Lab Gallery



Literacy India



Shemrock Hopes and Dreams



Gitanjali Vidyalaya Vadodara



Gandhi Group AMC School



Millenium Public School



Hem Sheela School, Durgapur



Mother Suhag Inter College, Fatehpur, UP



RLS Convent School



Sardar Vallabh Bhai Patel School, Ahemdabad, Gujarat



Mungiabari Hr. Sec. School



Chaman Bharatiya School



Bachpan and AHPS, Rayagada



Jajoo Intenational School, Yavatmal



Nobel School Alipur, Karnataka



St Joans School



North Delhi Public School, Shalimarbagh

## Contact Us

Email [ramniwas.y@gmail.com](mailto:ramniwas.y@gmail.com)

Contact No- 7840014144

Head Office- SF11, Shipra Suncity, Indirapuram, Noida 201014

## Printed Creatives to Decorate Lab

