Program Timeline and Activity Guide

Tinkering Level	Students Enrolled	Objective	Session Design	Timeline
Level 1: Pre Tinker	All students from Class 6th -12 th	Introduction to tinkering, pre ideation, idea generation and ATL visits	Four sessions of one hour each, allocate one period every week	One Month
Level 2: Tinker Club	Open to interested students, teachers can nominate, students supported by mentors, collaborative team work	Introduction to design thinking, digital literacy, computational thinking with Do-It Yourself activities, make students Tinkerers	One sessions of one hour per week or one session of two hours per week	Two Month
Level 3: Tinker Lab	Open to interested and selected student Tinkerers, teachers can nominate, students supported by mentors, collaborative team work	Introduction to physical computing and building real time projects, make students Makers	Flexible designed as per needs of the project with the assistance of ATL In Charge and ATL Teachers	Three Months
Level 4: Post Tinker Lab	Self-driven students interested in working on real life projects with guidance from mentors, collaborative team work	Encourage motivated students continue to solve real world problems, ATL In charge and mentors guide, make them Innovators	Can be determined by the ATL In-charge depending upon the requirement of projects	Can be determined by the ATL In-charge depending upon the requirement of projects

https://aim.gov.in/pdf/ATL-calendar.pdf

ATL Equipment

Atal Tinkering Labs (ATL) are designed to foster creativity and innovation in young minds. They are equipped with a variety of tools and equipment to help students learn and experiment with science, technology, engineering, and mathematics (STEM) concepts. Here's a detailed description of the equipment.

https://atl.aim.gov.in/ATL-Equipment-Manual/

Electronics Development, Robotics, IoT, and Sensors	**Rapid Prototyping Tools**	**Mechanical, Electrical, and Measurement Tools**	**Power Supply, Accessories, and Safety Equipment**	**Additional Equipment**
Arduino Uno: A microcontroller board used for building digital devices and interactive objects	**3D Printers**:Used to create three-dimensional objects from digital models.	**Multimeters**: Devices used to measure voltage, current, and resistance in electrical circuits.	**Power Supplies**: Devices that provide the necessary electrical power for various projects.	**DIY Kits**: Kits that include various components and instructions for building specific projects
Arduino Nano: A smaller version of the Arduino Uno, used for compact projects		**Soldering Kits**: Tools used to join electronic components together	**Safety Gear**: Includes items like goggles, gloves, and lab coats to ensure safety while working on projects	**Sensors**: Devices that detect changes in the environment and send information to other electronics
Raspberry Pi 3 Model B+: A small, affordable computer used for programming and electronics projects				**Robotics Kits**: Kits that include parts and instructions for building robots
Breadboards: Solderless boards for prototyping electronic circuits.				