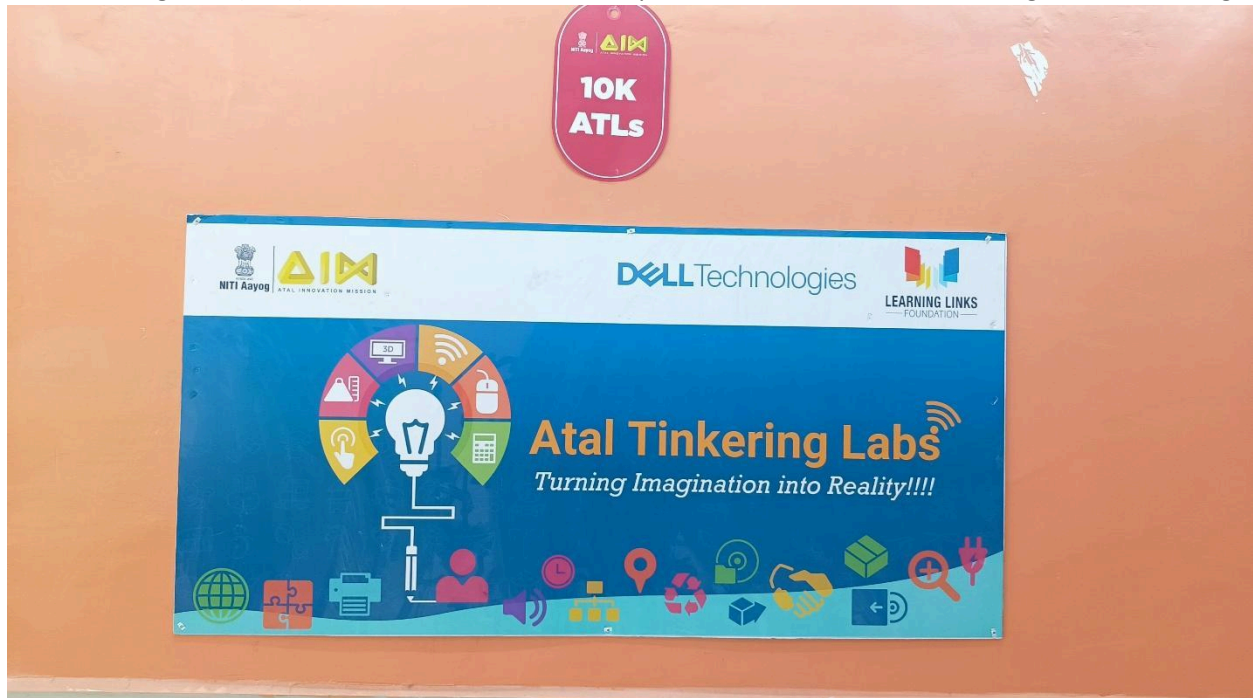


Atal Tinkering Labs (ATLs) in PM SHRI KV No 1 Udhampur Jammu and Kashmir are designed to encourage



creativity, imagination, and curiosity in students. ATL projects can help students develop skills like computational thinking, adaptive learning, and design mindset. Some project ideas for

ATLs include:

1. Waste collection system: A system that can monitor and optimize waste collection to reduce environmental impact.
2. Portable water filtration device: A cost-effective and efficient way to purify water in areas with limited access to clean water.
3. Augmented reality educational app: An interactive app that can make learning more engaging.
4. Line follower robot: A robot that follows a line.
5. TV remote controlled robot: A robot that can be controlled by a TV remote.
6. Voice controlled robot: A robot that can be controlled by voice.
7. Gesture controlled robot: A robot that can be controlled by gestures using Bluetooth.
8. Automatic street light: A street light that uses an LDR sensor and arduino.
9. Traffic control system: A traffic control system that uses arduino.
10. Fan control: A fan control system that uses an HC-05 Bluetooth module.
11. Automatic barrier system: A barrier system that uses IR sensors.
12. ATL's are workspaces where children can realize their ideas through hands-on do-it-yourself mode and also acquire innovation skills. They get the chance to comprehend STEM (Science, Technology, Engineering, and Math) concepts.
13. To provide facilities to work with latest technologies & tools electronics, sensors, open source micro-controller boards, 3D printers etc. to create technology innovations.

Atal Tinkering Labs (ATL) have four equipment packages:

Package 1 (P1): Electronics development, robotics, Internet of Things, and sensors.

Package 2 (P2): Rapid prototyping tools, microcontroller kits, breadboards, circuit boards, and their accessories.

Package 3 (P3): Mechanical, electrical, and measurement tools, such as soldering irons and multimeters.

Package 4 (P4): Power supply, accessories, and safety equipment .

