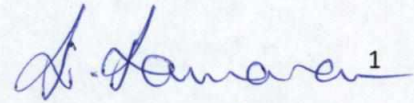


ATL Equipment List – Batch of 60 Students

1. All ATL Schools are required to purchase equipment, as per the 'ATL Equipment list' (<http://aim.gov.in/guidelines-for-school.php>). The suggested quantity is mentioned in the ATL equipment list. Please note this list is not exhaustive, however it is mandatory for schools to purchase all equipment mentioned in the list as per their requirement.
2. All ATL Schools and vendors are required to follow all guidelines and documents mentioned on the AIM portal (<http://aim.gov.in/guidelines-for-school.php>). All the equipment considered necessary have been classified into the following four packages as follows:
 - a. P1 - Electronics Development, Robotics, Internet of Things, and Sensors
 - b. P2 - Rapid Prototyping Tools
 - c. P3 - Mechanical, Electrical, and Measurement tools
 - d. P4 - Power Supply, Accessories and Safety equipment

Package 1: Electronics Development, Robotics, Internet of Things and Sensors				
Category	Name	Specification	Suggested Quantity	Type
Electronics Development	Arduino Uno or equivalent	ATmega328P - 8 bit AVR family microcontroller, equivalent or better.	30	Consumable
		Operating Voltage: 5V		
		Digital I/O Pins: 14 (of which 6 provide PWM output)		
		PWM Digital I/O Pins : 6		
		Accessories : Case shell enclosure, compatible USB cable (length - 6 inch or more)		
Electronics Development	Arduino Nano or equivalent	ATmega328P - 8 bit AVR family microcontroller, equivalent or better.	10	Consumable
		Operating Voltage: 5V		
		Digital I/O Pins : 14 (of which 6 provide PWM output)		
		Analog Input Pins : 8		
		Accessories : Compatible USB cable (length -6 inch or more)		



(आर. रमण)
(R. Ramanan)
मिशन निदेशक, अटल इनोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

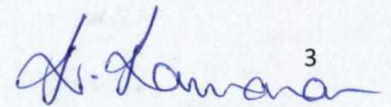
Category	Name	Specification	Suggested Quantity	Type
Electronics Development	Arduino Mega or equivalent	ATmega 2560P - 8 bit AVR family microcontroller, equivalent or better.	10	Consumable
		Operating Voltage: 5V		
		Digital I/O Pins : 54 (of which 6 provide PWM output)		
		Analog Input Pins: 16		
		Accessories: Case shell enclosure, Compatible USB cable (length -6 inch or more)		
Electronics Development	Raspberry Pi 3 Model B+	RASPERRY PI 3 MODEL B+, equivalent or better	5	Consumable
		Accessories - MicroSD card - 32 GB, USB 3.0 cable (1 meter), HDMI to VGA - 1 meter, HDMI to VGA adapter, Case shell enclosure		
Electronics Development	Breadboards & Mini Breadboard	Solderless 400 pin breadboard	30	Consumable
		Solderless 800 pin breadboard	20	
		Self-Adhesive Proto Shield	20	
Electronics Development	General Purpose solderable Board	FR2 A Grade Material (140 x 90 mm)	30	Consumable
		FR2 A Grade Material (80 x 55 mm)	30	Consumable
	Berg Strips	Female Berg Strip, 2.54mm pitch, 40 pin single row, breakable pin	30	Consumable
		Male Berg Strip, 2.54mm pitch, 40 pin single row, breakable pin	30	Consumable
Electronics Development	16x2 LCD display	Dot matrix LCD display. 16 characters X 2 lines. I2C	20	Consumable
Electronics Development	USB Cables	USB Cable Set (A to B, 12 inch or more)	10	Consumable
Electronics Development	USB Cables	USB Cable Set (Mini, 12 inches or more)	10	Consumable
Electronics Development	Battery	9-12V 2000 to 2500 mAh rechargeable battery with 2 chargers. Equivalent or better	10	Consumable



(आर. रमणन)
(R. Ramanan)

मिशन निदेशक, अटल इनोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

Category	Name	Specification	Suggested Quantity	Type
Electronics Development	Resistor Kit	One kit contains - 30 carbon film resistors of 20 different resistance values each assorted, packaged together and labelled.	20	Consumable
		Wattage: 0.125W to 1W		
		Values: 0Ω, 1.5Ω, 4.7Ω, 10Ω, 47Ω, 100Ω, 220Ω, 330Ω, 470Ω, 680Ω, 1kΩ, 2.2kΩ, 3.3kΩ, 4.7kΩ, 10kΩ, 22kΩ, 47kΩ, 100kΩ, 330kΩ, 1MΩ		
Electronics Development	Capacitor Kit	One kit contains - 20 electrolytic capacitors of 10 different capacitance values each.	20	Consumable
		Assorted kit packaged together and labelled.		
		Values: 10pF, 22pF, 100pF, 1nF, 10nF, 100nF, 1μF, 10μF, 100μF, 1000μF		
Electronics Development	Linear Voltage Regulator	7805, 7812, 7809	30	Consumable
Electronics Development	Water Pump module	DC12V 3W Submersible Water Pump	4	Consumable
Electronics Development	Piezoelectric Plate	Normal Copper based 4 cm Diameter approx.	30	Consumable
Electronics Development	8*8 LED Matrix Module	Max7219 Dot LED Matrix Module. MCU Control LED Display Module	10	Consumable
Electronics Development	Bluetooth module	HC 05 Bluetooth module	15	Consumable
		Voltage Rating: 5 V		
Electronics Development	7 Segment Led Display	LED 4-Digit Display Module	20	Consumable
		Voltage Rating: 2.4V to 5.5V		
		4-Pin interface: Vcc, Gnd, Data, Clock		
Electronics Development	GSM	Sim900 GPRS Transfer Board Micro Sim Gsm Core TTL Port Module for Arduino	4	Consumable
Electronics Development	GPS	GY-NEO6MV2 new GPS module	4	Consumable
Electronics Development	Laser Diode Emitter	650 nm 5mW Mini Laser Dot Diode Module	10	Consumable

 3

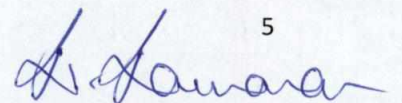
(आर. रमणन)
(R. Raman)

मिशन निदेशक, अटल इन्वोल्वेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

Category	Name	Specification	Suggested Quantity	Type
Electronics Development	LDR Module	5mm/12mm, Photosensitive LDR Light Sensor Module	30	Consumable
Electronics Development	Keypad	Universal 16 Key Switch Keypad	10	Consumable
Electronics Development	JoyStick	2-axis joystick with push button function	10	Consumable
Electronics Development	Active Buzzer	Small 5 volt	40	Consumable
		Big 5 volt	40	Consumable
Electronics Development	Motor driver Module	L293D	10	Consumable
Electronics Development	Sound Playback Module	ISD1820 voice recording module or equivalent	10	Consumable
Electronics Development	DC Plastic Gear motor with wheel	12V, 150RPM, Side Shaft BO (Battery operation) Motor	40	Consumable
Electronics Development	Node MCU	ESP 8266	6	Consumable
		I2C, 1 wire, plug and play		
Electronics Development	WeMos D1 R2	WeMos D1 R2 with WiFi ESP 8266	6	Consumable
		Operating Voltage: 5V		
Electronics Development	Vibrating Motor	Weight: 10 Grams	20	Consumable
		Operating Voltage: 1.5 to 3V		
Electronics Development	Alligator Connectors	Multi-Colour Alligator Connectors - 12 inch	200	Consumable
Electronics Development	Battery clips with DC Jack	9-volt battery clips with DC Jack	40	Consumable
Electronics Development	Hook-up Wires	Red & Black set 100 Meters each	4	Consumable
Electronics Development	Jumper Cable	Male-Male	1000	Consumable
		Male-Female	600	
		Female-Female	400	
Electronics Development	RGB LEDs	Regular 5mm 3-5 volt Range	400	Consumable
Electronics Development	LEDs (Red)	Regular 5mm 3-5 volt Range	1000	Consumable
Electronics Development	LEDs (Green)	Regular 5mm 3-5 volt Range	1000	Consumable
Electronics Development	LEDs (Blue)	Regular 5mm 3-5 volt Range	1000	Consumable
Electronics Development	LEDs (Yellow)	Regular 5mm 3-5 volt Range	1000	Consumable
Electronics Development	LEDs (White)	Regular 5mm 3-5 volt Range	1000	Consumable


 (आर. रमण)
 (R. Ramanan) 4
 मिशन निदेशक, अटल इनोवेशन मिशन
 Mission Director, Atal Innovation Mission
 अतिरिक्त सचिव, निति आयोग
 Additional Secretary, NITI Aayog
 भारत सरकार/Govt. of India

Category	Name	Specification	Suggested Quantity	Type
Electronics Development	Timer IC - LM 555	LM 555 Timer IC.	30	Consumable
		Voltage range - 4.5V to 16V		
Electronics Development	Atmega16u2	8 bit microcontroller Individual IC (DIP).	10	Consumable
		Voltage range: 2.7V to 5.5V.		
		Operational Range: -40°C to +80°C		
Electronics Development	Diodes and Transistors Kit	One Kit Contains - 25 Assorted Basic Diodes of 4 different types each.	3	Consumable
		Types: NPN Transistor - 2N3904, BC547 PNP Transistor - 2N3906, BC557 Silicon Diode - 1N4148, Power Diode - 1N4004/4001.		
		Equivalent or better.		
		Wattage: 1W, Current rating: 1A		
		Assorted kit packaged together and labelled.		
Electronics Development	Button Switch Set	One Kit Contains - 100 buttons of different types.	3	Consumable
		Types: Push, toggle, rotary, selector and slide switch.		
		Assorted kit packaged together and labelled.		
Electronics Development	Capacitive touch Module	MPR 121 with I2C.	20	Consumable
		Voltage Range: 2.5V to 3.6V DC.		
Electronics Development	Capacitive Touch Switch Module	Digital Capacitive touch switch module -TTP223B	10	Consumable
		Voltage Range: 2V to 5V DC.		
Internet of Things & Sensors	IR Sensors, Obstacle avoider sensor module	LM393	20	Consumable
		Detection distance: 2 - 30 cm		
		Detection angle: 30 - 40°		
Internet of Things & Sensors	Triple Axis Magnetometer	3-Axis Magneto resistive Sensors	10	Consumable
		I2C Digital Interface		
		Integrated 12-bit ADC		
		Range of -8 to +8 Gauss		
		160 Hz Maximum o/p rate		



(आर. रमणन)
(R. Ramanan)

मिशन निदेशक, अटल इनोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

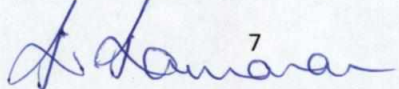
Category	Name	Specification	Suggested Quantity	Type
Internet of Things & Sensors	Humidity Sensor	Operating range:	10	Consumable
		20 – 95 % RH		
		Temperature: 0 - 60 Celsius		
		Power supply:		
		1.5V AC (Max sine)		
		Operating frequency:		
500Hz - 2kHz				
Internet of Things & Sensors	MQ Series	MQ - 2 Smoke Detection	3	Consumable
		MQ-3 Alcohol - Ethanol Sensor	3	
		MQ-4 Methane Natural Gas Sensor	3	
		MQ-5 Methane Liquified Gas Sensor	3	
		MQ-6 Liquified Petroleum Gas Sensor	3	
		MQ-7 High Sensitivity CO Carbon Monoxide Sensor Detector	3	
		MQ-8 Hydrogen Gas Sensor	3	
		MQ-135 Air Quality Sensor	3	
Internet of Things & Sensors	IR transmitter/ receiver	TSOP 1738	10	Consumable
		Switching rate: 38 KHz		
		Voltage Rating: 5V		
Internet of Things & Sensors	Ultrasonic Sensor Module HC-SR-04 or compatible	Working Voltage - DC 5V	40	Consumable
		Working current - 15 mA		
		Working Frequency - 40 Hz		
		Range - 1 cm to 4 m		
		Effectual Angle - <15°		
		Measuring Angle - 30°		
Resolution - 0.3 cm				
Internet of Things & Sensors	Triple Axis accelerometer-	3-axis sensing	10	Consumable
		Small, low profile package		
		4 mm × 4 mm × 1.45 mm LFCSP		
		Low Power: 350 µA (typical)		
		Single-supply operation: 1.8 V to 3.6 V		
		Temperature stability		



(आर. रमणन)
(R. Ramanan)

6

Category	Name	Specification	Suggested Quantity	Type
Internet of Things & Sensors	PIR Motion Detector Module	High digital pulse when motion detected	20	Consumable
		Low digital pulse when idle /no motion detected		
		Sensitivity range (up to 6 m)		
		Power supply: 5V – 12V		
Internet of Things & Sensors	Pulse Rate Heart Sensor	Pulse Rate Sensor Finger Based (finger or earlobe) Working voltage 3-5V	4	Consumable
Internet of Things & Sensors	Relay Module	5V 10A - 2 Channel Relay Module. Compatible with Arduino.	20	Consumable
Internet of Things & Sensors	Relay Module	5V 10A - 1 Channel Relay Module. Compatible with Arduino.	20	Consumable
Internet of Things & Sensors	Big Sound microphone module	Large Electret capsule sound module	10	Consumable
Internet of Things & Sensors	Big Sound microphone module	Large Electret capsule sound module	10	Consumable
Internet of Things & Sensors	Soil Moisture Sensor module	FC-28 with LM293 comparator	6	Consumable
		Operating Voltage: 3.3V to 5V.		
Internet of Things & Sensors	Touch Sensor	Capacitive Touch Sensor Module. TTP22X series. Voltage Range: 2.4V to 5.5V	6	Consumable
Internet of Things & Sensors	Metal Touch Sensor Module	KY-036 or equivalent metal touch sensor module	6	Consumable
Internet of Things & Sensors	Rain Drop Sensor	Rain Sensitive, Rain Drop Detection Sensor Module. Voltage Range: 3.3V to 5.5V.	6	Consumable
		Size: 5mm X 40mm or equivalent.		
Internet of Things & Sensors	Flex Sensor	Flex Sensor. Size - 2.2 Inches	6	Consumable
Internet of Things & Sensors	Temperature Sensor	LM35 Full range temperature sensor. Voltage Range: 4V to 30V. Error: $\pm 0.5^{\circ}\text{C}$	6	Consumable
Internet of Things & Sensors	Temperature and humidity sensor module	DHT 11	40	Consumable
		Voltage Range: 3V to 5V		

 7

(आर. रमण)
(R. Raman)

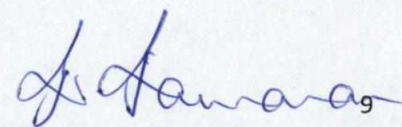
मिशन निदेशक, अटल इनोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

Category	Name	Specification	Suggested Quantity	Type
Internet of Things & Sensors	Force Pressure Sensor	Force sensitive resistor with a square, 1.75x1.5" sensing area	4	Consumable
Internet of Things & Sensors	Colour Recognition Sensor	TCS3200 Colour Recognition Sensor	4	Consumable
Internet of Things & Sensors	Water Flow Sensor	Arduino Compatible Water flow sensor. 5V DC Input.	4	Consumable
Internet of Things & Sensors	Sound Sensor	Sound Sensor Module, Microphones module	10	Consumable
Internet of Things & Sensors	IR Sensors Array module for Line Following	8 IR Sensors Array module for Line Following Operating Voltage: 5V	10	Consumable
Internet of Things & Sensors	Power Bank	10000 mAh 5-volt Power Bank	5	Consumable
Internet of Things & Sensors	RFID Reader – Tags	Current :13-26mA / DC 3.3V Idle Current :10-13mA Sleep Current<80uA Peak Current<30mA Operating Frequency: 13.56MHz<30mA Read range between 20 cm to 1 m	10	Consumable
Internet of Things & Sensors	RF Modules Tx & Rx 315 MHz ASK	Frequency Range: 433.92/315 MHz Supply Voltage: 3 – 6 V Output: 4 – 16 Dbm Low power consumption Easy application	10	Consumable
Robotics	Stepper motor with Driver board	28BYJ-48 ULN2003 5V Stepper Motor + ULN2003 Driver Board	10	Consumable
Robotics	DC motor	12V DC Gear 150 RPM	20	Consumable


 (आर. रमणन)
 (R. Ramanan)
 मिशन निदेशक, अटल इनोवेशन मिशन
 Mission Director, Atal Innovation Mission
 अतिरिक्त सचिव, निति आयोग
 Additional Secretary, NITI Aayog
 भारत सरकार/Govt. of India

Category	Name	Specification	Suggested Quantity	Type
Robotics	Servo motors	Position Servo Angle based Metal Gear	10	Consumable
		Small Servo Metal Gear	10	
		Continuous Metal Gear Servo 360	10	
		Small Servo Plastic Gear	40	
Robotics	150 RPM BO Motor	150 RPM BO Motor	10	Consumable
Robotics	L298P Motor Driver	L298P Motor Driver Shield or relative Driver Shield	10	Consumable
Robotics	Servo Motor Tester	CCPM 3 channel Servo Tester	4	Consumable
DIY Kit	Robotics DIY Kit	Robotics DIY kit with programmable intelligent brain/brick.	3	Equipment
DIY Kit	Mechanical (Modular) Construction kit	Metal/plastic mechanical construction kit compatible with electronic equipment.	5	Equipment
STEM Learning/Application Kit	Drone Kit	Educational Purpose	1	Equipment
	Aerospace Kit		1	
	Automobile Kit		1	
	Bio-Medical Kit		1	
	Agri-Tech Kit		1	
	Water/Sanitation Kit		1	
	Bio Tech Kit		1	
	Other Potential STEM Application Kit		1	

For Package P1, it is important to note that the various kinds of electronics/ robotics platforms are likely to be on different platforms, and their sub-components are normally not inter-changeable. Therefore, schools are advised to evaluate all platforms for robotics, IoT, and electronics development, and pick any one/ more of the available P1 educational platforms, and buy all components on the same platform, so that the various components are compatible to each other.



(आर. रमणन)
(R. Ramanan)
मिशन निदेशक, अटल इन्ोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

Package 2: Rapid Prototyping Tools				
Category	Name	Description	Suggested Quantity	Type
Rapid Prototyping Tools	3D Printer Kit and tools	Printer Type: FDM (Fused Deposition Modelling), Minimum Dimensions: 160mm *160mm *160mm 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. Material Compatibility - PLA, ABS, and derivatives of PLA, Ninjaflex Quality Anti-bacterial/fungal Cover. Repair Kit - with spare springs, screws, keys, tweezers, etc.	1	Equipment
Rapid Prototyping Tools	Dedicated UPS/Power back up	Dedicated UPS/Power Back up with 2-hour battery backup.	1	Equipment
Rapid Prototyping Tools	Filament for 3D printer	Compatible 1000 Grams Filament in 5 different colours	5	Consumable
Rapid Prototyping Tools	Filament Storage Box	Compatible Filament storage box	5	Consumable
Rapid Prototyping Tools	Set of Arts & Crafts Accessories – e.g.- stationary items and basic prototyping material	Cardboard	5	Consumable
		Foam core boards	5	
		20m spool of thick strings various colour	5	
		Rubber band	100	
		Popsicle sticks	100	
		Wood glue – 500 ml	2	



(आर. रमणन)
(R. Ramanan)
मिशन निदेशक, अटल इन्वोलुशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निती आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

Package 3: Mechanical, Electrical and Measurement tools				
Category	Name	Description	Suggested Quantity	Type
Mechanical Tools	Hacksaw Frame	Size: 12 inches	1	Equipment
Mechanical Tools	Hacksaw blades	Size: 12 inches	10	Consumable
Mechanical Tools	Mini Hacksaw Frame	Size: 6 inches	1	Equipment
Mechanical Tools	Mini Hacksaw blades	Size: 6 inches	10	Consumable
Mechanical Tools	Pliers: 4.5-inch size	External Straight	1	Equipment
		Nose Circlip Plier	1	
		Long Nose Plier	1	
		Combination Mini Plier	1	
		Wire stripping pliers	1	
		Bent nose plier	1	
		Needle nose pliers	1	
Mechanical Tools	Tweezer Set	6 Pc Non-Magnetic Tweezer Set Size - 6 inches	2	Equipment
Mechanical Tools	Ball Pein Hammer	Ball Pein Hammer Weight - 0.75kg	1	Equipment
Mechanical Tools	Steel Shaft Claw Hammer	Claw Hammer Steel Shaft Weight - 0.75kg	1	Equipment
Mechanical Tools	C-Clamp	Metal Clamp: 3-inch size	4	Equipment
Mechanical Tools	Allen Key Set	10 Piece Ring Imperial Allen Hex key	1	Equipment
Mechanical Tools	Drill Machine Set	Drill Machine with accessories Hammer/Screw and clockwise/anticlockwise modes. Power: 500W Chuck capacity - 1 to 10 mm Drill Bits - Masonry, Metal, Wood	1	Equipment
Mechanical Tools	Drilling Workstation	Drill Press, Drill Holder and Rotary Tool, Compatible with Drilling machine provided	1	Equipment
Mechanical Tools	Spanner Set	12-piece combination Spanner Set Range - 4 mm to 30 mm	1	Equipment

R. Raman

(आर. रमण)
(R. Raman)
मिशन निदेशक, अटल इनोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

(आर. रमण)
(R. Raman)

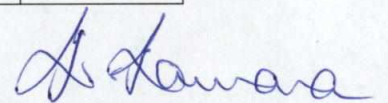
Category	Name	Description	Suggested Quantity	Type
Mechanical Tools	Vice Normal	Table top vice	1	Equipment
Mechanical Tools	Precision Screw Driver Set	6 Piece Precision Screw Driver Set Types: PH0, PH1, Flat head - 1.4mm, 2mm, 2.4mm, 3mm	2	Equipment
Mechanical Tools	Wrench	Adjustable Universal Wrench	2	Equipment
Mechanical Tools	Wire Strippers	Wire Stripper Cutter Plier With Spring -26x6x20 cm (LxWxH)	5	Equipment
Mechanical Tools	Screwdriver	40 pc Multi-purpose screwdriver set	3	Equipment
Mechanical Tools	Cordless Rotary Multitool Set	Cordless Rotary multitool with all cutting, grinding, polishing, engraving and drill bits. Speed: Adjustable up to 30000 RPM Battery Type: Li-ion Voltage/current range : 8-10V, 0-2 A	1	Equipment
Mechanical Tools	Air Blower	500 W or more. Variable speed blower	1	Equipment
Mechanical Tools	Drill Bit Set	High Quality 13 Pcs HSS Drill Bits Set for Wood, Iron, Aluminium, Plastic etc.	1	Equipment
Mechanical Tools	File set	6 pc file set Working length - 6 inch	1	Equipment
	Mini File set	6 pc mini file set Working length - 3 inch	1	Equipment
Mechanical Tools	Flexible Cutting Mat	A3 Size with Marked Pattern and Grids (18" X 12")	1	Equipment
Mechanical Tools	Plastic Storage Drawer/Organiser	Number of Drawers: 60 or equivalent Drawer size (l*w*d) (inch) : 2*2*5	2	Equipment
Mechanical Tools	Pegboard	Peg board System to mount tools on wall with attachments. Size: 3ft*2ft	2	Equipment

R. Ramanam

(आर. रमणन)
(R. Ramanam)

मिशन निदेशक, अटल इनोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

Category	Name	Description	Suggested Quantity	Type
Electric Tools	Hot glue gun	Works with standard 0.5-inch glue sticks. Temperature - 230 to 280 degree Celsius.	4	Equipment
Electric Tools	Digital Oscilloscope	Minimum Bandwidth: 50 Mhz. Minimum number of channels: 2 channels. Sample Rate: 1Gsa/s With inbuilt waveform function generator.	1	Equipment
Electric Tools	Soldering Kit	Variable Wattage of Soldering Iron: 15-30 watts/230 volts Soldering Iron Temperature Range: 280°C to 450°C De-Soldering Pump, Soldering Flux (Paste) 100 grams, DE-soldering Copper Braid (Solder Wick) - 1.5m*2mm Compatible Soldering Tip - Bevel, Chisel, Conical - 5 each per kit. Soldering Wire: 20/22 AWG soldering Wire with rosin core flux (100 Grams)	4	Equipment
Electric Tools	Adapters	DC power Adapter with 5V, 2A	10	Consumable
Electric Tools	Adapters	DC power Adapter with 12V, 2A	10	Consumable
Electric Tools	Electric Screw Driver Set	Multipurpose Electric screwdriver set. Accessories - Compatible bits Mode - Wireless Battery - Li-ion 3.6V or equivalent with charging dock	1	Equipment
Electric Tools	Dual Temperature Heat Gun	1800 W Dual Temperature Heat Gun	1	Equipment



13
(आर. रमण)
(R. Ramanan)

मिशन निदेशक, अटल इनोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

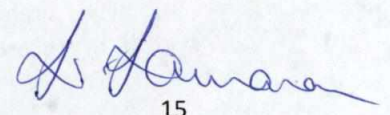
Category	Name	Description	Suggested Quantity	Type
Electric Tools	Soldering Helping hand	Specifications: Adjustable crocodile holding clamps/clip. Soldering iron holder. LED light. Magnifying lens.	4	Equipment
Measurement Tools	Return measuring tape	Return measuring tape 5Mx19mm	2	Equipment
Measurement Tools	Stainless Steel Rule	Stainless Steel 12" / 150 mm Rule	5	Equipment
Measurement Tools	Digital Vernier Calliper	150 mm / 6" Digital Vernier Calliper	2	Equipment
Measurement Tools	Spirit Level	12" Spirit Level	1	Equipment
Measurement Tools	Digital Pen electric Tester	Voltage tester	1	Equipment
Measurement Tools	Digital Multi Meter	Digital Multi Meter Voltage Current Resistance-7 functions + 19 ranges to cover DC voltage 200mV to 1kV, AC voltage 200 V - 750 V, DC current 200 μ A - 10 A Resistance 200 -2 M Ohm and Transistor & diode test.	5	Equipment
Biology Kit	DIY Paper Microscope	DIY Paper microscope. Magnification range - 100x to 2000x	5	Consumable
Astronomy Equipment	Telescope	All glass optical components Altazimuth mount suitable for terrestrial and astronomical use minimum 700 mm focal length	1	Equipment
Textile Equipment	Sewing Kit	Semi-Automatic Sewing machine Straight stitch Consumables - 2 set of assorted needles and 10- colour spool set.	1	Equipment



(आर. रमणन)
(R. Ramanan)

मिशन निदेशक, अटल इनोवेशन मिशन 14
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निविदा शाखा
Additional Secretary, Bid Cell
भारत सरकार/Govt. of India

Package 4: Power Supply & Accessories and Safety Equipment				
Category	Name	Description	Suggested Quantity	Type
Power Supply & accessories	Glue Sticks	11 mm x 200mm Hot Melt Glue Stick	100	Consumable
Power Supply & accessories	Nuts and Bolts and screw	Specs - M4X12MM M4X20MM M5X16MM M5X25MM M6X20MM	40	Consumable
Power Supply & accessories	Cable Tie	Small Cable Tie Pack - Pack of 100	10	Consumable
		Medium Cable Tie Pack - Pack of 100	10	Consumable
		Big Cable Tie Pack - Pack of 100	10	Consumable
Power Supply & accessories	Sand Paper	Grit Values - 80, 100, 120, 200, 300. 5 Nos of each	10	Consumable
Power Supply & accessories	Power Strip Adaptors	Standard Quality Extension with 5Amp safety fuse. 5 or more sockets in each extension. 5-meter length of each extension.	5	Consumable
Power Supply & accessories	Bulb Holders	Regular Hanging Bulb holder	10	Consumable
Power Supply & accessories	Electric Wires	Twisted Red black pair	20 meters	Consumable
Power Supply & accessories	USB TO DC jack cable	USB to DC jack cable for Battery bank	10	Consumable
Safety equipment	First-Aid Kit	Standard Medical First Aid kit in portable container.	2	Consumable
Safety equipment	Fire extinguisher (handy units)	Powder Type Fire Extinguisher 2KG	2	Consumable
Safety equipment	Safety goggles (with/ without LED torch)	Polycarbonate Safety goggles Clear lens with no tint	30	Consumable
Safety equipment	Safety Gloves Pairs	Latex Coating Gloves (Medium Size)	10	Consumable
Safety equipment	Safety Mask	Filtering efficiency ranging 80 percent when tested against 0.3-micron sodium chloride particle	20	Consumable



15

(आर. रमणन)
(R. Ramanan)

मिशन निदेशक, अटल इनोवेशन मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India

Guideline for Vendors:

1. It is mandatory for all vendors to provide installation and equipment training to the Schools (Principal/ ATL-in charge/ faculty members) on handling and usage of equipment, after the delivery of the equipment, at no additional charge.
2. It is mandatory for all vendors to provide 2 years of comprehensive warranty at no additional charge (including for 3D printers). If the school requires repairing of an ATL equipment, then the vendor should provide a replacement till the time the equipment is fully repaired).
3. Vendors should clearly indicate the timeline for delivery of packages, installation and training. The delivery time should not be more than 1 month.
4. The vendors should maintain a supply chain of consumables and other items for 5 years.
5. The vendors should provide 3-year comprehensive AMC, wherever applicable, and clearly indicate the terms and conditions of the same.
6. The vendors should indicate both itemized prices and package wise pricing and provide detailed specification and brand name of all the equipment
7. The vendor should provide all required documents for verification by the school at the time of purchase of equipment. Authorized signatory must sign the documents.
8. The vendors should have a mechanism for proper disposal of e-waste.
9. In case the vendors are third party vendors or channel partners, they should ensure timely availability of all equipment and associated services to the School, to avoid any delay or inconvenience to the schools.
10. The Vendor must ensure the quality of the supplied item and requisite services are satisfactory and up to mark. If the same is not found satisfactory for whatsoever reason, the supplier shall be blacklisted and necessary administrative action shall be taken against them.
11. Schools can spend a maximum of Rs. 7,00,000/- (Rupees Seven Lakhs Only) on all the packages P1, P2, P3, P4 . The total quotation for all the packages should not exceed the stipulated amount.
12. While you interact with the ATL schools, please make a note of the following guidelines:
 - a. Please remember '**NITI Aayog is not endorsing any equipment supplier / vendor, nor has empanelled anyone**'.
 - b. In case the vendors are conducting an event for the school, please note that such events cannot be branded as '**Atal Tinkering Lab Orientation**'. This is very misleading for the schools. Any such events/ interactions that you conduct with ATL schools, should be treated as independent event/ interaction, and not linked to NITI Aayog's event.
 - c. No vendor is allowed to use **ATL/NITI branding, logo or names** on their website, or at any of their events.
 - d. In case the school has any query please direct them to write to atlhelp-niti@nic.in whereas the vendors are advised not to communicate with the school on behalf of NITI Aayog, this is misleading.
13. The vendors found involved any malpractice, misleading schools, and cheating would be blacklisted immediately.
14. All procurement shall be made through the GeM portal only. Schools are instructed to follow the GeM procurement guidelines and procure material as per the lowest quote.



(आर. रमण)
(R. Ramanan)
मिशन निदेशक, अटल इन्वोल्वमेंट मिशन
Mission Director, Atal Innovation Mission
अतिरिक्त सचिव, निति आयोग
Additional Secretary, NITI Aayog
भारत सरकार/Govt. of India