

ATL Equipment List – Batch of 90 Students

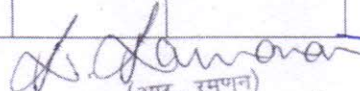
1. All ATL Schools are required to purchase equipment, as per the 'ATL Equipment list' (<http://aim.gov.in/guidelines-for-school.php>). The suggested quantity is mentioned in the ATL equipment list. Please note this list is not exhaustive, however it is mandatory for schools to purchase all equipment 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					Rate per unit/ item
Category	Name	Specification	Suggested Quantity	Type	
Electronics Development	Arduino Uno or equivalent	ATmega328P - 8 bit AVR family microcontroller, equivalent or better.	45	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.	15	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)			

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Category	Name	Specification	Suggested Quantity	Type	Rate per unit/item
Electronics Development	Arduino Mega or equivalent	ATmega 2560P - 8 bit AVR family microcontroller, equivalent or better.	15	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	8	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	50	Consumable	
		Solderless 800 pin breadboard	30		
		Self-Adhesive Proto Shield	30		
Electronics Development	General Purpose solderable Board	FR2 A Grade Material (140 x 90 mm)	50	Consumable	
		FR2 A Grade Material (80 x 55 mm)	50	Consumable	
	Berg Strips	Female Berg Strip, 2.54mm pitch, 40 pin single row, breakable pin	50	Consumable	
		Male Berg Strip, 2.54mm pitch, 40 pin single row, breakable pin	50	Consumable	
Electronics Development	16x2 LCD display	Dot matrix LCD display. 16 characters X 2 lines. I2C	30	Consumable	
Electronics Development	USB Cables	USB Cable Set (A to B, 12 inch or more)	15	Consumable	
Electronics Development	USB Cables	USB Cable Set (Mini, 12 inches or more)	15	Consumable	
Electronics Development	Battery	9-12V 2000 to 2500 mAh rechargeable battery with 2 chargers. Equivalent or better	10	Consumable	


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Category	Name	Specification	Suggested Quantity	Type	Rate per unit/item
Electronics Development	Resistor Kit	One kit contains - 30 carbon film resistors of 20 different resistance values each assorted, packaged together and labelled.	30	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.	30	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	45	Consumable	
Electronics Development	Water Pump module	DC12V 3W Submersible Water Pump	6	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	30	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	6	Consumable	
Electronics Development	GPS	GY-NEO6MV2 new GPS module	6	Consumable	
Electronics Development	Laser Diode Emitter	650 nm 5mW Mini Laser Dot Diode Module	15	Consumable	
Electronics Development	LDR Module	5mm/12mm, Photosensitive LDR Light Sensor Module	45	Consumable	

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