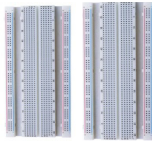
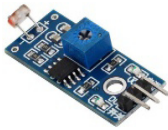
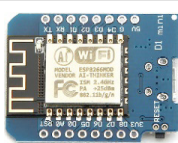


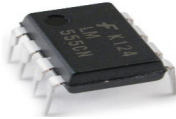
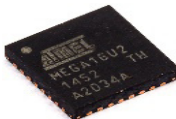
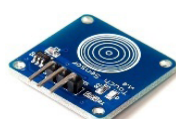
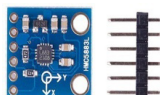
ATAL TINKERING LAB PACKAGE PROPOSAL (For 60 Students)

Package 1: Electronics Development, Robotics, Internet of Things and Sensors					
SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
1	Arduino	Arduino UNO or compatible microprocessor & microcontroller	ATmega 328P-8bit AVR family microcontroller, operating voltage: 5v, Digital I/O pin 14,PWM digital I/O Pins:6	30	
2	Arduino	Arduino Nano	ATmega 328P-8bit AVR family microcontroller, operating voltage: 5v,Digital I/O pin 14,PWM digital I/O Pins:6,Analog input pins:8	10	
3	Arduino	Arduino Mega	ATmega2560 P-8bit AVR family microcontroller, operating voltage: 5v,Digital I/O pin 54,,Analog input pins:16	10	
3	Raspberry pi	Raspberry pi3	Raspberry pi3 model B, (Including HDMI cable, Class 10A memory card), USB 3.0 cable, HDMI to VGA adapter.	5	
4	GL12	Breadboards & Mini Breadboard	Solderless 400 points	30	
			Solderless 800 Points	20	
	Arduino compatible		Self Adhesive Proto shield	20	
5	White Label	General purpose Soldering Board	FR2 A Grade Material (140*90mm)	30	
			FR2 A Grade Material (80*55mm)	30	
			Female Berg Strip 40 Pins	30	
			Male Berg Strip 40 Pins	30	
6	EW	9 Volt battery, multiple resistors and capacitors for electronics Project various Size	9V-12V, 2000Mha, Rechargeable Battery, with 2 charger, 9V 2000Mha-05 12V 2000Mha-05	10	
			Multiple Resistor, consist with diferent value	20	
			Multiple Capacitor (one kit consist 20 Electrolyte capacitor	20	
7	white Label	16x2 LDC display with I2C	Dot matrix LCD display with 16 characters x 2 lines	30	
8	Arduino compatible	USB Cable Set	USB Cable Set (A to B 12 inch)	10	

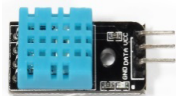
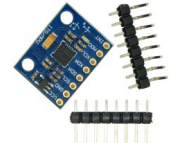
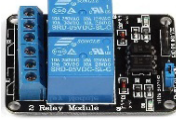
Package 1: Electronics Development, Robotics, Internet of Things and Sensors					
SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
8	Arduino compatible	USB Cable Set	USB Cable Set Mini, 12 inch	10	
9	Fairchild	Line Voltage Regulator	7805	10	
			7812	10	
			7809	10	
10	White Label	Water Pump Module	DC 12V,4W,Submersible water Pump	4	
11	White Label	Piezoelectric Plate	Normal copper based 4cm Diameter	30	
12	Arduino compatible	8*8 LED Matrix Module	Max 7219 Dot LED Matrix Module MCU control LED Display Module	10	
13	Arduino compatible	Bluetooth	HC 05 working voltage 5 Volt	15	
14	Arduino compatible	7 Segment LED Display	LED 4-digit Display Module w/t clock point /4 pin Du Pont line for Arduino.	20	
15	Arduino compatible	GSM	SIM 800L Gers Transfer board micro Sim core Ttl port module for Arduino	4	
16	Arduino compatible	GPS	GY NEO6MV2 New GPS Module	4	
17	Arduino compatible	Laser Diode	650Nm, 6mm, 5V DC, 5mw mini Laser dot diode module	10	
18	Arduino compatible	LDR Module	Photosensitive LDR light sensor module	30	

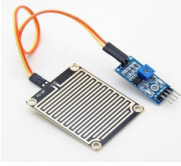
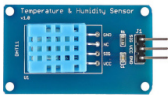
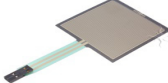
Package 1: Electronics Development, Robotics, Internet of Things and Sensors					
SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
19	Arduino compatible	Keypad	Universal 16 Key switch keypad	10	
20	Arduino compatible	Joy Stick	Joy stick module for Arduino	10	
21	White Label	Active Buzzer	Small 5 Volt	40	
			Big 5 Volt	40	
22	Texas	Motor Driver	L293D Motor Driver module	10	
23	Arduino compatible	Sound Play Back Module	Voice Board Recording Recorder Playback Module on Board Microphone with Mic Sound Audio Loudspeaker	10	
24	White Label	DC plastic gear motor with wheel	12V,150 RPM, Side shaft BO motor	40	
25	Arduino compatible	Node MCU / Wemos D1	WIFI Internet Development Board Module Node MCU, ESP8266, I2C,1 wire, plug and play	6	
26	White Label	Vibrating Motor	Vibrating Motor weight 10gram, operating voltage 1.5 to 3V	20	
27	White Label	Alligator Connectors	Multi Colour Alligator Connectors	200	
28	White Label	Battery clips with DC Jack	9 volt battery clips with DC Jack	40	
29	White Label	Hook-up Wires	Red & Black set 100 Meters each	4	
30	White Label	Jumper Cable	Male - Male	1000	
			Male-Female	600	
			Female -Female	400	

Package 1: Electronics Development, Robotics, Internet of Things and Sensors

SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
31	White Label	RGB LEDs	Regular 5mm 3-5 volt Range	400	
32	White Label	LEDs (Red)	Regular 5mm 3-5 volt Range	1000	
33	White Label	LEDs (Green)	Regular 5mm 3-5 volt Range	1000	
	White Label	LEDs (Blue)	Regular 5mm 3-5 volt Range	1000	
	White Label	LEDs (Yellow)	Regular 5mm 3-5 volt Range	1000	
34	White Label	LEDs (White)	Regular 5mm 3-5 volt Range	1000	
35	White Label	Diode & Transistor Kit	one kit contains with 25 Assorted and 4 different type each (Different Basic Diodes kit 25 diode with 4 different type (1N4148, 1N4004, 1N4007, 1N4001) NPN Transistor 2N3904, BC547) PNP Transistor 2N3906, BC557)	3	
36	White Label	Push Button Switch	one kit contains 100 Buttons of different type, typepush, toggle, rotatry, selector and side switch	3	
37	Texas	555 Timer IC	LM 555 Timer IC, Voltage range 4.5V to 16V,	30	
38	ATMEL	ATmega16U2	8 bit microcontroller Individual IC (DIP) voltage range 2.7v to 5.5 volt, operating range -40°C to +80°C	10	
39	Arduino compatible	Capacitive Touch Module	MPR121 with i2cvoltage range 2.5V to 3.6 V DC	20	
40	Arduino compatible	Capacitive Touch Switch Module	Digital cap [acitive Touch switch Module TTP223B, volltage Range 2V to 5V DC	10	
41	Arduino compatible	IR Sensors Obstacle avoider Sensor Module	LM 393, Detection Distance:2-30 CM Detection Angle 30-40*	20	
42	Arduino compatible	Triple Axis Magnetometer	3-Axis Magneto resistive Sensors I2C Digital Interface Integrated 12-bit ADC Range of -8 to +8 Gauss 160 Hz Maximum Output Rate	10	

Package 1: Electronics Development, Robotics, Internet of Things and Sensors

SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
43	Arduino compatible	Humidity Sensor	Operating range: 20-95% RH Temperature: 0-60 Celsius Power supply: 1.5V AC (Max sine) Operating frequency: 500-2KHZ	10	
44	Grove	MQ Series	MQ-2 Smoke Detection	3	
			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 (Smoke Fast response Stable and long life Simple drive circuit)	3	
45	White Label	IR (transmitter) receiver-TSOP 1738	Switching rate-38 KHz Operating voltage 5V	10	
46	Arduino compatible	Ultrasonic Sensor Module HC-SR-04 or compatible	Working Voltage : DC 05V working Current : 15mA working frequency 40HZ Range : 1Cm to 4M Effective angle < 15*	40	
47	Grove	Triple Axis accelerometer	3-axis sensing 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	10	
48	Grove	PIR Motion Detector Module	High digital pulse when motion detected Low digital pulse when idle /no motion detected Sensitivity range (upto 6 m) Power supply: 5V – 12V	20	
49	Arduino compatible	Pulse Rate heart sensor	Pulse Rate Sensor Finger Based wore on the finger or earlobe Working voltage 3-5V	4	
50	Arduino compatible	Relay Module	5V 10A 2 Channel Relay Module Compatible with Arduino	20	
	Arduino compatible	Relay Module	5V 10A 1 Channel Relay Module Compatible with Arduino	20	

Package 1: Electronics Development, Robotics, Internet of Things and Sensors					
SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
	Arduino compatible	Big Sound Microphone Module	Large Electret Capsule sound Module	10	
51	Arduino compatible	Soil Moisture Sensor Module	FC-28 with LM293 comparator Operating voltage 3.3V to 5V	6	
52	Arduino compatible	Touch Sensor	Capacitive Touch Sensor Module TTP22X series voltage range 2.4V to 5.5V	6	
53	Arduino compatible	Metal touch sensor module	KY-036 or equivalent Metal Touch Sensor Module	6	
54	Arduino compatible	Rain Drop Sensor	Rain Sensitive, Rain Drop Detection Sensor Module Operating voltage 3.3V to 5.5V Size 5MMX 40MM or equivalent	6	
55	White Label	Flex Sensor	Flex Sensor 2.2 Inches	6	
56	White Label	Temperature Sensor	LM35 full range Temperature Sensor Voltage range 4V to 30V Error +/- 0.5*c	6	
	White Label	Temperature & Humidity sensor Module	DTH 11 Voltage range 3V to 5V	40	
57	White Label	Force Pressure Sensor	Force sensitive resistor with a square, 1.75" x 1.5" sensing area	4	
58	Arduino compatible	Colour Recognition Sensor	TCS3200 Colour Recognition Sensor	4	
59	Arduino compatible	Water Flow Sensor	Arduino Compatible 5V dc Input	4	

Package 1: Electronics Development, Robotics, Internet of Things and Sensors					
SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
60	Arduino compatible	Sound Sensor	Sound Sensor Module, Microphones module	10	
61	Arduino compatible	IR Sensors Array Module for Line Following	8 IR Sensors Array for Line Following operative Voltage:5V	10	
62	Syska	10000 MH 5 volt Power Bank	10000 mAh 5 volt Power Bank	5	
63	Arduino compatible	RFID Reader – Tags	Current: 13-26mA/ DC 3.3V Idle Current: 10-13mA/ DC 3.3V Sleep Current<80uA Peak Current<30mA Operating Frequency: 13.56MHz<30mA Read range between 20 cm to 1 m	10	
64	Grove	RF Modules Tx& Rx 315 MHz ASK	Frequency Range: 433.92/315 MHz Supply Voltage: 3–6 V Output Power:4–16 Dbm Low power consumption Easy application	10	
65	Adafruit	Stepper Motor with Driver board	28BY J-48 ULN2003 5V Stepper motor+ULN2003 Driver Board	10	
66	White Label	DC Motor	12V, DC Gear 150 RPM	20	
67	White Label	Servo motors	Position Servo Angle based Metal Gear	10	
			Small Servo Metal Gear	10	
			Continuous Metal Gear Servo 360	10	
			Small Servo Plastic Gear	40	
68	White Label	150 RPM BO Motor	150 RPM BO motor	10	

Package 1: Electronics Development, Robotics, Internet of Things and Sensors					
SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
69	Arduino compatible	L298P Motor Driver	L298P Motor Driver shield or Relative driver shield	10	
70	Arduino compatible	Servo motor Tester	CCPM 3 channel servo motor tester	4	
75	White Label	Robotics DIY KIT	Robotics DIY kit with Programmable intelligent brain/brick	3	
77	Pro Asia	Mechanical (modular) Construction kit	Metal/Plastic Mechanical Construction kit compatible with Electronic Equipment	5	
79	White Label	STEM Learning Application Kit	Drone kit consist with 1. Outer blade frame 2. Additional blade 3. Lanching stand 4. USB Battery Charger 5. User manual 6. DIY kit	1	
81	White Label		Aerospace Kit (balsa wood kits) 2X propeller based kit 2X Aeromodelling kit 2X Chuck Glider kit	1	
83	Universal Lab	STEM Learning Application Kit	Automobile Kit 1X model for Demonstration of 2 stroke engine working 1X model for Demonstration of 4 stroke engine working	1	
85	Mercury Lab Planners		Bio-medical Kit Blood Group determination kit PH paper testing kit Blood pressure measuring kit	1	
87	Universal		Agritech Kit Soil testing kit	1	

Package 1: Electronics Development, Robotics, Internet of Things and Sensors					
SN	Product Make	Product Name	Description	QTY 60 Students	Product Image
89	Mercury Lab Planners	STEM Learning Application Kit	Bio-tech Kit 1) DNA extraction from cheek cells 2) Lactometer for Milk Adulteration 3) Fingertip pulse oximeter 4) Glucose testing kit	1	
91	Universal		Water/Sanitation Kit Water hardness testing kit	1	
93	Universal		Other potential STEM application Kit 1X DIY Gravity Kit 1X DIY Hydraulics arm kit	1	