

### **TECHNICAL SPECIFICATIONS (Lot A) - Arduino**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Line Item No</b>	<b>Description of Goods or Related Service</b>	<b>Sub Component  (Qty.)</b>	<b>Technical Specifications and Standards</b>			
			<b>Purchaser's Requirements</b>		<b>Bidder's Offer</b>	
			<b>Detail</b>	<b>Priority</b>	<b>Yes(Y)/ No(N)</b>	<b>Remarks</b>
1.	Arduino Uno R3 + USB Cable	1	(Specify)			
2.	800 Full Breadboard x	1	(Specify)			
3.	Red LED 5mm	10	(Specify)			
4.	Green LED 5mm	10	(Specify)			
5.	Blue LED 5mm	10	(Specify)			
6.	RGB LED 5mm	10	(Specify)			
7.	8x8 LED Matrix	10	(Specify)			
8.	LED Bar Graph (RED)	2	(Specify)			
9.	1 Digit 7 Segment Display	1	(Specify)			
10.	4 Digit 7 Segment Display	1	(Specify)			
11.	LCD1602 Display Module	1	(Specify)			
12.	1N4148 Diode	2	(Specify)			
13.	1N4001 Diode	2	(Specify)			
14.	0.1uF Capacitors	2	(Specify)			
15.	10uF Capacitors	2	(Specify)			
16.	Photo resistor	1	(Specify)			

17.	Potentiometers	3	(Specify)			
18.	220Ω Resistor	20	(Specify)			
19.	1kΩ Resistor	20	(Specify)			
20.	10kΩ Resistor	20	(Specify)			
21.	10k Thermistor	20	(Specify)			
22.	Push Button	4	(Specify)			
23.	Vibration Switch	4	(Specify)			
24.	Power Switch	4	(Specify)			
25.	2*AA Battery Holder	2	(Specify)			
26.	9v Battery and DC Jack	2	(Specify)			
27.	ULN2003 Stepper Motor	2	(Specify)			
28.	ULN2003 Stepper Motor Driver	2	(Specify)			
29.	DC Motor	2	(Specify)			
30.	L293d Motor Driver IC	2	(Specify)			
31.	SG90 Servo	2	(Specify)			
32.	4x4 Keypad	2	(Specify)			
33.	NPN Transistor	2	(Specify)			
34.	PNP Transistor	2	(Specify)			
35.	Active Buzzer	2	(Specify)			
36.	Passive Buzzer	2	(Specify)			
37.	5v 1CH Relay	2	(Specify)			

38.	<i>Male Pin header</i>	2	<i>(Specify)</i>			
39.	<i>Female Pin header</i>	2	<i>(Specify)</i>			
40.	<i>74HC595 Shift Register</i>	2	<i>(Specify)</i>			
41.	<i>Infrared Remote / Receiver</i>	2	<i>(Specify)</i>			
42.	<i>General Board</i>	2	<i>(Specify)</i>			
43.	<i>Joystick Module</i>	2	<i>(Specify)</i>			
44.	<i>DHT11 Temperature and Humidity Sensor</i>	2	<i>(Specify)</i>			
45.	<i>MPU6050 Acceleration Sensor</i>	2	<i>(Specify)</i>			
46.	<i>HC-04 Ultrasonic Sensor</i>	2	<i>(Specify)</i>			
47.	<i>Infrared Motion Sensor</i>	2	<i>(Specify)</i>			
48.	<i>Breadboard Power Module</i>	2	<i>(Specify)</i>			
49.	<i>Jumper Wire M/M</i>	200	<i>(Specify)</i>			
50.	<i>Jumper Wire F/F</i>	200	<i>(Specify)</i>			

**TECHNICAL SPECIFICATIONS (Lot B) - Electronic Items**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Line Item No	Description of Goods or Related Service	Sub Component (Qty.)	Technical Specifications and Standards			
			Purchaser's Requirements		Bidder's Offer	
			Detail	Priority	Yes(Y)/ No(N)	Remarks
1.	Soldering iron	1	(Specify)			
2.	Solder wick	1	(Specify)			
3.	Solder reel	1	(Specify)			
4.	Magnetic Telescoping Pick Up Tool	1	(Specify)			
5.	Electronic Voltage Tester	1	(Specify)			
6.	IC extractor	1	(Specify)			
7.	Tweezers Serrated Inside Point	1	(Specify)			
8.	Mini Flashlight	1	(Specify)			
9.	Digital multi meter	1	(Specify)			
10.	soldering gun	1	Temperature Stability: Excellent, Output Power: High 200W / Low 20W, Input Voltage: 220V-240V, Output Temperature: Min 390 Degrees Celsius, Dimensions: portable handheld, Type: Pistol Type of Comfortable Soldering, Two-Stage Heat-Switch System, Power lamp			

11.	soldering sucker	1	(Specify)			
12.	anti-static gloves (pair)	5	(Specify)			
13.	anti-static mat	1	(Specify)			

**TECHNICAL SPECIFICATIONS (Lot C) - Hardware Items**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Line Item No	Description of Goods or Related Service	Sub Component (Qty.)	Technical Specifications and Standards			
			Purchaser's Requirements		Bidder's Offer	
			Detail	Priority	Yes(Y)/ No(N)	Remarks
1.	Mini hammer	1	(Specify)			
2.	Cable ties	20	(Specify)			
3.	Security Bit Group( min 33 Pcs)	1	(Specify)			
4.	Pen knife	1	(Specify)			
5.	Assorted Bits(min 16 pcs)	1	(Specify)			
6.	Screwdriver Set (Min 5 )	1	(Specify)			
7.	Insulated tape	1	(Specify)			
8.	Hand blower	1	(Specify)			

9.	Heat gun	1	(Specify)			
10.	Glue Gun	1	(Specify)			
11.	punch tool	1	(Specify)			
12.	tester	1	(Specify)			
13.	Magnifying glass	1	(Specify)			

**TECHNICAL SPECIFICATIONS (Lot D) - Network Items**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Line Item No	Description of Goods or Related Service	Sub Component (Qty.)	Technical Specifications and Standards			
			Purchaser's Requirements		Bidder's Offer	
			Detail	Priority	Yes(Y)/ No(N)	Remarks
1.	Switch	1	Layer 2 switching with 16 port			
2.	USB Wireless network	1	USB wireless network card			
3.	Crimping tool	1	(Specify)			
4.	Wire cutter	1	(Specify)			
5.	Cable tester	1	(Specify)			
6.	RJ45 connector	1	(Specify)			

7.	network keystone jack	1	(Specify)			
8.	USB to Ethernet connector	1	(Specify)			
9.	USB hub (min 4 ports)	1	(Specify)			
10.	Cat5/6 Rj45 Network Cable Extender Connector	1	(Specify)			

**TECHNICAL SPECIFICATIONS (Lot E) - Computer Accessories**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Line Item No	Description of Goods or Related Service	Sub Component (Qty.)	Technical Specifications and Standards			
			Purchaser's Requirements		Bidder's Offer	
			Detail	Priority	Yes(Y)/ No(N)	Remarks
1.	Heat sink compound	1	(Specify)			
2.	Barcode Reader	1	Scan Element Type: CMOS, Interface Type: USB, Novelty: New, Scanning Light Source: LED, Type: Hand held, Built in Battery: yes (min 1000mAh), Scan Speed: Min 300 times/S, Operating system support: Windows, Linux, Android			
3.	Portable Hard disk (1TB sata)	1	(Specify)			
4.	Presenter	1	Pointer and wireless presenter			
5.	Portable DVD writer	1	CD,DVD, RCD,RDVD			

6.	<i>External SATA IDE Hard Drive (Laptop &amp; PC ) USB Reader</i>	<i>1</i>	<i>USB to SATA / IDE cable, SATA Cable, SATA Power cord, AC Power Adapter(100-240v, 50-60Hz), AC Power cable</i>			
7.	<i>Power supply tester</i>	<i>1</i>	<i>(Specify)</i>			
8.	<i>HDMI to VGA cable</i>	<i>1</i>	<i>(Specify)</i>			
9.	<i>SATA to USB cable</i>	<i>1</i>	<i>(Specify)</i>			