

ARMY PUBLIC SCHOOL FAIZABAD
TENDER FORM FOR PROCUREMENT ITEMS FOR TINKERING LAB

1. The School is interested for procurement of items for Tinkering Lab.
2. Technical Specification of procurement of items for Tinkering Lab is attached as Appendix A.
3. Technical Bid and terms and conditions are attached as Appendix B.
4. Commercial Bid is attached as Appendix C.
5. You are requested to submit your quotation in a sealed envelope and drop in the Box placed at the school office by **1300 hrs on 05 Nov 2021**. The technical specifications for above items are attached as Appendix.
6. The school reserves its right to alter the quantities/items or reject any quotation without assigning any reasons whatsoever.
7. Items are to be supplied against a supply order. Payment will be released by cheque once the items have been received and checked for correctness by a Board of officers.

Yours faithfully

Sd/- xxx
(Signature of Principal)

Appendix 'A'

(Refers to Para 2 of Tender Form)

TECHNICAL SPECIFICATIONS PROCUREMENT FOR TINKERING LAB (Part – A)

SI No.	Name of Components	Specifications/Description
1	Arduino UNO	Hardware development board with Memory and IO ports
2	Arduino Nano	Hardware development board with Memory and IO ports
3	Arduino Mega	Hardware development board with Memory and IO ports
4	Raspberry pi-3 B+	RASPBERRY PI 3 MODEL B + with memory card , cable etc
5	Breadboards 400 pins	Solder less 400 pin breadboard
6	Breadboards 800 pins	Solder less 800 pin breadboard
7	Self Adhesive Proto Shield	Adhesive Proto Shield
8	General Purpose Board (140x90mm)	FR2 A Grade Material (140 x 90 mm)
9	General Purpose Board (80x55mm)	FR2 A Grade Material (80 x 55 mm)
10	LCD 16*2	Dot matrix LCD display with 16 characters x 2 lines
11	Berg Strip (Female) 40 pins	Female Berg Strip 40 pins
12	Berg Strip (Male) 40 pins	Male Berg Strip 40 pins
13	USB Cable (A-B)	USB Cable Set (A to B)
14	USB Cable Set Mini	Mini 12 inches
15	Battery	9V-12V rechargeable Battery
16	Resistor Pack	(0,1.5,4.7,10,47,100,220,330,470,680,1k, 2.2k,3.3k,4.7k,10k,22k,7k,100k,330k,1M) Ohm
17	Capacitor Pack	(10pF,22pF,100pF, 1nF,10nF,100nF,1uF, 10uF,100uF,1000uF) 20 each/kit 1 each
18	Linear Voltage Regulator	7805, 7809 and 7812:: DC-12V 3W
19	Water Pump module 12V	Submersible Water Pump
20	Piezoelectric Plate	Normal Copper based 4 cm Diameter
21	8*8 LED Matrix Module	Max7219 Dot LED Matrix Module Mcu
22	Bluetooth HC05	HC 05 Working voltage 5 Volt
23	7-Segment LED Display	LED 4-Digit Display Module
24	GSM Module	Sim900L Gprs Transfer Board

25	GPS Module	GY-NEO6MV2 new GPS module
26	Laser Diode Module	650Nm 6Mm 5V Dc
27	LDR Module	Photosensitive Ldr Light Sensor Module
28	Keypad 4*4	Universal 16 Key Switch Keypad
29	Joystick Module	Joystick Module for Arduino
30	Buzzer (Small)	Small 5 volt
31	Buzzer (Big)	Big 5 volt
32	L293D Motor Driver Board	L293d
33	Sound PlayBack Module	Voice Board Recording Recorder Playback Module on Board Microphone with Mic
34	BO Motor 12 V	Side Shaft 12V BO Motor
35	Node MCU	WIFI Internet Development Board
36	Wemos D1 R2	LOLIN D1 mini. Wifi boards based ESP-8266EX
37	Vibrating Motor	Small motor for vibarion effect
38	Alligator Connector	Multi-Colour Alligator Connectors
39	Battery Clips with DC jack	9 Volt battery clips with DC Jack
40	Hookup Wires	Red & Black set 100 Meters each
41	Jumper Cable (Male-Male)	40 pin Strip, 20cm length
42	Jumper Cable (Male-Female)	40 pin Strip, 20cm length
43	Jumper Cable (Female-Female)	40 pin Strip, 20cm length
44	RGB LED	Regular 5mm 3-5 volt Range
45	LED (RED)	Regular 5mm 3-5 volt Range
46	LED (GREEN)	Regular 5mm 3-5 volt Range
47	LED (BLUE)	Regular 5mm 3-5 volt Range
48	LED (YELLOW)	Regular 5mm 3-5 volt Range
49	LED (WHITE)	Regular 5mm 3-5 volt Range
50	555 Timer IC	LM555 Timer IC
51	AT-Mega 16A	Individual IC (DIP)
52	Diode & Transistor Set	25 assortment of Diodes and Transistors
53	Push Button Switch	100 button switch set
54	Rocker Switch	100 button switch set
55	Toggle Switch	100 button switch set
56	Capacitive Touch Sensor	MPR121 Module

57	Capacitive Touch Switch	TTP223B, 1 Switch
58	IR Sensor Module	Detection range, detection angle
59	Triple Axis Magnetometer	3-Axis Magneto resistive Sensors, I2C Digital Interface
60	HS-1101	Humidity Sensor
61	Gas Sensor (MQ-2)	Smoke Detection
62	Gas Sensor (MQ-3)	Alcohol - Ethanol Sensor
63	Gas Sensor (MQ-4)	Methane Natural Gas Sensor
64	MQ-5	MQ-5
65	MQ-6	MQ-6
66	Gas Sensor (MQ-7)	High Sensitivity CO Carbon Monoxide Sensor Detector
67	MQ-8	MQ-8
68	Gas Sensor (MQ-135)	MQ-135 Air Quality Sensor
69	IR Transmitter Receiver	TSOP-1738
70	Ultrasonic Sensor Module	Ranging distance Resolution, Working angle & dimension
71	Triple Axis Accelerometer	3-axis sensing Small, Single- supply operation: 1.8V to 3.6V
72	PIR motion Detector Module	Sensitivity range (upto 6 m)
73	Pulse Rate Sensor	Pulse Rate Sensor Finger Basedwore on the finger or earlobe Working voltage 3-5V
74	Relay Module 2-Channel	5V 10A 2 Channel Relay Module
75	Relay Module 1-Channel	5V 10A 1 Channel Relay Module
76	Big sound microphone	Big Sound Electret Module
77	Soil Moisture Sensor Module	Soil Moisture Detection Humidity Sensor Module
78	Touch Sensor Module	TTP224-4 Channel
79	Metal Touch Sensor Module	KY-036
80	Rain Drop Sensor Module	Rain Drop Detection Sensor Module
81	Flex Sensor	Flex Sensor 2.2 inches
82	Temperature Sensor	LM35
83	Temperature & Humidity Sensor	DHT 11 Module
84	Force Pressure Sensor	Force sensitive resistor with a square sensing area
85	Color Recognition Sensor Module	TCS3200 Color Recognition Sensor
86	Water Flow Sensor	Arduino Compatible
87	Sound Sensor	Sound Sensor Module, Microphones
88	IR Sensor Array	IR Sensors Array for Line Following

89	Power Bank (10000 MaH)	REDMI
90	RFID Reader-Tags	Operating Frequency: 13.56MHz<30mA, Read range between 20cm to 1 m
91	RF Transmitter Receiver	RF Module Tx & Rx (315 MHz)
92	Stepper Motor with Driver Board	28BYJ-48 ULN2003 5V Stepper Motor + ULN2003 Driver Board
93	DC Motor	12 V DC Motor 150 RPM
94	Metal Servo Motor	Servo Motor - MG996R
95	Small Metal Servo Motor	Servo Motor - MG995
96	Continuous Servo Motor	Servo Motor - MG90S
97	Micro Servo Motor	Servo Motor - SG90
98	BO Motor	Side Shaft BO Motor & compatible wheels
99	Motor Driver	L298N motor driver Module
101	Robotics DIY Kit	Robotics DIY programming kit
100	Servo Motor Tester	CCPM 3 channel Servo Tester
102	Mechanical Construction Kt	Metal/Plastic Construction DIY kit compatible for attaching electronics
103	Advance Drone kit	DIY Drone With Camera
104	Aeromodelling Kit	For Educational Purpose
105	Automobile Kit - Gear Box	DIY kit for Educational purpose
106	Bio-Medical Kit	Fast learning DIY Aeromodeling Kit
107	Agritech Kit	Fast learning DIY Agri Tech Kit
108	Bio-Tech Kit	Fast learning DIY Bio Tech Kit
109	Water/Sanitation Kit	Water Checking and pollutant removal kit
110	STEM Application Kit	Basic Kit based on STEM Application

Appendix 'A'

(Refers to Para 2 of Tender Form)

TECHNICAL SPECIFICATIONS PROCUREMENT FOR TINKERING LAB (Part – B)

SI No.	Name of Components	Specifications/Description
111	3D printer	Flash Forge Creator pro2
112	UPS	UPS for min. 2 hrs battery back-up
113	3D printer material	1 kg
114	One box	-
115	Set of Arts & Crafts Accessories	Card Board
116	Set of Arts & Crafts Accessories	Foam Core Boards
117	Set of Arts & Crafts Accessories	String
118	Set of Arts & Crafts Accessories	Rubber Band
119	Set of Arts & Crafts Accessories	Popsicle Sticks
120	Set of Arts & Crafts Accessories	Fevicol

Appendix 'A'

(Refers to Para 2 of Tender Form)

TECHNICAL SPECIFICATIONS PROCUREMENT FOR TINKERING LAB (Part – C)

Sl. No.	Name of Components	Specifications/Description
121	Hackshaw Stanley	-
122	Blade large	-
123	Mini hacksaw frame	-
124	Blade mini	-
125	External Straight	-
126	Circlip Plier	-
127	Long Nose Plier	-
128	combination plier	-
129	Wire Stripper Plier plier	-
130	bent nose plier	-
131	Needle Nose	-
132	Tweezer Set	6 Pcs Non-Magnetic tweezer set (generic)
133	Ball pein hammer	-
134	Digital Multi Meter	Mastech
135	Steel shaft claw hammer	Steel shaft
136	C-clamp	-
137	Alllen key set	-
138	Drill machine	-
139	Drilling Workstation	Drill Press, Drill Holder and Rotary Tool, Compatible with Drilling machine provided
140	Combination spanner set	-
141	Vice	-
142	Precision screw driver set	-
143	Adjustable wrench	-
144	Wire Stripper Cutter Plier With Spring	Wire Stripper Cutter Plier With Spring Make Taparia
145	Flexible Cutting Mat	Flexible Cutting Mat (18" X 12")
146	Screw driver set	-

147	Rotatory Multi tool set	Rotary multi tool with all cutting, grinding, polishing, engraving and drill bits
148	Blower 500 watt	-
149	Drill Bit Set	13 PCS
150	File Set 6 Inch	Generic
151	File Set 3 Inch	Generic
152	Plastic Tool Box with Organizer	Alkon ACO 25
153	Glue reg gun round	-
154	Digital Oscilloscope	Minimum Bandwidth 50MHz, Dual Channel
155	Peg board	MDB-500 3ft X 1ft
156	Soldering Kit	Variable Wattage of Soldering Iron
157	Soldering kit: Temp control iron	Soldering Iron Temperature Range : 280-450 C
158	Soldering Kit	De-Soldering Pump, Soldering Flux, braid
159	Soldering Kit	Compatible Soldering Tip
160	Soldering Kit	Soldering Wire
161	DC power Adapter	5V, 2A
162	DC power Adapter	12V, 2A
163	Electric screw driver driving blister	-
164	Heat gun	1800W dual temperature hot air gun
165	Soldering Helping Hand	Helping Hand Held
166	M tape	-
167	Stainless Steel ruler/scale	Stainless Steel 12" / 150 mm Rule
168	Digital Vernier Caliper	150 mm / 6" Digital Vernier Caliper
169	spirit level taparia	-
170	Digital Pen electric Tester	Digital electric tester
171	Fold scope BCK	DIY Paper Microscope Fold scope
172	Telescope	Minimum 700mm focal length/50az
173	Sewing Kit	Semi Automatic sewing machine

Appendix 'A'

(Refers to Para 2 of Tender Form)

TECHNICAL SPECIFICATIONS PROCUREMENT FOR TINKERING LAB (Part – D)

Sno.	Name of Components	Specifications/Description
174	Glue Sticks	11 mm x 200mm Hot Melt Glue Stick
175	Nuts and Bolts and screw	Nuts and Bolts Various Size 20 each Specs - M3X8MM, M3X12MM, M3X20MM,M3X25MM, M4X16MM
176	Cable Tie Small	Cable Tie Small in pack of 100
177	Cable Tie Medium	Cable Tie Medium in pack of 100
178	Cable Tie Big	Cable Tie Big in pack of 100
179	Sand Paper	Various Grit Values - 80, 100, 120, 200, 300
180	Power Strip Adaptors	Standard Quality Extension
181	Bulb Holders	Regular Hanging Bulb holder
182	Electric Wires	Twisted Red black pair (in Metres)
183	USB TO dc jack cable	USB to DC jack cable for Battery bank
184	Standard first aid kit	Standard first Aid Kit with Medicines
185	Fire extinguisher	4KG
186	goggles	Fiber
187	Industrial gloves	Rubber
188	Safety mask	N95

Appendix 'A'

(Refers to Para 2 of Tender Form)

TECHNICAL SPECIFICATIONS PROCUREMENT FOR TINKERING LAB (Part – E)

SI No.	Name of Components	Specifications/Description
189	Main Table	5*2.5 FEET
190	Side Table For Workstation	5*2.5 Feet , With two drawel each
191	Normal Side Table	5*2.5 Feet
192	Side Table for 3d Printer	3*2.5 Feet, With Almirah & Drawel
193	Teacher Table	4*2.5 Feet
194	Chair & Almirah & Rack	30 to 35 Stools with mica on top , Cusion Chairs on side tables 7 to 10 , 2 Almirah , 1 Rack
195	Main Chair	Teacher Table Chair
196	Curtains	Every Window & Door
197	Painting of Wall	Designer Plastic Paint With Primer
198	Tube lights	Syska Or Bajaj
199	Focus Light	Focus light Side Sections
200	Connection Boards	Modular Board , With Complete Fitting
201	Banners	ACP SHEET, Sun board , Wood Framing
202	Decorative Items	Decorative Wooden Piece
203	Exhaust	Fan
204	Extra	Piant on windows , decorative paint on pillers, Mica On Main Door if not available
205	Floor Sheet	Tiles Like Floor Sheet

Appendix 'A'

(Refers to Para 2 of Tender Form)

TECHNICAL SPECIFICATIONS PROCUREMENT FOR TINKERING LAB (Part – F)

Sno.	Name of Components	Specifications/Description
206	Laptop	HP/LENOVO i3 10th gen,1TB HDD , 4GB RAM ,15.6 INCH Display
207	Laptop	HP/LENOVO i3 10th gen,1TB HDD , 4GB RAM ,2GB Graphics15.6 INCH Display
208	Projector	EPSON 33000 Lumen

1. Complete installation on site as per school plan.
2. On site visit during school hours all working days from 1100 hrs to 1300 hrs.
3. Price for each items will be quoted separately for a minimum of two Brands.
4. Prices quoted must be inclusive of all taxes, duties and levies.

Appendix 'B'

(Refers to Para 3 of Tender Form)

TECHNICAL BID

TENDER DOCUMENTS AND TERMS OF CONDITIONS FOR TECHNICAL BID

The following documents and specification will also be submitted with Technical Bid:-

Ser No	Documents/ Features of Items	Document Produced by Vender Yes/No	Remarks
1.	No of years of experience		
2.	IT Return		
3.	List of establishments/organization where your firm is executing supply along with a zerox copy of work order/certificate of satisfactory performance		
4.	Profile of company		
5.	GST/IGST No		
6.	Feature and Specification Brochure for each items and Brand are enclosed		
7.	Terms and conditions accepted or not		

Appendix 'C'

(Refers to Para 4 of Tender Form)

COMMERCIAL BID

**COMMERCIAL BID FOR PROCUREMENT AND INSTALLATION
FOR TINKERING LAB**

Ser No	Make/ Model	Specification	Unit Price incl all taxes & duties	Total Price incl all taxes & duties
1.	Brand (Write Brand name and model of equipment offered)			
2.	-do-			
3.	-do-			
4.	-do-			
5.	-do-			
6.	-do-			
7.	-do-			

1. Complete installation on site as per school plan.
2. Price for each items quoted separately.
3. Prices quoted inclusive of all taxes, duties and levies.