



**DOST-ASTI Bids and Awards Committee
REQUEST FOR QUOTATION**

Kind of Procurement Activity:	Negotiated Procurement:Small-value Procurement		
Deadline of Submission of Bids:	Jun-07-2022, 2:00 PM		
RFQ No.:	22-06-3889	Date:	June-02-2022
PR No.:	GAA-22-05-13759	Date:	May-11-2022

The Department of Science and Technology (DOST) - Advanced Science and Technology Institute (ASTI), through its Bids and Awards Committee (BAC), intends to procure the enlisted item/s below. Bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, except otherwise specified in the requirements. Award may be considered for prospective bidder/s proven to be the single/lowest calculated and responsive quotation among all other quotations. Guidelines on the format of quotations and eligibility documents are listed below. Kindly follow the prescribed GUIDELINES to avoid DISQUALIFICATION.

Quotations may be submitted 1) manually to the BAC Secretariat at G/F DOST-ASTI Bldg., UP Technology Park Complex, CP Garcia Ave., UP Campus, Diliman, Quezon City or 2) sent via electronic mail at bac-sec@asti.dost.gov.ph. For further information, please contact the BAC Secretariat at +63 2 8249-8500 loc. 1206/1212.

Thank you.

BAYANI BENJAMIN R. LARA
BAC Chairperson

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<p>Edge Computing Development Board</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Edge Computing Development Board.</p> <p>2. Technical Specifications</p> <p>2.1. Module: NVIDIA JETSON XAVIER NX or better</p> <p>2.2. AI Performance: at least 21 TOPs(INT8)</p> <p>2.3. OS: JetPack 4.4 or better</p> <p>2.4. CPU: at least 6-core 64-bit CPU, Carmel ARMv8.2 or better</p> <p>2.5. GPU: at least 384-core Volta GPU or better</p> <p>2.6. Memory: at least 8 GB 128-bit LPDDR4x 59.7GB/s</p> <p>2.7. Module Storage: at least 16 GB eMMC 5.1</p> <p>2.8. Carrier Board Storage: at least 256GB SATA</p> <p>2.9. Wifi: Pre-installed M.2 E Wifi or better</p> <p>2.10. Power: 19V DC</p> <p>2.11. Display: 1* HDMI / 1* DP, 1 * OLED screen</p> <p>2.12. USB: at least 4* USB3.0(USB 2.0 Integrated), at least 1*USB Type C</p> <p>2.13. Network: 2* Gigabit Lan</p> <p>2.14. Dimension: 205mm x 130mm x 65mm</p> <p>2.15. Key features</p>	1	pc	80500.00	80,500.00

- 2.15.1. Whole Black Aluminium Frame
- 2.15.2. Big passive dissipation
- 2.15.3. OLED screen
- 2.16. Reference application: Industry IoT, Harsh environment applications, etc.
- 2.17. Additional Module Technical Specifications
 - 2.17.1. PCIe: at least 1 x1 (PCIe Gen3) + 1 x4 (PCIe Gen4), total 144 GT/s
 - 2.17.2. CSI Camera: Up to 6 cameras (24 via virtual channels), 12 lanes (3x4 or 6x2) MIPI CSI-2, D-PHY 1.2 (up to 30 Gbps)
 - 2.17.3. Video Encode: up to 2x 4K60 | 4x 4K30 | 10x 1080p60 | 22x 1080p30 (H.265) and 2x 4K60 | 4x 4K30 | 10x 1080p60 | 20x 1080p30 (H.264)
 - 2.17.4. Video Decode: up to 2x 8K30 | 6x 4K60 | 12x 4K30 | 22x 1080p60 | 44x 1080p30 (H.265), 2x 4K60 | 6x 4K30 | 10x 1080p60 | 22x 1080p30 (H.264)
 - 2.17.5. Display: at least 2 multi-mode DP 1.4/eDP 1.4/HDMI 2.0
 - 2.17.6. DL Accelerator: 2x NVDLA Engines or better
 - 2.17.7. Vision Accelerator: 7-Way VLIW Vision Processor or better
 - 2.17.8. Networking: at least 10/100/1000 BASE-T Ethernet
 - 2.17.9. Mechanical: 69.6 mm x 45 mm, 260-pin SO-DIMM connector
- 2.18. Additional Carrier Board Specifications
 - 2.18.1. USB: 4x USB 3.0 Type A (Integrated USB 2.0), 1x USB 2.0 Type C(Support OTG)
 - 2.18.2. SATA: Pre-installed 256GB 2.5 inch SATA SSD
 - 2.18.3. USB WIFI Mode: Pre-installed Wifi module (802.11ac and 2.4/5G ITIR mode with support of 433Mbps PHY rate)
 - 2.18.4. CSI Camera : at least 6 x Camera (MIPI CSI-2)
 - 2.18.5. TF_Card: at least 1 x TF_Card
 - 2.18.6. Audio: 1 x Audio Jack, 2 x Microphone, 2 x Speaker(1W)
 - 2.18.7. SPI Bus: at least 1 x SPI Bus(+3.3V Level)
 - 2.18.8. FAN: at least 2 x Fan(12V/5V),1 x FAN(5V PWM)
 - 2.18.9. CAN: 1 x CAN
 - 2.18.10. Miscellaneous
 - 2.18.10.1. 1 x System Control
 - 2.18.10.2. 1 x Power Control
 - 2.18.10.3. 2x I2C Link (+3.3V I/O)
 - 2.18.10.4. 1 x UART(+3.3V Level)
 - 2.18.10.5. 2 x GPIO(+3.3V Level)
 - 2.18.10.6. 2 x SPI Bus(+3.3V Level)
 - 2.18.10.7. 1 x LED State
 - 2.18.11. Power Requirements: +13V to +19V DC Input @ 8A
 - 2.18.12. Operating Temperature: -25° to +80°
- 3. Warranty
 - 3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.
 - 3.2. Defective and incorrect items shall be replaced.
 - 3.3. Warranty Period: at least one year.
- 4. Payment and Delivery Terms
 - 4.1. Price is inclusive of government taxes, delivery, etc.
 - 4.2. Delivery: 60 days upon issuance of NTP.

2	<p>Edge Computing Development Board</p> <ol style="list-style-type: none"> 1. Objective <ol style="list-style-type: none"> 1.1. Item will be part of the prototype unit of the project. 1.2. The specifications written here are of minimum requirements, unless otherwise stated. 1.3. Scope of service: supply and delivery of Edge Computing Development Board. 2. Technical Specifications <ol style="list-style-type: none"> 2.1. Module: NVIDIA JETSON XAVIER NX or better 2.2. AI Performance: at least 21 TOPs(INT8) 2.3. OS: JetPack 4.6 or better 2.4. CPU: at least 6-core 64-bit CPU, Carmel ARMv8.2 or better 2.5. GPU: at least 384-core Volta GPU or better 2.6. Memory: at least 8 GB 128-bit LPDDR4x 59.7GB/s 2.7. Module Storage: at least 16 GB eMMC 5.1 2.8. Carrier Board Storage: at least 128GB M.2 NVME SSD 2.9. Wifi: Pre-installed M.2 E Wifi or better 2.10. Power: 19V DC 2.11. Display: 1* HDMI / 1* DP 2.12. USB: at least 4* USB3.0(USB 2.0 Integrated), at least 1*Micro USB 2.13. Network: 1* Gigabit Lan 2.14. Dimension: 130mm x120mm x 50mm 2.15. Key features <ol style="list-style-type: none"> 2.15.1. Blue Aluminum Case 2.15.2. Removable transparent Cover 2.15.3. Mounting hole design 2.16. Reference application: Indoor AIoT, Home development, etc. 2.17. Additional Module Technical Specifications <ol style="list-style-type: none"> 2.17.1. PCIe: at least 1 x1 (PCIe Gen3) + 1 x4 (PCIe Gen4), total 144 GT/s 2.17.2. CSI Camera: Up to 6 cameras (24 via virtual channels), 12 lanes (3x4 or 6x2) MIPI CSI-2, D-PHY 1.2 (up to 30 Gbps) 2.17.3. Video Encode: up to 2x 4K60 4x 4K30 10x 1080p60 22x 1080p30 (H.265) and 2x 4K60 4x 4K30 10x 1080p60 20x 1080p30 (H.264) 2.17.4. Video Decode: up to 2x 8K30 6x 4K60 12x 4K30 22x 1080p60 44x 1080p30 (H.265), 2x 4K60 6x 4K30 10x 1080p60 22x 1080p30 (H.264) 2.17.5. Display: at least 2 multi-mode DP 1.4/eDP 1.4/HDMI 2.0 2.17.6. DL Accelerator: 2x NVDLA Engines or better 2.17.7. Vision Accelerator: 7-Way VLIW Vision Processor or better 2.17.8. Networking: at least 10/100/1000 BASE-T Ethernet 2.17.9. Mechanical: 69.6 mm x 45 mm, 260-pin SO-DIMM connector 2.18. Additional Carrier Board Specifications <ol style="list-style-type: none"> 2.18.1. HDMI Port: at least 1* HDMI / 1* DP 2.18.2. USB 3.0 Type A: at least 4*USB 3.0 Type A Connector 2.18.3. Ethernet: at least 1*RJ45 Gigabit Ethernet Connector (10/100/1000) 2.18.4. DC Power: 1*DC Input Power TE Connector 2.18.5. FAN Connect: 1*Picoblade Header 2.18.6. M.2 KEY E 2230: Pre-installed Wifi module 	1	pc	65000.00	65,000.00
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	<p>(802.11ac, Dual Band, 80MHZ, MU-MIMO & Bluetooth 4.2)</p> <p>2.18.7. CSI Camera Connect: 2*CSI Camera (15 pos, 1mm pitch, MIPI CSI-2)</p> <p>2.18.8. Multifunctional port: 2.0 Pitch 40 PIN</p> <p>2.18.9. M.2 KEY M 2280: Pre-installed 128GB NVME SSD</p> <p>2.18.10. Nano/NX/TX2 NX connector: 1* SODIMM connector, 260-pin</p> <p>2.18.11. CAN: 1*CAN Bus Header (1x4, 2.54mm pitch, RA)</p> <p>2.18.12. Button Header: 1*Button Header (1x12, 2.54mm pitch, RA)</p> <p>2.18.13. USB Micro Type B: 1*USB Micro B, RA Female</p> <p>2.18.14. RTC: 1*RTC Back-up Coin Cell Socket (CR1225)</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
3	<p>Mobile Robot Ball Roller Wheel</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Mobile Robot Ball Roller Wheel.</p> <p>2. Technical Specifications</p> <p>2.1. Flange Ball Roller Wheel</p> <p>2.2. BCHY69 Standard or equivalent</p> <p>2.3. Flange Mounted</p> <p>2.4. Material: 304 Stainless Steel</p> <p>2.5. Diameter: 25mm(1")</p> <p>2.6. Load capacity: at least 25kgs</p> <p>2.7. Quantity: 4pcs per pack</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	5	pack	1150.00	5,750.00
4	<p>Display - 5"</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of 5" Touchscreen Display Module.</p> <p>2. Technical Specifications</p> <p>2.1. Touchscreen Display Module for Raspberry Pi</p>	2	pc	5390.00	10,780.00

	<p>2.2. Capacitive Touchscreen, Support 5 TouchPoints 2.3. Raspberry Pi DSI Direct Driver 2.4. Operating Voltage: 3.3V (Supplied by Raspberry Pi display interface) 2.5. The Maximum Operating Current: 320mA 2.6. Screen-off Current: 100mA 2.7. Resolution: 800*480 2.8. Video Interface: Raspberry Pi DSI 2.9. Number of Touch Points: 5 2.10. Viewing Angle: 60°/70°/70°/70° 2.11. RGB888-16 Mega True Color 2.12. Refresh Frequency: 60Hz 2.13. Luminous Efficiency: 280 cd/m2 2.14. Operating Temperature: -20°C~70°C 2.15. Dimension: 121mm×76mm / 4.76" × 2.99" 2.16. Mounting Hole Size: M2.5 2.17. Outside Mounting Hole Position: 113mm × 68mm/ 4.45" × 2.68" 2.18. Inside Mounting Hole Position: 58mm x 49mm/ 2.28" x 1.93" 2.19. Genuine product 3. Warranty 3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues. 3.2. Defective and incorrect items shall be replaced. 3.3. Warranty Period: at least one year. 4. Payment and Delivery Terms 4.1. Price is inclusive of government taxes, delivery, etc. 4.2. Delivery: 60 days upon issuance of NTP.</p>				
5	<p>UPS Module 1. Objective 1.1. Item will be part of the prototype unit of the project. 1.2. The specifications written here are of minimum requirements, unless otherwise stated. 1.3. Scope of service: supply and delivery of UPS Modules for Raspberry Pi. 2. Technical Specifications 2.1. Standard Raspberry Pi extension interface, compatible with other expansion boards 2.2. Auto switching of charge/recharge path 2.3. On-board 5 LEDs for showing the batteries' status 2.4. On-board Maxim fuel gauge IC 2.5. Support reading battery information via I2C communication 2.6. Lithium battery charge/discharge protection and over-heating protection 2.7. Anti-backflow mainboard power source 2.8. Supply Voltage: 4.5~5.5V 2.9. Supply Current: recommend using adapter with power of 2A and above) 2.10. Power Supply Interface: Micro-USB 2.11. Maximum Charge Current: 1.6A 2.12. Battery Interface: PH2.0-2P or solderable contact 2.13. Battery: 3.7 Lithium Battery 2.14. Output Voltage: 5V 2.15. Maximum Output Current: 2A 2.16. Communication Interface: I2C 2.17. Dimension: 65mmx56mm/2.56"x2.20" 2.18. Mounting Hole Size: 58mmx49mm/2.28"x1.93"</p>	2	pc	1870.00	3,740.00

	<p>2.19. Operating Temperature: -40°C~85°C"</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
6	<p>Triangle Ruler</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Triangle Ruler.</p> <p>2. Technical Specifications</p> <p>2.1. Material: Aluminum</p> <p>2.2. Size : 18x18x2cm</p> <p>2.3. Measuring range: 180-256mm</p> <p>2.4. Product weight: 130g</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	1	pc	316.25	316.25
7	<p>Precision Screwdriver Repair Kit</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Precision Screwdriver Repair Kit.</p> <p>2. Technical Specifications</p> <p>2.1. 115 in 1 Precision Screwdriver Repair</p> <p>2.2. High hardness, high accuracy</p> <p>2.3. Anti-static handle</p> <p>2.4. Magnetic heads</p> <p>2.5. Easy to carry plastic box</p> <p>2.6. Hexagonal bits</p> <p>2.6.1. ⊕ 2 x PH0000, 2 x PH000, 2 x PH00, 2 x PH0, 2 x PH1, 2 x PH2</p> <p>2.6.2. ⊖ SL1.0, 2 x SL1.5, 2 x SL2.0, 2 x SL2.5, 2 x SL3.0, SL3.5, SL4.0</p> <p>2.6.3. ⊕ T1, 2 x T2, 2 x T3, 2 x T4, 2 x T5, T6, T7, T8, T9, T10, T15, T20</p> <p>2.6.4. T6H, T7H, T8H, T9H, T10H, T15H, T20H</p> <p>2.6.5. ☐ 2 x P2 [☐0.8], 2 x P5 [☐1.2], P6 [☐1.5], P8 [☐2.0]</p> <p>2.6.6. ☐ H0.7, H0.9, H1.3, H1.5, H2.0, H2.5, H3.0, H3.5, H4.0, H4.5, H5, H6</p> <p>2.6.7. ▲ △2.0, △2.3, △2.6, 3.0</p> <p>2.6.8. 2 x Y0.6, Y2.0, Y2.5, Y3.0</p> <p>2.6.9. PZ00, PZ0, PZ1, PZ2</p>	1	set	852.50	852.50

	<p>2.6.10. 2 x U2.6, 2 x U3.0, U8</p> <p>2.6.11. S0, S1, S2</p> <p>2.6.12. W2.0, W2.0</p> <p>2.6.13. · 0.8, 1.0</p> <p>2.6.14. ☐ M2.5, M3.0, M3.5, M4.0, M4.5, M5.0, M5.5</p> <p>2.6.15. PH2</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
8	<p>Screw Extractor Kit</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Screw Extractor Kit.</p> <p>2. Technical Specifications</p> <p>2.1. Screw Extractor Kit</p> <p>2.2. Material: HSS</p> <p>2.3. 22pc kit with case, extension bit holder, socket adapter, various sizes of drill and extractor bits (1.3mm to 5.9mm)</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	1	set	770.00	770.00
9	<p>Soldering Iron Tip Cleaner - Brass Sponge</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Brass Sponge Soldering Iron Tip Cleaner.</p> <p>2. Technical Specifications</p> <p>2.1. Brass Sponge Soldering Tip Cleaner</p> <p>2.2. Material: Brass</p> <p>2.3. Product Weight: 0.019kg</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	5	pc	137.50	687.50
10	<p>Soldering Iron Tip Cleaner - Rosin</p>	2	pc	233.75	467.50

	<p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Rosin-based Soldering Iron Tip Cleaner.</p> <p>2. Technical Specifications</p> <p>2.1. Rosin-based Soldering Iron Tip Cleaner</p> <p>2.2. Includes brass sponge</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
11	<p>Soldering Iron Tip Tinner</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Soldering Iron Tip Tinner.</p> <p>2. Technical Specifications</p> <p>2.1. Removes the oxidized black layer of the soldering tip</p> <p>2.2. Makes the tips last longer and conduct a more even heat</p> <p>2.3. No diammonium phosphate, no damage to a circuit board</p> <p>2.4. Environmentally friendly and non-toxic</p> <p>2.5. Material: calcium phosphate, tin powder</p> <p>2.6. Size: approx. 3.5x3.5x2.8cm/ 1.38x1.38x1.1inch</p> <p>2.7. Wieght: 35g</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	3	pc	357.50	1,072.50
12	<p>Isopropyl Alcohol - 99%</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of 99% Isopropyl Alcohol.</p> <p>2. Technical Specifications</p> <p>2.1. 99% Isopropyl Alcohol</p> <p>2.2. Industrial Solvent</p> <p>2.3. Volume: 4 Liters</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p>	1	btl	1100.00	1,100.00

	<p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
13	<p>Wiring Harness Tape</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Wiring Harness Tape.</p> <p>2. Technical Specifications</p> <p>2.1. Wiring harness tape</p> <p>2.2. Colour: Black</p> <p>2.3. Dimensions: 15m x 25mm</p> <p>2.4. Waterproof, anti-aging, shock absorption, high temperature</p> <p>2.5. Working temperature: -60 to 150 degrees celcius</p> <p>2.6. Materials: cotton flannel and strong adhesive glue</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	2	roll	220.00	440.00
14	<p>Mesh Wiring Harness</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Mesh Wiring Harness.</p> <p>2. Technical Specifications</p> <p>2.1. Diameter: 16mm</p> <p>2.2. Length: 5m</p> <p>2.3. Material: PET (Polyethylene terephthalate)</p> <p>2.4. Color: Black</p> <p>2.5. Self-Locking Design</p> <p>2.6. Resistant to wear and animal bites</p> <p>2.7. Protects and prolongs the life of cables</p> <p>2.8. Fire Resistant: Made of flame retardant PET, flame retardant UL94 V-2 grade, heat resistant up to 240 ± 10°C</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	2	roll	742.50	1,485.00
15	<p>Rubber Air Pump</p>	2	pc	176.00	352.00

	<p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Rubber Air Pump.</p> <p>2. Technical Specifications</p> <p>2.1. Natural and environmentally-friendly rubber</p> <p>2.2. Air inlet valve design prevents air stream air tube</p> <p>2.3. Detachable super air stream air tube</p> <p>2.4. Material: Rubber & metal</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
16	<p>Hot Bed Insulation</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Hot Bed Insulation.</p> <p>2. Technical Specifications</p> <p>2.1. Designed for 3D printer hot bed, compatible with Ender 3 / Pro</p> <p>2.2. Closed-cell elastic material has low thermal conductivity</p> <p>2.3. Temperature: - 50°C to 150°C (-58°F~302°F)</p> <p>2.4. Dimension: 220x220x10mm</p> <p>2.5. Quantity: 2pcs per pack</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	1	pack	528.00	528.00
17	<p>Hot Bed Silicone Spacer</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Hot Bed Silicone Spacer.</p> <p>2. Technical Specifications</p> <p>2.1. Silicone solid spacer and wire retainer</p> <p>2.2. Compatible with Ender 3 printer hotbed</p> <p>2.3. Can replace the original heated bed springs</p> <p>2.4. Withstand temperatures up to 200 degrees</p> <p>2.5. Color: Black</p> <p>2.6. Material: Silicone + Plastic</p> <p>2.7. Diameter: 15mm/0.59in(Outer); 4mm/0.16in(inner)</p>	2	pack	412.50	825.00

	<p>2.8. Height: 18mm(0.71in); 16mm(0.63in)</p> <p>2.9. Package Size: 11.5x9x2.5cm / 4.5x3.5x1.0in</p> <p>2.10. Package Weight: 25g/0.88oz</p> <p>2.11. Contents</p> <p>2.11.1. 3pcs 18mm spacer</p> <p>2.11.2. 1pc 16mm spacer</p> <p>2.11.3. 1 x Wire Retainer</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
18	<p>Bowden Tubing Kit</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Bowden Tubing Kit.</p> <p>2. Technical Specifications</p> <p>2.1. Premium XS Bowden Kit for Ender 3</p> <p>2.2. Bowden PTFE tubing with lowest friction on the market</p> <p>2.3. Inner Diameter (mm): 1.90 +/- 0.05</p> <p>2.4. Outer Diameter (mm): 3.95 +/- 0.05</p> <p>2.5. Melting Point: up to 340 Celsius</p> <p>2.6. Material: metal, PTFE, brass</p> <p>2.7. Package Contents</p> <p>2.7.1. 1 x 2m Premium XS bowden Tubing</p> <p>2.7.2. 1 x PTFE Teflon Tube Cutter</p> <p>2.7.3. 2 x PC4-M6 pneumatic fittings</p> <p>2.7.4. 2 x PC4-M10 pneumatic fittings</p> <p>2.7.5. 2 x MK8 socks</p> <p>2.7.6. 2 x Nozzles</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	2	set	605.00	1,210.00
19	<p>Pneumatic Fitting</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Pneumatic Fitting.</p> <p>2. Technical Specifications</p> <p>2.1. Pneumatic Fitting compatible with Ender 3 and Ender 3 Pro</p> <p>2.2. PC4-M6 pneumatic fitting</p> <p>2.2.1. Inner diameter(blue end): 4mm</p>	1	pack	1210.00	1,210.00

	<p>2.2.2. Thread: 6 mm</p> <p>2.2.3. Material: copper and plastic</p> <p>2.3. PC4-M10 pneumatic fitting</p> <p>2.3.1. Inner diameter(black end): 4mm</p> <p>2.3.2. Thread: 10 mm</p> <p>2.3.3. Material: stainless steel and plastic</p> <p>2.4 Metal teeth</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
20	<p>Belt Tensioner - 2020</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Belt Tensioner - 2020.</p> <p>2. Technical Specifications</p> <p>2.1. Belt Tensioner for X-Axis</p> <p>2.2. Compatible with Ender 3 and Ender 3 Pro</p> <p>2.3. Profile: 2020</p> <p>2.4. Material: Anodized Aluminum Alloy</p> <p>2.5. Color: Black</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	2	pc	924.00	1,848.00
21	<p>Belt Tensioner - 2040</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Belt Tensioner - 2040.</p> <p>2. Technical Specifications</p> <p>2.1. Belt Tensioner for Y-Axis</p> <p>2.2. Compatible with Ender 3</p> <p>2.3. Profile: 2040</p> <p>2.4. Material: Anodized Aluminum Alloy</p> <p>2.5. Color: Black</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p>	1	pc	693.00	693.00

	4.2. Delivery: 60 days upon issuance of NTP.				
22	<p>Belt Tensioner - 4040</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Belt Tensioner - 4040.</p> <p>2. Technical Specifications</p> <p>2.1. Belt Tensioner for Y-Axis</p> <p>2.2. Compatible with Ender 3 Pro</p> <p>2.3. Profile: 4040</p> <p>2.4. Material: Anodized Aluminum Alloy</p> <p>2.5. Color: Black</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	1	pc	940.50	940.50
23	<p>DC Fan - 4020</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of DC Fan - 4020.</p> <p>2. Technical Specifications</p> <p>2.1. Cooling Fan compatible with Ender 3 and Ender 3 Pro</p> <p>2.2. Genuine Product</p> <p>2.3. Type: Axial</p> <p>2.4. Material: Plastic</p> <p>2.5. Voltage: DC 24V</p> <p>2.6. Weight: 0.078kg</p> <p>2.7. Size: 4020</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	4	pc	288.75	1,155.00
24	<p>DC Fan - 5015</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of DC Fan - 5015.</p> <p>2. Technical Specifications</p> <p>2.1. Cooling fan</p> <p>2.2. Type: Blower/Centrifugal</p>	4	pack	412.50	1,650.00

	<p>2.3. Bearing: Dual Ball Bearing 2.4. Size: 5015 2.5. Cable length: 1m 2.6. Weight: 27g 2.7. Voltage: 24V 2.8. Current: 0.1A 2.9. Speed: at least 5000RPM 2.10. Life: at least 50,000 hours 2.11. Connector: XH2.54 – 11.8in(300mm) 2.12. Air Pressure: 1.1inH₂O 2.13. Airflow: at least 4.43CFM 2.14. Noise: at most 36.7dBA 2.15. Quantity: 2pcs per pack</p> <p>3. Warranty 3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues. 3.2. Defective and incorrect items shall be replaced. 3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms 4.1. Price is inclusive of government taxes, delivery, etc. 4.2. Delivery: 60 days upon issuance of NTP.</p>				
25	<p>DC Fan - 8025 1. Objective 1.1. Item will be part of the prototype unit of the project. 1.2. The specifications written here are of minimum requirements, unless otherwise stated. 1.3. Scope of service: supply and delivery of DC Fan - 8025.</p> <p>2. Technical Specifications 2.1. Cooling fan 2.2. Type: Axial 2.3. Bearing: Dual Ball Bearing 2.4. Size: 8025 2.5. Weight: 75g per piece 2.6. Voltage: 24V 2.7. Current: 0.2A 2.8. Speed: at least 4500RPM 2.9. Life: at least 50,000 hours 2.10. Connector: XH2.54 2.11. Cable Length: at least 30cm 2.12. Air Pressure: at least 0.47inH₂O 2.13. Airflow: at least 59CFM 2.14. Noise: at most 43.2dBA 2.15. Quantity: 2pcs per pack</p> <p>3. Warranty 3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues. 3.2. Defective and incorrect items shall be replaced. 3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms 4.1. Price is inclusive of government taxes, delivery, etc. 4.2. Delivery: 60 days upon issuance of NTP.</p>	2	pack	2500.00	5,000.00
26	<p>MicroSD Card Extension Cable 1. Objective 1.1. Item will be part of the prototype unit of the project. 1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p>	5	pc	346.50	1,732.50

	<p>1.3. Scope of service: supply and delivery of MicroSD Card Extension Cable.</p> <p>2. Technical Specifications</p> <p>2.1. microSD Card Extension Cable</p> <p>2.2. Material: Plastic + FFC</p> <p>2.3. Interface Type: TF/microSD</p> <p>2.4. Cable Length: Approx. 48cm / 18.9in</p> <p>2.5. Cable Width: Approx. 2cm / 0.8in</p> <p>2.6. Weight: Approx. 13g</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
27	<p>MicroSD Card</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of MicroSD Card.</p> <p>2. Technical Specifications</p> <p>2.1. MicroSD Card</p> <p>2.2. Performance class: at least A1</p> <p>2.3. UHS Speed Class: at least U1</p> <p>2.4. Speed Class: at least 10</p> <p>2.5. Storage Capacity: at least 128GB</p> <p>2.6. Card Type: microSDXC</p> <p>2.7. Data Transfer: Read Speed up to 120 MB/s</p> <p>2.8. Waterproof, Temperature, X-Ray, and Shock-Proof</p> <p>2.9. Genuine product</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	10	pc	687.50	6,875.00
28	<p>3D Printer Enclosure</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of 3D Printer Enclosure.</p> <p>2. Technical Specifications</p> <p>2.1. Compatibility: Ender 3 3D Printer/Ender 3 PRO/Ender 5 3D Printer</p> <p>2.2. Function: Constant temperature / Soundproof / Dustproof</p> <p>2.3. Internal Dimension: 445X565x685mm</p> <p>2.4. Dimension: 495x615x735mm</p> <p>2.5. Metal pipes diameter: 16mm</p>	2	pc	4180.00	8,360.00

	<p>2.6. Package Includes:</p> <p>2.6.1. 440 metal pipes x 4</p> <p>2.6.2. 560 metal pipes x 4</p> <p>2.6.3. 645 metal pipes x 4</p> <p>2.6.4. fixed-angle bracket x 8</p> <p>2.6.5. folding shed x 1</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
29	<p>3D Printer Motherboard</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of 3D Printer Motherboard.</p> <p>2. Technical Specifications</p> <p>2.1. Compatibility: Ender 3/ender 3 pro/ender 5/ender 5 pro/CR-10 3D printer</p> <p>2.2. Supports BLTouch, RGB lights, blocking detection, shutdown function, TFT35 E3 V3.0/TFT35 V3.0/TFT28 V3.0 touch screen as well as original 12864 LCD of Ender 3</p> <p>2.3. Superior Heat Dissipation Performance: equipped with a large Aluminum heat sink of stepper motor driver instead of pieces small heat sink, this design is able to increase the heat dissipation performance of the motherboard by 20% which greatly strengthen the heat dissipation capacity of the driver totally.</p> <p>2.4. Firmware Update: Compatible with Marlin and Klipper firmware.</p> <p>2.5. Stepper motor driver: TMC2209, generates lower heat and it has a large-area cooling position to lower the temperature when driver working. Also adopts stealthChop2 Mute technology which reduces motor noise to the point of silence at low velocities to ensures noiseless operation, maximum efficiency and best motor torque.</p> <p>2.6. Control chip: STM32G0B1RET6 ARM Cortex-M0+ or better</p> <p>2.7. Interface: Micro USB</p> <p>2.8. Controlled Fan: 3</p> <p>2.9. SPI Output Power: 3.3V/5V</p> <p>2.10. Package Dimensions: 5.35 x 5.04 x 1.5 inches (13.6 x 12.8 x 3.8 cm)</p> <p>2.11. Item Weight: 4.8 ounces (136.08 grams)</p> <p>2.12. Includes</p> <p>2.12.1. Control Board x1 (latest version)</p> <p>2.12.2. Heatsink x1</p> <p>2.12.3. USB Cable x1</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p>	1	pc	4180.00	4,180.00

	<p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
30	<p>3D Printer Nozzle and Cleaning Kit</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of 3D Printer Nozzle and Cleaning Kit.</p> <p>2. Technical Specifications</p> <p>2.1. 3D Printer Nozzle and Cleaning Kit</p> <p>2.2. Compatible with Creality Ender 3</p> <p>2.3. Material: brass</p> <p>2.4. Hexagon diameter: 6 mm</p> <p>2.5. Screw thread: M6</p> <p>2.6. Package contents:</p> <p>2.6.1. 10 x 0.35 nozzle cleaning needle</p> <p>2.6.2. 10 x MK8 0.4mm brass nozzle</p> <p>2.6.3. 1 x Needle tube</p> <p>2.6.4. 1 x Curved Tweezer</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	4	pack	357.50	1,430.00
31	<p>Servo Motor Heatsink</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Motor Heatsink.</p> <p>2. Technical Specifications</p> <p>2.1. Reduces heat generated during motor use and improves motor performance</p> <p>2.2. Size: 40 x 40 mm</p> <p>2.3. With strong adhesive</p> <p>2.4. Compatible with Nema17 Stepper Motor</p> <p>2.5. 10 pcs per pack</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	2	pack	1500.00	3,000.00
32	<p>Heatblock Sock</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p>	3	pack	330.00	990.00

	<p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Heatblock Sock.</p> <p>2. Technical Specifications</p> <p>2.1. Made of non-stick silicone material, durable and high temperature resistant.</p> <p>2.2. Helps to keep the hot end temperature extremely stable.</p> <p>2.3. Can extend the life of the heater block and extruder by keeping it cleaner.</p> <p>2.4. Material: Silicone</p> <p>2.5. Quantity: 4pcs per pack</p> <p>2.6. Color: Black</p> <p>2.7. Package Size: 10 x 10 x 1cm/4 x 4 x 0.4in</p> <p>2.8. Package Weight: 12g/0.4oz</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
33	<p>Hotend Kit</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Hotend Kit.</p> <p>2. Technical Specifications</p> <p>2.1. Assembled Hotend Kit</p> <p>2.2. Material: Metal</p> <p>2.3. Compatible with: CR-.10, CR10, CR10S, Enders 3, Enders 3 pro, Enders 5</p> <p>2.4. Includes</p> <p>2.4.1. 3 x Hotend Assembly</p> <p>2.4.2. 9 x 0.4mm MK8 Nozzle</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	1	set	1430.00	1,430.00
34	<p>Heat Break - Bimetal</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Heat Break - Bimetal.</p> <p>2. Technical Specifications</p> <p>2.1. Heat break compatible with Ender 3 and Ender 3 Pro</p>	3	pc	3500.00	10,500.00

	<p>2.2. Bimetallic Heat Break</p> <p>2.3. Rated to 450 °C</p> <p>2.4. Covers the gamut of printable thermoplastics</p> <p>2.5. Eliminates Heat Creep</p> <p>2.6. For M6x1.0 threaded heat blocks</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
35	<p>All-Metal Extruder</p> <p>1. Objective</p> <p>1.1. Item will be part of the prototype unit of the project.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of All-Metal Extruder.</p> <p>2. Technical Specifications</p> <p>2.1. Double Gear Extrusion Mechanism</p> <p>2.2. All-metal aluminum alloy</p> <p>2.3. High quality dual gear extrusion</p> <p>2.4. Compatibility: Ender 3 / Pro</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	2	pc	825.00	1,650.00
36	<p>POM Guide Rollers</p> <p>1. Objective</p> <p>1.1. Item is an expendable accessory for a 3D printer.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of POM Guide Rollers.</p> <p>2. Technical Specifications</p> <p>2.1. POM Rollers compatible with Ender 3</p> <p>2.2. POM Wheel: 5mm(0.2 inch) inner diameter x 10mm(0.4 inch) height</p> <p>2.3. Eccentric Spacer and Round Column: 5mm(0.2 inch) inner diameter x 6mm(0.2 inch) height</p> <p>2.4. Color: Silver</p> <p>2.5. Material: Plastic + Metal</p> <p>2.6. Package Contents</p> <p>2.6.1. 16 Pcs Pulley Wheels</p> <p>2.6.2. 16 Pcs Eccentric Spacers</p> <p>2.6.3. 16 Pcs Round Columns</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p>	2	pack	1512.50	3,025.00

	<p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
37	<p>Filament Storage Kit</p> <p>1. Objective</p> <p>1.1. Item is an expendable supply for a 3D printer.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Filament Storage.</p> <p>2. Technical Specifications</p> <p>2.1. Hand Pump</p> <p>2.1.1. Material: ABS + Silicone</p> <p>2.1.2. Item Size: 16.5 * 3.5 * 3.5cm</p> <p>2.1.3. Item Weight: 50g</p> <p>2.1.4. Suction Power: 8L/minute</p> <p>2.2. Vacuum Bags</p> <p>2.2.1. Material: PA+PE, BPA Free & FDA Approved</p> <p>2.2.2. Size: About 33 x 40cm</p> <p>2.2.3. Thickness: 0.085mm</p> <p>2.2.4. Use Times: ≤ 50 Times</p> <p>2.2.5. Storage Temperature: -20 to 85°C</p> <p>2.3. Package Size: 34.7 x 13.7 x 5.5cm / 13.7 x 5.4 x 2.2in</p> <p>2.4. Package Weight: 496g / 17.5oz</p> <p>2.5. Kit contents</p> <p>2.5.1. 1 x Hand Pump</p> <p>2.5.2. 10 x Vacuum Bags</p> <p>2.5.3. 2 x Sealing Clips</p> <p>2.5.4. 15 x Humidity Indicator Cards</p> <p>2.5.5. 1 x User Manual</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	1	box	1581.25	1,581.25
38	<p>Filament Moisture Absorber</p> <p>1. Objective</p> <p>1.1. Item is an expendable supply for a 3D printer.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Filament Moisture Absorber.</p> <p>2. Technical Specifications</p> <p>2.1. Material: Silica Gel</p> <p>2.2. Color: Blue (Dry) / Red (Wet)</p> <p>2.3. Weight: 1kg</p> <p>2.4. Reusable</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p>	1	pack	1320.00	1,320.00

	<p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
39	<p>DC-DC Buck Converter Module</p> <p>1. Objective</p> <p>1.1. Item is an expendable accessory to a 3D printer.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of DC-DC Buck Converter Module.</p> <p>2. Technical Specifications</p> <p>2.1. DC-DC step-down power module</p> <p>2.2. 24v/12V to 5V 5A</p> <p>2.3. LM2596S-based design</p> <p>2.4. Synchronous rectification scheme, wide voltage, large current, high efficiency</p> <p>2.5. With DC plug and terminal</p> <p>2.6. With USB port, with fast charging identification chip</p> <p>2.7. Working voltage: DC 9V - 36V</p> <p>2.8. Output: 5.2V/5A/25W</p> <p>2.9. Output capability</p> <p>2.9.1. 9~24V input: output 5.2V/6A/30W</p> <p>2.9.2. 24~32V input: output 5.2V/5A/25W</p> <p>2.9.3. 32~36V input: output 5.2V/3.5A/18W</p> <p>2.10. Size: 63x27x10mm (length x width x height)</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	2	pc	280.50	561.00
40	<p>High Current Relay Module - 2 Channel</p> <p>1. Objective</p> <p>1.1. Item is an expendable accessory to a 3D printer.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of 2-Channel Relay Module.</p> <p>2. Technical Specifications</p> <p>2.1. 2 Channel SPDT Relay</p> <p>2.2. Current: 30A</p> <p>2.3. Voltage: 250VAC / 30VDC</p> <p>2.4. Trigger: 5V</p> <p>2.5. Normally Open and Normally Closed Terminals</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	2	pc	495.00	990.00
41	<p>Solid State Relay - 25A</p> <p>1. Objective</p>	1	pc	1402.50	1,402.50

	<p>1.1. Item is an expendable accessory to a 3D printer.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of 25A Solid State Relay.</p> <p>2. Technical Specifications</p> <p>2.1. Control mode: DC Control DC (DC-DC)</p> <p>2.2. Output current: 25A</p> <p>2.3. Input Voltage: 3-32VDC</p> <p>2.4. Output Load voltage: 5-60VDC</p> <p>2.5. On-state voltage: <=1.5V</p> <p>2.6. One-off Time: <=10ms</p> <p>2.7. Off leakage Current: <=2mA</p> <p>2.8. Work instructions: LED</p> <p>2.9. Fixing method: Bolted</p> <p>2.10. Item size: 62x45x23.5mm</p> <p>2.11. Genuine product</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
42	<p>Speakerphone</p> <p>1. Objective</p> <p>1.1. Item will be used for day-to-day office work.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Wireless Speakerphone.</p> <p>2. Technical Specifications</p> <p>2.1. Bluetooth Speakerphone</p> <p>2.2. At least 6 Microphones in 360° array pick up voices from all directions</p> <p>2.3. Enhanced voice pickup utilizing a custom DSP algorithm to optimize voice in real-time and reduce background noise</p> <p>2.4. Connectivity: Bluetooth 5 and USB type C</p> <p>2.5. At least 6,700mAh built-in battery for 24 hours of call time</p> <p>2.6. Compatible with leading online conferencing services such as Zoom, MS Teams, Google Meet, etc.</p> <p>2.7. Genuine product</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	1	unit	8580.00	8,580.00
43	<p>Power Strip</p> <p>1. Objective</p> <p>1.1. Item will be used for day-to-day office work.</p> <p>1.2. The specifications written here are of minimum</p>	5	pc	1842.50	9,212.50

	<p>requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of 6-Gang Power Strip.</p> <p>2. Technical Specifications</p> <p>2.1. Power Strip - 6 Gang (International Outlet)</p> <p>2.2. Length: 5 Meters</p> <p>2.3. Individual Switch and LED On Indicator</p> <p>2.4. Internal Surge Protection Device</p> <p>2.5. Built-in Fuse Protection (Per Socket)</p> <p>2.6. Insulated Copper Wire Connection</p> <p>2.7. Fire Retardant Plastic</p> <p>2.8. Adaptable to standard plugs of all countries</p> <p>2.9. Insulation Resistance: 500MΩ</p> <p>2.10. Rated Voltage: 250VAC</p> <p>2.11. Rated Current: 10A</p> <p>2.12. Power: 2500W Max</p> <p>2.13. Genuine product</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>				
44	<p>Spot Welder Pen - Terminal Connector</p> <p>1. Objective</p> <p>1.1. Item is an accessory to an existing tool.</p> <p>1.2. The specifications written here are of minimum requirements, unless otherwise stated.</p> <p>1.3. Scope of service: supply and delivery of Spot Welder Pen with Terminal Connector.</p> <p>2. Technical Specifications</p> <p>2.1. Double terminal (Positive and Negative)</p> <p>2.2. Length of wire cable: 50cm</p> <p>2.3. Diameter: 25mm sq</p> <p>2.4. Terminal connector type</p> <p>2.5. Compatible with SUNKKO 787A+ Spot Welder</p> <p>3. Warranty</p> <p>3.1. Supplier warrants the item against defects in manufacturing and shipping and delivery issues.</p> <p>3.2. Defective and incorrect items shall be replaced.</p> <p>3.3. Warranty Period: at least one year.</p> <p>4. Payment and Delivery Terms</p> <p>4.1. Price is inclusive of government taxes, delivery, etc.</p> <p>4.2. Delivery: 60 days upon issuance of NTP.</p>	1	set	4000.00	4,000.00
TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):					Php 259,192.50

GUIDELINES

A. Content and Format of Quotations

1. The Quotation/s must include the RFQ Number or the PR Number indicated above
2. Bidders must specify the BRAND NAMES and MODEL NAMES/NUMBER for the following goods:
 - a. Computer and electronic equipment and its accessories or peripherals
 - b. Software applications, programs, and digital licenses
 - c. Commercial off-the-shelf electronic devices or components
3. The Quotation/s must indicate the registered business name of the company (or individual), business address and contact number. It must also include the full name and signature of the company's authorized representative.
4. BIR Certificate of Registration for new DOST-ASTI suppliers.

B. Eligibility Requirements

Pursuant to Annex "H" or Consolidated Guidelines for the Alternative Methods of Procurement of the 2016 Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184, the following documents shall be submitted except for Repeat Order, Shopping under Section 52.1(a), and Negotiated Procurement under Sections 53.1 (Two-Failed Biddings), and 53.5 (Agency-to-Agency):

For Procurement of Goods

1. Upon submission of quotation
 - a. Valid PhilGEPS Registration Number / Organization ID
 - b. Valid Mayor's/Business Permit
2. Upon issuance of Notice of Award (NOA)
 - a. Omnibus Sworn Statement (shall be required only for procurement projects with ABC above P50,000.00)
 - b. Income/Business Tax Return (For ABCs above P500,000.00)

For Procurement of Infrastructure

1. Upon submission of quotation
 - a. Valid PhilGEPS Registration Number / Organization ID
 - b. Valid Mayor's/Business Permit
 - c. Valid PCAB License
2. Upon issuance of NOA
 - a. Omnibus Sworn Statement (shall be required only for procurement projects with ABC above P50,000.00)
 - b. Income/Business Tax Return (For ABCs above P500,000.00)

*Requirements under Section 53.6 (Scientific, Scholarly or Artistic Work, Exclusive Technology and Media Services) of the revised IRR of RA No. 9184 will not apply to artists such as singer, performer, poet, writer, painter and sculptor who are engaged in business.

**Requirements under Section 53.10 (Lease of Real Property or Venue) of the revised IRR of RA No. 9184, specifically Mayor's/Business Permit, PhilGEPS Registration Number and Income/Business Tax Return will not apply to government agencies as lessors.

***For methods of procurement requiring Mayor's Permit and PhilGEPS Registration Number, valid Certificate of Platinum Membership may be submitted in lieu of the said documents.

C. Terms and Conditions

1. Additional requirements, if necessary, may be requested by the BAC depending on the item to be bid;
2. All transactions are subject to creditable withholding tax and final Value Added Tax or percentage tax per revenue regulation/s of the BIR;
3. Liquidated damages of at least equal to one-tenth of one percent (0.001) of the cost of the unperformed portion for every day of delay shall be imposed by the DOST-ASTI pursuant to Section 68 of the revised IRR of RA No. 9184; and
4. The DOST-ASTI reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.