



REPUBLIC OF THE PHILIPPINES
QUEZON CITY GOVERNMENT
BIDS AND AWARDS COMMITTEE –
GOODS AND SERVICES



PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

PROCUREMENT OF VARIOUS ELECTRONICS AND COMPUTER ENGINEERING LABORATORY EQUIPMENT

PROJECT NO. QCU-24-ELTE-0753B

Government of the Republic of the Philippines

**Sixth Edition
July 2020**

Preface

These Philippine Bidding Documents (PBDs) for the procurement of Goods through Competitive Bidding have been prepared by the Government of the Philippines for use by any branch, constitutional commission or office, agency, department, bureau, office, or instrumentality of the Government of the Philippines, National Government Agencies, including Government-Owned and/or Controlled Corporations, Government Financing Institutions, State Universities and Colleges, and Local Government Unit. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract or Framework Agreement, as the case may be; (ii) the eligibility requirements of Bidders; (iii) the expected contract or Framework Agreement duration, the estimated quantity in the case of procurement of goods, delivery schedule and/or time frame; and (iv) the obligations, duties, and/or functions of the winning bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Goods to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

- a. All the documents listed in the Table of Contents are normally required for the procurement of Goods. However, they should be adapted as necessary to the circumstances of the particular Procurement Project.
- b. Specific details, such as the “*name of the Procuring Entity*” and “*address for bid submission*,” should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.
- c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, Bid Data Sheet, General Conditions of Contract, Special Conditions of Contract, Schedule of Requirements, and Specifications are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.
- d. The cover should be modified as required to identify the Bidding Documents as to the Procurement Project, Project Identification Number, and Procuring Entity, in addition to the date of issue.

- e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.
- f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

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Glossary of Acronyms, Terms, and Abbreviations

ABC – Approved Budget for the Contract.

BAC – Bids and Awards Committee.

Bid – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

Bidder – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

Bidding Documents – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

CDA - Cooperative Development Authority.

Contract – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

CIF – Cost Insurance and Freight.

CIP – Carriage and Insurance Paid.

CPI – Consumer Price Index.

DDP – Refers to the quoted price of the Goods, which means “delivered duty paid.”

DTI – Department of Trade and Industry.

EXW – Ex works.

FCA – “Free Carrier” shipping point.

FOB – “Free on Board” shipping point.

Foreign-funded Procurement or Foreign-Assisted Project– Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

Framework Agreement – Refers to a written agreement between a procuring entity and a supplier or service provider that identifies the terms and conditions, under which specific purchases, otherwise known as “Call-Offs,” are made for the duration of the agreement. It is in the nature of an option contract between the procuring entity and the bidder(s) granting the procuring entity the option to either place an order for any of the goods or services identified in the Framework Agreement List or not buy at all, within a minimum period of one (1) year to a maximum period of three (3) years. (GPPB Resolution No. 27-2019)

GFI – Government Financial Institution.

GOCC – Government-owned and/or –controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term “related” or “analogous services” shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

GPPB – Government Procurement Policy Board.

INCOTERMS – International Commercial Terms.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PhilGEPS - Philippine Government Electronic Procurement System.

Procurement Project – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency

which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

Supplier – refers to a citizen, or any corporate body or commercial company duly organized and registered under the laws where it is established, habitually established in business and engaged in the manufacture or sale of the merchandise or performance of the general services covered by his bid. (Item 3.8 of GPPB Resolution No. 13-2019, dated 23 May 2019). Supplier as used in these Bidding Documents may likewise refer to a distributor, manufacturer, contractor, or consultant.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

The Invitation to Bid (IB) provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The IB shall be posted in accordance with Section 21.2 of the 2016 revised IRR of RA No. 9184.

Apart from the essential items listed in the Bidding Documents, the IB should also indicate the following:

- a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;
- b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;
- c. The deadline for the submission and receipt of bids; and
- d. Any important bid evaluation criteria (*e.g.*, the application of a margin of preference in bid evaluation).

The IB should be incorporated in the Bidding Documents. The information contained in the IB must conform to the Bidding Documents and in particular to the relevant information in the Bid Data Sheet.



QUEZON CITY GOVERNMENT
BAC – GOODS AND SERVICES



INVITATION TO BID

May 27, 2024

NO.	PROJECT NO.	OFFICE	PROJECT NAME	AMOUNT	SOURCE OF FUND	DELIVERY PERIOD
1.	CCRD-24-SERVICES-0982	CITY CIVIL REGISTRY DEPARTMENT	OPERATION, MANAGEMENT AND MAINTENANCE OF THE BAESA PUBLIC CREMATORIUM QUEZON CITY	P 12,435,543.12	GENERAL FUND	6 MONTHS
2.	CGSD-24-VRM-0360B	CITY GENERAL SERVICES DEPARTMENT	CORRECTIVE REPAIR AND MAINTENANCE SERVICE OF CITY-OWNED MOTOR VEHICLE (PARTS AND LABOR)	P 6,879,960.83	GENERAL FUND	5 MONTHS
3.	CGSD-24-GRMS-0821	CITY GENERAL SERVICES DEPARTMENT	REPAIR OF WATER PUMPS AT VARIOUS QUEZON CITY GOVERNMENT FACILITIES	P 1,000,000.00	GENERAL FUND	60 CD
4.	CGSD-24-OSD-0880	CITY GENERAL SERVICES DEPARTMENT	VARIOUS OFFICE SUPPLIES AND OTHERS	P 6,720,113.42	GENERAL FUND	30 CD
5.	CONSO-24-BMOP-1006	SCHOOLS DIVISION OFFICE	LINE 1: SUPPLY AND DELIVERY OF ENGLISH READING RESOURCES FOR PUBLIC ELEMENTARY AND SECONDARY SCHOOLS IN QUEZON CITY	P 11,700,000.00	SPECIAL EDUCATION FUND	60 CD
			LINE 2: SUPPLY AND DELIVERY OF FILIPINO READING RESOURCES FOR PUBLIC ELEMENTARY SCHOOLS IN QUEZON CITY	P 2,804,010.00	SPECIAL EDUCATION FUND	30 CD
6.	CONSO-24-GI2-1007	SOCIAL SERVICES DEVELOPMENT DEPARTMENT	LINE 1: FOOD PACKS FOR INDIGENT SENIOR CITIZENS	P 46,240,000.00	GENERAL FUND	5 MONTHS
			LINE 2: FOOD PACKS FOR INDIGENTS	P 9,999,928.55	GENERAL FUND	30 CD
7.	ENGINEERING-24-IT-0936	DEPARTMENT OF ENGINEERING	COMPUTER SOFTWARES	P 6,048,000.00	GENERAL FUND	30 CD
8.	HEALTH-24-CCP-0942	QUEZON CITY HEALTH DEPARTMENT	CHEMICALS AND FILTERING SUPPLIES	P 2,410,000.00	GENERAL FUND	30 CD
9.	HEALTH-24-DM-1012	QUEZON CITY HEALTH DEPARTMENT	VARIOUS DRUGS AND MEDICINES FOR SENIOR CITIZENS OF QUEZON CITY	P 129,151,333.75	GENERAL FUND	5 MONTHS
10.	HEALTH-24-HME-0713B	QUEZON CITY HEALTH DEPARTMENT	ELECTRONIC FLAT SCALE AND OTHERS	P 4,212,000.00	GENERAL FUND	30 CD
11.	HEALTH-24-MSLI-0657	QUEZON CITY HEALTH DEPARTMENT	SARS-CoV-2 SAMPLE COLLECTION AND NUCLEIC ACID DIAGNOSTIC KIT	P 15,000,000.00	GENERAL FUND	30 CD
12.	HEALTH-24-VEHICLES-0815	QUEZON CITY HEALTH DEPARTMENT	EMERGENCY RESCUE VEHICLE	P 4,500,000.00	GENERAL FUND	60 CD
13.	ITDD-24-SERVICES-0693	INFORMATION TECHNOLOGY DEVELOPMENT DEPARTMENT	SUPPLY, DELIVERY, INSTALLATION, CONFIGURATION, TESTING AND COMMISSIONING OF THE QUEZON CITY HALL STRUCTURED CABLING FOR PUBLIC WORKS BUILDING, BUILDING REGULATORY OFFICE, AND MAIN HIGH-RISE BUILDING	P 81,999,949.33	GENERAL FUND	180 CD
14.	NDH-24-HME-0916	NOVALICHES DISTRICT HOSPITAL	MECHANICAL VENTILATOR (3 IN 1)	P 5,000,000.00	GENERAL FUND	90 CD
15.	OCM(POPS)-24-FOODSTUFF-0962	OFFICE OF THE CITY MAYOR - POPS PLAN	FOOD SUPPLIES AND OTHERS	P 3,000,000.00	GENERAL FUND	5 MONTHS
16.	OCM-24-GI2-0926	OFFICE OF THE CITY MAYOR	VARIOUS GROCERY ITEMS AND OTHERS	P 9,885,669.89	GENERAL FUND	20 CD
17.	OSR(LIGA)-24-HLMF-0943	OFFICE OF THE SECTORAL REPRESENTATIVE (LIGA NG MGA BARANGAY)	HOTEL ACCOMMODATION, FOOD AND OTHERS	P 2,310,000.00	GENERAL FUND	30 CD

NO.	PROJECT NO.	OFFICE	PROJECT NAME	AMOUNT	SOURCE OF FUND	DELIVERY PERIOD
18.	OVM-24-GI2-0209	OFFICE OF THE VICE MAYOR	GROCERY PACKS	P 44,494,236.00	GENERAL FUND	5 MONTHS
19.	PDAD-24-CSI-0342	PARKS DEVELOPMENT AND ADMINISTRATION DEPARTMENT	PROCUREMENT OF FOOD & DRINKS AND OTHERS	P 1,178,800.00	GENERAL FUND	6 MONTHS
20.	QCDRRMO-24-CSI-0746B	QUEZON CITY DISASTER RISK REDUCTION AND MANAGEMENT OFFICE (SDO)	FOOD AND DRINKS AND OTHERS	P 6,210,400.00	GENERAL FUND	5 MONTHS
21.	QCDRRMO-24-ELTE-0750	QUEZON CITY DISASTER RISK REDUCTION AND MANAGEMENT OFFICE (ENGINEERING DEPARTMENT)	STRUCTURAL ANALYSIS EQUIPMENT	P 12,060,000.00	GENERAL FUND	60 CD
22.	QCDRRMO-24-HLMF-0980	QUEZON CITY DISASTER RISK REDUCTION AND MANAGEMENT OFFICE (PDAO)	HOTEL ACCOMMODATION AND OTHERS	P 9,501,742.50	GENERAL FUND	5 MONTHS
23.	QCDRRMO-24-VEHICLES-0910	QUEZON CITY DISASTER RISK REDUCTION AND MANAGEMENT OFFICE (PDAD)	6 WHEELER WITH MANLIFTER	P 6,156,000.00	GENERAL FUND	60 CD
24.	QCDTRC(TAHANAN)-24-GM-0834	QUEZON CITY DRUG TREATMENT AND REHABILITATION CENTER (TAHANAN)	VARIOUS SUPPLIES AND MATERIALS	P 3,305,062.84	GENERAL FUND	30 CD
25.	QCGH-24-HME-0945	QUEZON CITY GENERAL HOSPITAL	LABORATORY GLASSWARE WASHER AND MILK LABELLING SYSTEM	P 1,200,000.00	GENERAL FUND	30 CD
26.	QCGH-24-MSLI-0627B	QUEZON CITY GENERAL HOSPITAL	REAGENTS AND CONSUMABLES FOR VARIOUS MEDICAL EQUIPMENT	P 32,704,991.20	GENERAL FUND	90 CD
27.	QCGH-24-MSLI-0857B	QUEZON CITY GENERAL HOSPITAL	MEDICAL OXYGEN REFILL AND OTHERS	P 14,202,857.60	GENERAL FUND	6 MONTHS
28.	QCU-24-ELTE-0753B	QUEZON CITY UNIVERSITY	VARIOUS ELECTRONICS AND COMPUTER ENGINEERING LABORATORY EQUIPMENT	P 12,668,900.00	GENERAL FUND	120 CD
29.	QCU-24-ELTE-0938	QUEZON CITY UNIVERSITY	VARIOUS EQUIPMENT FOR THE ENGINEERING ERGONOMICS LABORATORY OF THE QUEZON CITY UNIVERSITY	P 1,207,400.00	GENERAL FUND	90 CD
30.	SDO-24-MSLI-0996	SCHOOLS DIVISION OFFICE	FLUORIDE VARNISH	P 3,000,000.00	SPECIAL EDUCATION FUND	30 CD

- The **QUEZON CITY LOCAL GOVERNMENT**, through the *General Fund and Special Education Fund of various years* intends to apply the sums stated above being the ABC to payments under the contract for *the above stated projects of contract for each lot/item*. Bids received in excess of the ABC shall be automatically rejected at bid opening.
- The **QUEZON CITY LOCAL GOVERNMENT** now invites bids for various *Projects*. Delivery of the Goods is required *as stated above*. Bidders should have completed, within *the last three (3) years* from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.
- Bidding will be conducted through open competitive bidding procedures using a non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (R.A.) No. 9184.
 - Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA No. 5183.
- Prospective Bidders may obtain further information from **QUEZON CITY GOVERNMENT Bids and Awards Committee (BAC) Secretariat** and inspect the Bidding Documents at the address given below during *weekdays from 7:00 a.m. – 5:00 p.m.*
- A complete set of Bidding Documents may be acquired by interested Bidders on **Tuesday, May 28, 2024** from the given address and website(s) below *and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB*. The Procuring Entity shall allow the bidder to present its proof of payment for the fees *in person*.

STANDARD RATES:

Approved Budget for the Contract	Maximum Cost of Bidding Documents (in Philippine Peso)
500,000 and below	500.00
More than 500,000 up to 1 Million	1,000.00
More than 1 Million up to 5 Million	5,000.00
More than 5 Million up to 10 Million	10,000.00
More than 10 Million up to 50 Million	25,000.00
More than 50 Million up to 500 Million	50,000.00
More than 500 Million	75,000.00

The following are the requirements for purchase of Bidding Documents:

1. PhilGEPS Registration Certificate (Platinum – 3 pages)
 2. Document Request List (DRL)
 3. Authorization to Purchase Bidding Documents
 - 3.1 Corporate Secretary Certificate for corporation (specific for the project)
 - 3.2 Special Power of Attorney for single proprietorship (specific for the project)
 4. Notarized Joint Venture Agreement (as applicable)
6. The *Quezon City Local Government* will hold a Pre-Bid Conference on 9:00 A.M. of **Tuesday, June 04, 2024** at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound, and/or through video conferencing *via Zoom* which shall be open to prospective bidders.
- Topic: BAC-GOODS Pre-Bid Conference Meeting
Join Zoom Meeting
<https://us02web.zoom.us/j/84835002246?pwd=QVRnVE0weXZMNXYwZG5LaWdlidXk1OT09>
Meeting ID: 848 3500 2246
Passcode: 154733
7. Bids must be duly received by the BAC Secretariat through manual submission at the 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound on or before **10:00 A.M. of Tuesday, June 18, 2024**. Late bids shall not be accepted.
8. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 14.
9. Bid opening shall be on **11:00 A.M. of Tuesday, June 18, 2024** at the given address below and/or via Zoom. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
- Topic: BAC-GOODS & SERVICES BIDDING
Join Zoom Meeting
<https://us02web.zoom.us/j/85850855933?pwd=R2dZUUp4Z3lvU29iZGVlWmdKRjZCdz09>
Meeting ID: 858 5085 5933
Passcode: 118682
10. The *Quezon City Local Government* 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.
11. For further information, please refer to:

ATTY. DOMINIC B. GARCIA
OIC, Procurement Department
2nd Floor, Procurement Department,
Finance Building, Quezon City Hall Compound
Elliptical Road, Barangay Central Diliman, Quezon City.
Email Add: bacgoods.procurement@quezoncity.gov.ph
Tel. No. (02)8988-4242 loc. 8506/8710
Website: www.quezoncity.gov.ph

12. You may visit the following websites:
For downloading of Bidding Documents: www.quezoncity.gov.ph

By:


MS. MA. MARGARITA S. MEJIA, DPA
Chairperson, QC-BAC-Goods and Services

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

This Section on the Instruction to Bidders (ITB) provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and on the award of contract.

1. Scope of Bid

The Procuring Entity, **Quezon City Local Government** *wishes* to receive Bids for the **PROCUREMENT OF VARIOUS ELECTRONICS AND COMPUTER ENGINEERING LABORATORY EQUIPMENT** with identification number: **QCU-24-ELTE-0753B**.

[Note: The Project Identification Number is assigned by the Procuring Entity based on its own coding scheme and is not the same as the PhilGEPS reference number, which is generated after the posting of the bid opportunity on the PhilGEPS website.]

The Procurement Project (referred to herein as “Project”) is composed of **FOUR (4) ITEMS**, the details of which are described in Section VII (Technical Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for **2024** in the amount of **TWELVE MILLION SIX HUNDRED SIXTY EIGHT THOUSAND NINE HUNDRED PESOS AND 00/100 ONLY (Php12,668,900.00)**.

2.2. The source of funding is:

a. LGUs, the Annual or Supplemental Budget, as approved by the Sanggunian.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manuals and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or **IB** by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have verified and accepted the general requirements of this Project, including other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, and Coercive Practices

The Procuring Entity, as well as the Bidders and Suppliers, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex “I” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. Foreign ownership exceeding those allowed under the rules may participate pursuant to:
 - i. When a Treaty or International or Executive Agreement as provided in Section 4 of the RA No. 9184 and its 2016 revised IRR allow foreign bidders to participate;
 - ii. Citizens, corporations, or associations of a country, included in the list issued by the GPPB, the laws or regulations of which grant reciprocal rights or privileges to citizens, corporations, or associations of the Philippines;
 - iii. When the Goods sought to be procured are not available from local suppliers; or
 - iv. When there is a need to prevent situations that defeat competition or restrain trade.
- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to:
 - a. For the procurement of **Non Expendable Supplies and Services**: The Bidder must have completed a single contract that is similar to this Project, equivalent to at least **fifty percent (50%)** of the ABC.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

6. Origin of Goods

There is no restriction on the origin of goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN, subject to Domestic Preference requirements under **ITB** Clause 18.

7. Subcontracts

- 7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than twenty percent (20%) of the Project.

The Procuring Entity has prescribed that: Subcontracting is not allowed.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address and/or through videoconferencing as indicated in paragraph 6 of the **IB**.

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)**.
- 10.2. The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within *the last three (3) years* prior to the deadline for the submission and receipt of bids.
- 10.3. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. Similar to the required authentication above, for Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an Apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

11. Documents comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)**.
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.4. For Foreign-funded Procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Bid Prices

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:

- a. For Goods offered from within the Procuring Entity's country:
 - i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);
 - ii. The cost of all customs duties and sales and other taxes already paid or payable;
 - iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
 - iv. The price of other (incidental) services, if any, listed in e.
- b. For Goods offered from abroad:
 - i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
 - ii. The price of other (incidental) services, if any, as listed in **Section VII (Technical Specifications)**.

13. Bid and Payment Currencies

- 13.1. For Goods that the Bidder will supply from outside the Philippines, the bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies, shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
- 13.2. Payment of the contract price shall be made in:
 - a. Philippine Pesos.

14. Bid Security

- 14.1. The Bidder shall submit a Bid Securing Declaration¹ or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 14.2. The Bid and bid security *in no case shall exceed One Hundred Twenty (120) calendar days from the date of opening of bids, unless duly extended by the bidder upon the request of the Head of the Procuring Entity (HoPE) of the Quezon City Local Government*. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

¹ In the case of Framework Agreement, the undertaking shall refer to entering into contract with the Procuring Entity and furnishing of the performance security or the performance securing declaration within ten (10) calendar days from receipt of Notice to Execute Framework Agreement.

15. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

16. Deadline for Submission of Bids

16.1. The Bidders shall submit on the specified date and time through manual submission as indicated in paragraph 7 of the **IB**.

17. Opening and Preliminary Examination of Bids

17.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

17.2. The preliminary examination of bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

18. Domestic Preference

18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*," using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of the 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by **ITB** Clause 15 shall be submitted for each lot or item separately.

19.3. The descriptions of the lots or items shall be indicated in **Section VII (Technical Specifications)**, although the ABCs of these lots or items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.

19.4. The Project shall be awarded as follows:

One Project having several items that shall be awarded as one contract.

19.5. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

20. Post-Qualification

20.1. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

21.1. The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Section III. Bid Data Sheet

Notes on the Bid Data Sheet

The Bid Data Sheet (BDS) consists of provisions that supplement, amend, or specify in detail, information, or requirements included in the ITB found in Section II, which are specific to each procurement.

This Section is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, and the bid evaluation criteria that will apply to the Bids. In preparing the BDS, the following aspects should be checked:

- a. Information that specifies and complements provisions of the ITB must be incorporated.
- b. Amendments and/or supplements, if any, to provisions of the ITB as necessitated by the circumstances of the specific procurement, must also be incorporated.

Bid Data Sheet

ITB Clause	
5.3	<p>For this purpose, contracts similar to the Project shall be:</p> <ol style="list-style-type: none"> <i>A single contract similar to the item/s to be bid and must be at least fifty percent (50%) of the ABC.</i> Completed within the last three (3) years prior to the deadline for the submission and receipt of bids substantially in a FORM prescribed by the QC-BAC-GOODS AND SERVICES, must be accompanied by a copy of Certificate of Acceptance by the end-user or Official Receipt (O.R) or Sales Invoice (S.I.) issued for the Contract.
7.1	Subcontracting is not allowed.
12	The price of the Goods shall be quoted DDP <i>within Quezon City</i> or the applicable International Commercial Terms (INCOTERMS) for this Project.
14.1	<p>The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:</p> <ol style="list-style-type: none"> The amount of not less than Php253,378.00 or equivalent to two percent (2%) of ABC if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or The amount of not less than Php633,445.00 or equivalent to five percent (5%) of ABC if bid security is in Surety Bond.
19.3	<p><i>[In case the Project will be awarded by lot, list the grouping of lots by specifying the group title, items, and the quantity for every identified lot, and the corresponding ABC for each lot.]</i></p> <p><i>[In case the project will be awarded by item, list each item indicating its quantity and ABC.]</i></p>
20.2	<p>List of required licenses and permits relevant to the Project and the corresponding law requiring it.</p> <ul style="list-style-type: none"> No additional requirement
21.2	<p>Additional required documents relevant to the Project that are required by existing laws and/or the Procuring Entity.</p> <ul style="list-style-type: none"> Statement of Warranty: One (1) year on parts; Two (2) years on service, and continuous technical support. Proof of ISO or any relevant certification to ensure that the quality of products and services complies with industry and international standards. Brochure catalog indicating the brand name and model for all the items being procured. Notarized Affidavit of Undertaking stating compliance to the following: <ol style="list-style-type: none"> That the Bidder must conduct after sales training for the end-user after the completion of delivery for 18 Engineering faculty members and Laboratory personnel for 5 days.

	<ul style="list-style-type: none"><ul style="list-style-type: none">b. That the Bidder must provide the following After Sales Service:<ul style="list-style-type: none">➤ Free trainer’s training➤ Free Semi-Annual Re-training with certificate, on request➤ Free Consultation/Seminar, on request➤ Free Annual product inspection, on request➤ Free Product demonstration, on Requestc. That the Bidder must provide continuous technical support to equipment parts including services and repair as long as the equipment is functional.d. That the equipment must be supplied with training manuals in English.• Trainor's certification from the manufacturer to assure the quality of training that will be provided.• Authorization to bid from the manufacturer to ensure brand new equipment parts , training, end-user protection/ warranty and after sales services.
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Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

The General Conditions of Contract (GCC) in this Section, read in conjunction with the Special Conditions of Contract in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

Matters governing performance of the Supplier, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are included in the GCC and Special Conditions of Contract.

Any complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract.

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

Additional requirements for the completion of this Contract shall be provided in the **Special Conditions of Contract (SCC)**.

2. Advance Payment and Terms of Payment

2.1. Advance payment of the contract amount is provided under Annex “D” of the revised 2016 IRR of RA No. 9184.

2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the **SCC**.

3. Performance Security

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than prior to the signing of the Contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR of RA No. 9184.

4. Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the **SCC, Section IV (Technical Specifications)** shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

5. Warranty

6.1. In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.

- 6.2. The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

6. Liability of the Supplier

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Supplier is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity’s country, the sector, and the Goods purchased. In preparing this Section, the following aspects should be checked:

- a. Information that complements provisions of the GCC must be incorporated.
- b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

Special Conditions of Contract

GCC Clause	
<p>1</p>	<p><i>[List here any additional requirements for the completion of this Contract. The following requirements and the corresponding provisions may be deleted, amended, or retained depending on its applicability to this Contract:]</i></p> <p>Delivery and Documents –</p> <p>For purposes of the Contract, “EXW,” “FOB,” “FCA,” “CIF,” “CIP,” “DDP” and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:</p> <p><i>[For Goods supplied from abroad, state:]</i> “The delivery terms applicable to the Contract are DDP delivered <i>[indicate place of destination]</i>. In accordance with INCOTERMS.”</p> <p><i>[For Goods supplied from within the Philippines, state:]</i> “The delivery terms applicable to this Contract are delivered <i>[indicate place of destination]</i>. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination.”</p> <p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements).</p> <p>For purposes of this Clause the Procuring Entity’s Representative at the Project Site is <i>[indicate name(s)]</i>.</p> <p>Incidental Services –</p> <p>The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirements: <i>Select appropriate requirements and delete the rest.</i></p> <ul style="list-style-type: none"> a. performance or supervision of on-site assembly and/or start-up of the supplied Goods; b. furnishing of tools required for assembly and/or maintenance of the supplied Goods; c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
	<ul style="list-style-type: none"> e. training of the Procuring Entity’s personnel, at the Supplier’s plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods. f. <i>[Specify additional incidental service requirements, as needed.]</i> <p>The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.</p>

	<p>Spare Parts –</p> <p>The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p> <p><i>Select appropriate requirements and delete the rest.</i></p> <ul style="list-style-type: none">a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; andb. in the event of termination of production of the spare parts:<ul style="list-style-type: none">i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; andii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested. <p>The spare parts and other components required are listed in Section VI (Schedule of Requirements) and the cost thereof are included in the contract price.</p> <p>The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period of <i>[indicate here the time period specified. If not used indicate a time period of three times the warranty period]</i>.</p> <p>Spare parts or components shall be supplied as promptly as possible, but in any case, within <i>[insert appropriate time period]</i> months of placing the order.</p>
	<p>Packaging –</p> <p>The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods’ final destination and the absence of heavy handling facilities at all points in transit.</p> <p>The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.</p> <p>The outer packaging must be clearly marked on at least four (4) sides as follows:</p> <p>Name of the Procuring Entity Name of the Supplier</p>

	<p>Contract Description</p> <p>Final Destination</p> <p>Gross weight</p> <p>Any special lifting instructions</p> <p>Any special handling instructions</p> <p>Any relevant HAZCHEM classifications</p>
	<p>A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.</p> <p>Transportation –</p> <p>Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.</p> <p>Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.</p>
	<p>Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.</p> <p>The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.</p> <p>Intellectual Property Rights –</p> <p>The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.</p>
2.2	<p>The terms of payment shall be as follows:</p> <ul style="list-style-type: none"> • The City shall pay the supplier upon every complete delivery and acceptance of the goods delivered herein and upon presentation of the billing statement.
4	<p>The inspections and tests that will be conducted are: <i>Product Presentation/Demonstration/Site Inspection, if applicable.</i></p>

Section VI. Schedule of Requirements

PROJECT NAME: PROCUREMENT OF VARIOUS ELECTRONICS AND
COMPUTER ENGINEERING LABORATORY EQUIPMENT
PROJECT NO. QCU-24-ELTE-0753B

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item Number	Description	Unit of Issue	Quantity	Delivered, Weeks/Months
1	<p>IOT Teaching Platform-Intelligent Building System Integration and Internet of Things Technology Training Equipment (ARM Embedded Bus Network)</p> <p>Equipment Overview: *The equipment is composed of platform, power monitoring and alarm module, safety plug terminal module, system master control device, system load simulation components and related programming development software. The platform is equipped with aluminum frame, fireproof panel high-strength electrical box and etc.</p> <p>*Programming development software is equipped with I.O.T network technology related development software, source code and communication protocol is completely open.</p> <p>Technical Parameters: The equipment shall have the following features: (1) Power input: single phase and three wires/ AC220V/60Hz (2) Safety protection: Grounding/leakage (action current ≤30mA)/ overvoltage/ overload/ short circuit, scram protection (3) AC power output: two route isolation (4) DC power output: DC5V/2.5A, DC12V/2A, DC24V/1.5A; (5) Adjustable DC power output: DC0-30V/2A; (6) Dimension at least (length * width* height) 1580 mm × 720 mm × 1760 mm (Frame part) 2040 mm × 720 mm × 1760 mm (fixed with both sides Spherical camera and warning lights)</p> <p>Training contents: 1. System wiring plugging, programming, commissioning, operation, maintenance and repair; 2. High-definition coaxial video signal and hard disk recorder connection; 3. High-speed dome camera, infrared gun-type camera and monitor and hard disk; 4. Through hard disk recorder control high-speed dome camera PTZ movement and lens action; 5. Through hard disk recorder set and adjust the high-speed dome camera PTZ presetting and cruise; 6. Dynamic monitoring screen changes and automatic recording of peripheral alarm;</p>	set	1	<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>

	<p>7. Passive infrared intrusion detector, active infrared detectors, sound and light alarm and</p> <p>8. LAN monitoring of network video surveillance management software;</p> <p>9. Software installation and Plug-in registration;</p> <p>10. Connection of light illumination switch, halogen lamp and the DDC control module and</p> <p>11. Connection of light sensor, LED light and DDC control module and analog input and output programming of Universal_Input function module;</p> <p>12. Connection of passive infrared detectors, fluorescent lamp and DDC control module and delay programming of Universal_Input function module;</p> <p>13. Connection of triple scene button, fluorescent tube and DDC control module and digital logic programming of State_Machine function module;</p> <p>14. Connection of emergency switch and DDC control module and analog logic programming of Analog_Function function module;</p> <p>15. Light intensity sensor detection training based on CAN bus and GSM communication;</p> <p>16. Air quality sensor detection training based on CAN bus and GSM communication;</p> <p>17. Air temperature and humidity sensor testing and training based on CAN bus and GSM communication;</p> <p>18. Soil temperature and humidity sensor testing and training based on CAN bus and GSM communication;</p> <p>19. Carbon dioxide sensor testing and training based on CAN bus and GSM communication;</p> <p>20. PM2.5 detection training based on CAN bus and GSM communication;</p> <p>21. Weight sensor detection training based on CAN bus and GSM communication;</p> <p>22. Flame sensor detection training based on CAN bus and GSM communication;</p> <p>23. Human pyroelectric sensor detection training based on CAN bus and GSM communication;</p> <p>24. Security detection training based on CAN bus and GSM communication;</p> <p>25. Electric curtain control training based on CAN bus and GSM communication;</p> <p>26. Lighting control training based on CAN bus and GSM communication;</p> <p>27. Air valve control training based on CAN bus and GSM communication;</p> <p>28. Water valve control training based on CAN bus and GSM communication;</p> <p>29. Plant watering control training based on CAN bus and GSM communication;</p> <p>30. Fish feeding control training based on CAN bus and GSM communication;</p> <p>31. Air purifier control training based on CAN bus and GSM communication;</p> <p>32. Cold and warm fan control training based on CAN bus and GSM communication;</p> <p>33. LCD monitor control training based on CAN bus and GSM communication;</p> <p>34. Electric lock control training based on CAN bus and GSM communication;</p> <p>35. Infrared learning and control training based on WIFI communication;</p> <p>36. PC monitoring training based on CAN bus;</p>			<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>
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	<p>37. Android monitoring training based on GSM communication;</p> <p>38. Intelligent household monitoring training based on WiFi communication;</p> <p>39. Integrated monitoring software through the video interface server connect hard disk recorder and monitor screen in real-time;</p> <p>40. Integrated monitoring software through the Internet of Things interface server connect the CAN bus and monitor data in real-time;</p> <p>41. Comprehensive integrated monitoring and management training of SAS, BAS and IOT integrated system based on intelligent building integrated monitoring software.</p> <p>Configuration:</p> <p>1.) Aluminum Bracket - 1 set (with brake universal wheel, handle)</p> <p>2.) Fireproof Board - 1 set</p> <p>3.) Electrical Box - 1 pc</p> <p>4.) Protective Barrier - 1 pc</p> <p>5.) LCD - 1 pc</p> <p>6.) Detection Actuator - 1 pc (Function control circuit board, inductance coil, contactor and relay)</p> <p>7.) 2P Air Switch - 3 pcs</p> <p>8.) Leakage Protection Module - 2 pcs</p> <p>9.) Alarm Module - 1 pc</p> <p>10.) Self-reset Button - 1 pc</p> <p>11.) Emergency Switch - 1 pc</p> <p>12.) AC 220V Guide Rail Three-Plug Module - 1 pc</p> <p>13.) AC 220V Guide Rail Two-Plug Module - 1 pc</p> <p>14.) DC0-30V Adjustable Switch Power - 1 pc</p> <p>15.) Adjustable Potentiometer - 1 pc</p> <p>16.) DC Digital Voltage Ammeter - 1 pc</p> <p>17.) Four-layer Alarm Light - 1 pc</p> <p>18.) 10A Safety Plug Terminal - 1 pc</p> <p>19.) 5A Safety Plug Terminal - 1 pc</p> <p>20.) Hard Disk Recorder - 1 pc</p> <p>21.) SATA Hard Disk - 1 pc</p> <p>22.) LCD Monitor - 1 pc</p> <p>23.) High Speed Dome Camera - 1 pc</p> <p>24.) Infrared Camera - 1 pc</p> <p>25.) Self-lock Button with DC24V Green Indicator Light - 2 pcs simulate passive curtain detector and active detector</p> <p>26.) Relay Switching Circuit Board - 2 pcs</p> <p>27.) DC12V Buzzer - 1 pc</p> <p>28.) Video Monitoring Management Software - 1 pc</p> <p>29.) Video Monitoring Wireless Client Software - 1 pc</p> <p>30.) Host Monitor Module - 1 pc bus DDC</p> <p>31.) Network Adapter - 1 pc</p> <p>32.) Self-lock Button with DC24V Green Indicator Light - 3 pcs simulate illuminous switch, passive infrared probe and emergency switch</p> <p>33.) Self-reset Button with DC24V red - 3 pcs</p> <p>34.) DC24V Yellow Indicator Light - 4 pcs</p> <p>35.) Relay Switching Circuit Board - 10 pcs</p> <p>36.) Potentiometer - 1 pc simulate illuminous sensor</p> <p>37.) DC Voltage Adjustment Conversion Circuit Board - 1 pc</p> <p>38.) DC Voltage Input Transmission Digital Tube - 1 pc simulate LED light</p>			<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>
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	<p>39.) DDC Program Software Plug-in Program - 1 pc 40.) Embed Host Board - 8 pcs ARM 41.) AC Electric, Water Valve and Air Valve Module - 1 pc 42.) Illuminous Sensor and Electric Curtain Module - 1 pc 43.) PM2.5 Air Quality Sensor Module - 1 pc 44.) Air, Earth Temperature and Humidity Sensor and Plant Irrigation Module - 1 pc 45.) Pyroelectric Sensor Module - 1 pc 46.) Pet Feed and Weighing Module - 1 pc 47.) Fire and Carbon Dioxide Sensor Module - 1 pc 48.) Security and Access Control Module - 1 pc 49.) CAN Communication Adapter - 1 pc 50.) Wi-Fi Directional Infrared Controller - 1 pc 51.) Wireless Router - 1 pc 52.) USB Wireless Network Card - 1 pc 53.) GSM Module - 1 pc 54.) Wi-Fi Touch Screen Terminal - 1 pc Android system 55.) Self-lock Button with DC6.3V Green Indicator Light - 1 pc simulate passive curtain probe 56.) Self-reset Button with DC6.3V Red Indicator Light - 2 pcs 57.) DC6.3V Yellow Indicator Light - 7 pcs 58.) DC6.3V Green Indicator Light - 1 pc 59.) DC6.3V Red Indicator Light - 1 pc 60.) PM2.5 Detector Simulator - 1 pc Potentiometer A/Dtransmit, RS232 communication protocol output 61.) Carbon Dioxide Sensor Simulator - 1 pc 62.) Pressure Transmit Simulator - 1 pc 63.) Air Conditioner, Air Purifier and TV Simulator - 1 pc infrared remote receive 64.) Infrared Remoter - 1 pc 65.) ARM Emulator - 1 pc</p>			<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>
2	<p>ADVANCED FPGA DEVELOPMENT SYSTEM</p> <p>Description:</p> <ul style="list-style-type: none"> • The trainer shall be a stand-alone system which contains stabilized DC power supplies, development board, and experiment board that enables students to learn digital system design proficiently. • The users must be able to design combinational and sequential circuits, multiplexer and demultiplexer, encoder and decoder, logic unit, ALU, counter, shift register and more. • The Training system shall be based on the latest digital technology in conjunction with EDA experimental teaching material. • The Trainer shall have FPGA chip with higher logic elements and large number of pins. • Provides AD/DA converter, keypad, LCD display, PS/2, VGA, UART, SCI interface, LEDS, 8-digit 7-segment LED display, step motor and DC motor driver circuits. <p>The FPGA Training Equipment shall have the following Technical Details:</p> <p>1. Download Board (1) Chip Model: Altera cyclone EP1C12Q240C8 (2) Clock: 40MHz</p>	set	1	

	<p>(3) Configuration Interface: USB Blaster (4) Configuration Memory: 2MB flash SEEPROM</p> <p>2. Peripheral I/Os (1) Power Unit: a. 3.3V/3A b. 5V/3A (2) Input and Clocking Unit: a. 4 sets of 8-bit DIP Switch b. 4x4 matrix Keypad c. Rotary Encoder Switch (A/B phase) d. Infrared Coupled Receiver e. 10 sets of fixed selectable clock: 0.1Hz, 1Hz, 10Hz, 100Hz, 1KHz, 10KHz, 100KHz, 1MHz, 10MHz, 40MHz f. 1 Toggle Switch g. 4 Configurable Push-button: Positive/negative pulse output and debounced / non-debounced pulse output. (3) Output Unit a. 8 sets of 8-bit Buffered LED (red/orange/yellow/green) b. 4 Independent LED (red) c. 2 groups of 4-digit 7-segment Scanning Display d. 128x64 Graphic / Character LCD Display e. 8x8 Dot Matrix LED Display (dual color) f. 16-segment Display g. Speaker (8Ω/0.5W) h. Infrared Coupled Transmitter (4) Interface Unit: a. PS/2 Interface b. VGA Interface (8 x 8 x 8 bit color) c. RS-232 Interface (5) Motor Unit: a. Step Motor: 12V/250mA, 7.5 degree / step b. 4 Poles Step Motor Driving Circuit: Each pole drives 60V/500mA c. 4 Stage PWM-Bridged Control Circuit: Each stage drives 50V/3A with forward / reverse and (6) Chip Communication and Expansion Unit: a. 8-bit D/A Converter (memory mapping interface) b. 8-bit A/D Converter (memory mapping interface) c. 256K bits SEEPROM (IIC interface) d. 12-bit Dual Channel Serial D/A converter (SPI Interface) e. Micro-controller 89C51 (memory mapping interface) f. 40-pin External Connector x 1 g. 20-pin external connector x 2</p> <p>The equipment shall be able to perform the following experiments:</p> <p>Basic logic circuit design and application 1 Software installation and operation 2 Basic combinational logic circuit 3 Basic sequential logic circuit 4 Basic arithmetic logic circuit 5 Using mega function 6 Numerical code conversion circuit</p> <p>Advanced logic circuit design and application 1 48-bit up/down counter with load, clear and enable 2 Infrared coupled transceiver controls 8-digit decimal scanning counter</p>			<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>
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	<p>3 Rotary encoder switch detector 4 16-segment LEDs digital display decoder 5 8 x 8 x 2 color dots matrix graphic display control 6 4 x 4 scanning matrix keypad control 7 128 x 64 LCD module display control 8 ADC conversion with hexadecimal and decimal display 9 DAC conversion for precise frequency generator 10 Precise function generator controlled by keypad 11 8 x 8 x 8 color pixels of VGA display control 12 Interfacing with synchronous serial PS/2 keyboard 13 Step motor position controlled by keypad 14 Step motor speed controlled by keypad 15 Using built in real time logic analyzer 16 High speed frequency and period counter 17 Digital clock 18 Music box 19 Electronic piano 20 Digital cipher locker 21 Digital cipher locker with hopping code 22 Bingo machine 23 Electronic dices 24 Traffic light control 25 Serial DAC transmission 26 IIC transmission 27 UART transmission 28 Interfacing with MCU 29 Building NIOS CPU from SOPC developmental system</p> <p>The set shall have the following Accessories: 1 Experiment manual x 1 2 Software / source code / documents CD or flash drive x 1 3 USB-Blaster x 1 4 RS-232 to USB adapter x 1 5 Lead wires x 1 (set) 6 Extra jumpers x 1 (set)</p>			<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>
3	<p>MICROCOMPUTER CONTROL EQUIPMENT</p> <p>FEATURES 1. The trainer includes various I/O peripherals suitable for learning Microcomputer Control Equipment 2. There are step-by-step procedures in the experiment manual for the Python programming language. 3. An independent power supply is provided to maximize the number of peripheral modules. 4. Three sets of I/O ports are extended around the working area for easy signal connection. 5. Two sets of independent DAC/ADC are built in to expand more experimental circuits. 6. A touch screen is built in for direct use and control.</p> <p>TECHNICAL SPECIFICATION: 1.Power (1) Input: 110V/220V AC, 50Hz/60Hz (2) Output: +5V/3A, +3.3V/1A 2. Control Board (1) Microcomputer Control Equipment 3 B+ (2) Power: built-in USB power</p>	set	1	

	<p>3. Display</p> <p>(1) Size: 7-inch, touch screen</p> <p>(2) Resolution: 800 x 480 at 60fps, 24-bit color</p> <p>(3) Protection: metal frame with protective sticker</p> <p>4. Prototyping Area</p> <p>(1) Device: RGB LED, button, buzzer</p> <p>(2) ADC/DAC: 2 sets, address 0x48 and 0x49, NXP PCF8591, 8-bit resolution, analog input x 4, analog output</p> <p>(3) Power jack: +5V/GND jump wire socket x4</p> <p>+5V/GND wafer socket x4</p> <p>(4) I/O socket: 40-pin female connector x 3</p> <p>(5) Brick plate: 32x16 brick unit</p> <p>5. Faya-nugget Electronic Blocks All blocks contain two wafer sockets for power connection, a DuPont pin-holder for signal connection, and four corner holes for perfect fixing on the brick plate.</p> <p>(1) Digital input</p> <p>a. BCD switch</p> <p>b. 8-bit DIP switch</p> <p>c. Self-Lock switch</p> <p>d. 5-bit TACT switch</p> <p>e. Toggle switch</p> <p>(2) Analog input</p> <p>a. Joystick switch</p> <p>b. Slide potentiometer</p> <p>(3) Environment detection</p> <p>a. AD-590 temperature sensor</p> <p>b. Hall sensor</p> <p>c. Photo interrupter</p> <p>d. Proximity sensor</p> <p>e. Reed switch</p> <p>(4) Output module</p> <p>a. Piezoelectric buzzer</p> <p>b. Step motor</p> <p>c. DC motor</p> <p>d. 2-axis servo</p> <p>(5) Accessories</p> <p>a. Experiment manual</p> <p>b. Wire pack</p> <p>c. Brick pack</p> <p>d. 16 x 32 brick plate x 2</p> <p>e. Brick post x 75</p> <p>f. Brick cap x 75</p> <p>g. Power wire x 20</p> <p>Accessories</p> <p>1.Operational Manual</p> <p>2.Power Cord</p> <p>3.Experiment CD or flash drive</p>			<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>
4	<p>ROBOTICS ADVANCED LEARNING KIT BUNDLE</p> <ul style="list-style-type: none">•Contains Robotics Advanced Learning Kit•Contains over thousands of pieces per Kit, a wide variety of aluminum structure, a Robot Control System, Vision Sensor, tools, and accessories. <p>Programming Software</p> <ul style="list-style-type: none">•With Programming Software and Curriculum - Accessible in Chromebook, Windows, Mac, iPad OS and Android•Programming Languages Scratch 3.0, C++, Python	set	5	

<p>eLearning - Curriculum and Certification</p> <ul style="list-style-type: none">•With Teacher and Student Portal Accessible through Web in Chromebook, Windows, Mac, iPad OS and Android• Available Online Support, Video Tutorials and Resources for Teacher's Account•Robotics SCORM Compliant Curriculum covers Science, Technology, Engineering and Mathematics <p>Robotics Advanced Learning Kit Bundle</p> <p>Electronics</p> <p>(1) Robot Brain (1) Controller (1) Robot Radio (1) Robot Battery Li-Ion 1100mAh (1) Robot Battery Cable (1) Robot Battery Charger (6) Smart Motor (2) 36:1 Smart Motor Cartridge (1) Vision Sensor (2) Bumper Switch v2 (3) 300mm Smart Cables (3) 600mm Smart Cable (2) 900mm Smart Cable (1) 1200mm Smart Cable (2) 1500mm Smart Cable (1) USB A to Micro Cable</p> <p>Motion</p> <p>(4) 4 inches Omni-Directional Wheel (4) 4 inches Wheels (8) 12T Metal Pinion (8) 36T High Strength Gears (8) 60T High Strength Gears (8) 84T High Strength Gears (32) High Strength Square Gear Inserts (32) Free Spinning Gear Inserts (4) 6T High Strength Sprockets (6) 12T High Strength Sprockets (6) 18T High Strength Sprockets (2) 24T High Strength Sprockets (2) 30T High Strength Sprockets (500) High Strength Chain Links (100) Chain Attachment Links (50) Tank Tread Traction Links (60) Conveyor-belt Base Links (24) Short Conveyor-belt Inserts (20) Medium Conveyor-belt Inserts (20) Tall Conveyor-belt Inserts (2) 2 inches Shafts (4) 3 inches Shafts (2) 4 inches Shafts (16) 12 inches Shafts (4) 12 inches High Strength Shafts (20) Flat Bearings (20) High Strength Shaft Bearings (20) High Strength Clamping Shaft Collars (96) Shaft Collars (32) #8-32 Setscrews (30) Rubber Shaft Collars (8) Intake Rollers (60) 1/16-inch High Strength Shaft Spacers (40) 1/8-inch High Strength Shaft Spacers (20) 1/4-inch High Strength Shaft Spacers (20) 1/2-inch High Strength Shaft Spacers (80) 1/8-inch Nylon Spacers</p>				<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>
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	<p>(80) 1/4-inch Nylon Spacers (70) 3/8-inch Nylon Spacers (70) 1/2-inch Nylon Spacers</p> <p>Structure (2) 1x2x1x25 Aluminum C-Channels (24) 1x2x1x35 Aluminum C-Channels (12) 1x3x1x35 Aluminum C-Channels (6) 5x25 Aluminum Plates (4) 2x2x25 Aluminum Angles (4) 1x1x35 Aluminum Angles (4) 90-Degree Gussets (175) #8-32 x 1/4-inch Locking Star Drive Screws (125) #8-32 x 1/2-inch Locking Star Drive Screws (250) #8-32 x 3/8-inch Star Drive Screws (225) #8-32 x 1/2-inch Star Drive Screws (100) #8-32 x 7/8-inch Star Drive Screws (75) #8-32 x 1.000-inch Star Drive Screws (50) #8-32 x 1.250 inches Star Drive Screws (50) #8-32 x 1.500 inches Star Drive Screws (25) #8-32 x 1.750 inches Star Drive Screws (10) #8-32 x 2.000 inches Star Drive Screws (20) 1-Post Hex Nut Retainers with Bearing Flat (20) 1-Post Hex Nut Retainers (20) 4-Post Hex Nut Retainers (700) #8-32 Nylock Nuts (100) #8-32 Hex Nuts (1) Pillow Block Bearing (40) Bearing Flats (8) Drive Shaft Bar Locks (20) 1/2-inch Standoffs (30) 3/4-inch Standoffs (20) 1-inch Standoffs (40) 2 inches Standoffs (4) 3 inches Standoffs</p> <p>Tools & Accessories (600) 4 inches Zip Ties (50) 11 inches Zip Ties (1) 12 inches X 15 inches Anti Slip Mat (Thick) (6) T15 Star Screwdrivers (6) Open End Wrenches (2) Robot Battery Clips (3) 300mm Smart Cables (1) 600mm Smart Cable (1) 900mm Smart Cable (1) USB A to Micro Cable</p> <p>Wheels (4) 2.75 inches Wheels (4) 3.25 inches Traction Wheels (4) 3.25 inches Omni-Directional Wheels (4) 4 inches Omni-Directional Wheels (4) 4 inches Wheels (4) 4 inches Mecanum Wheels (1) 4 ft. Rope Section (4) Intake Rollers (2) Hand Crank (1) Lead Screw Nut (4) Lead Screw Segments (2) Lead Screw Mounting Brackets (2) 16T Bevel Gears (2) 32T Bevel Gears (4) Worm Wheels (4) Worm Gears (2) Drop Off Cams</p>			<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>
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	<p>(2) Cam Followers (2) Cam Follower Mounting Brackets (2) Universal Joints (1) 2.6 inches Diameter Turntable Bearings (1) 4.25 inches Diameter Turntable Bearings</p> <p>Legacy Sensors (1) Ultrasonic Range Finder (2) Potentiometers</p> <p>Accessories: Rubber Band #64 (10-pack) Synthetic Rubber Bands have dozens of uses on a robot. Their spring-like properties make them perfect for latches, triggers, and return mechanisms. #64 Rubber Bands 3.5 inches x 1/4 inch (89mm x 6mm)</p> <p>Rubber Band #32 (20-pack) Synthetic Rubber Bands have dozens of uses on a robot. Their spring-like properties make them perfect for latches, triggers, and return mechanisms. #32 Rubber Bands 3 inches x 1/8 inch (76mm x 3mm)</p> <p>Engineering Notebook Use the Robotics Engineering Notebook to document the design, construction and iteration of a classroom or competition robot (100) Blank Entry pages 3-hole drilled for binder storage Commonly used formulas and rulers available for easy reference</p> <p>Free Online Curriculum STEM Labs were designed by a team of classroom teachers and cognitive scientists who work closely with the world-renowned Carnegie Mellon Robotics Academy to conduct collaborative research on educational robotics and computer science. Each STEM Lab includes:</p> <ul style="list-style-type: none">• Structured lessons that provide easy entry• Engaging activities with real-world connections• Teacher materials for a painless implementation• Aligned standards for core skills and concepts			<p>Within One Hundred Twenty (120) Calendar Days upon issuance of Notice to Proceed</p>

I hereby certify to comply and deliver all the above requirements.

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Section VII. Technical Specifications

Notes for Preparing the Technical Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying their Bids. In the context of Competitive Bidding, the specifications (*e.g.* production/delivery schedule, manpower requirements, and after-sales service/parts, descriptions of the lots or items) must be prepared to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of transparency, equity, efficiency, fairness, and economy in procurement be realized, responsiveness of bids be ensured, and the subsequent task of bid evaluation and post-qualification facilitated. The specifications should require that all items, materials and accessories to be included or incorporated in the goods be new, unused, and of the most recent or current models, and that they include or incorporate all recent improvements in design and materials unless otherwise provided in the Contract.

Samples of specifications from previous similar procurements are useful in this respect. The use of metric units is encouraged. Depending on the complexity of the goods and the repetitiveness of the type of procurement, it may be advantageous to standardize the General Technical Specifications and incorporate them in a separate subsection. The General Technical Specifications should cover all classes of workmanship, materials, and equipment commonly involved in manufacturing similar goods. Deletions or addenda should then adapt the General Technical Specifications to the particular procurement.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for equipment, materials, and workmanship, recognized Philippine and international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that equipment, materials, and workmanship that meet other authoritative standards, and which ensure at least a substantially equal quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the Special Conditions of Contract or the Technical Specifications.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Technical Specifications to specific standards and codes to be met by the goods and materials to be furnished or tested, the provisions of the latest edition or revision of the relevant standards and codes shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or relate to a particular country or region, other authoritative standards that ensure substantial equivalence to the standards and codes specified will be acceptable.

Reference to brand name and catalogue number should be avoided as far as possible; where unavoidable they should always be followed by the words “*or at least equivalent.*” References to brand names cannot be used when the funding source is the GOP.

Where appropriate, drawings, including site plans as required, may be furnished by the Procuring Entity with the Bidding Documents. Similarly, the Supplier may be requested to provide drawings or samples either with its Bid or for prior review by the Procuring Entity during contract execution.

Bidders are also required, as part of the technical specifications, to complete their statement of compliance demonstrating how the items comply with the specification.

Technical Specifications

PROJECT NAME: PROCUREMENT OF VARIOUS ELECTRONICS AND
COMPUTER ENGINEERING LABORATORY EQUIPMENT
PROJECT NO. QCU-24-ELTE-0753B

Item	Specification	Statement of Compliance
		<i>[Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder’s statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i>
A.	With minimum technical specifications of the following:	
1	<p>IOT Teaching Platform-Intelligent Building System Integration and Internet of Things Technology Training Equipment (ARM Embedded Bus Network)</p> <p>Equipment Overview: *The equipment is composed of platform, power monitoring and alarm module, safety plug terminal module, system master control device, system load simulation components and related programming development software. The platform is equipped with aluminum frame, fireproof panel high-strength electrical box and etc.</p> <p>*Programming development software is equipped with I.O.T network technology related development software, source code and communication protocol is completely open.</p> <p>Technical Parameters: The equipment shall have the following features: (1) Power input: single phase and three wires/ AC220V/60Hz (2) Safety protection: Grounding/leakage (action current ≤30mA)/ overvoltage/ overload/ short circuit, scram protection (3) AC power output: two route isolation (4) DC power output: DC5V/2.5A, DC12V/2A, DC24V/1.5A; (5) Adjustable DC power output: DC0-30V/2A; (6) Dimension at least (length * width* height) 1580 mm × 720 mm × 1760 mm (Frame part) 2040 mm ×</p>	

	<p>720 mm × 1760 mm (fixed with both sides Spherical camera and warning lights)</p> <p>Training contents:</p> <ol style="list-style-type: none">1. System wiring plugging, programming, commissioning, operation, maintenance and repair;2. High-definition coaxial video signal and hard disk recorder connection;3. High-speed dome camera, infrared gun-type camera and monitor and hard disk;4. Through hard disk recorder control high-speed dome camera PTZ movement and lens action;5. Through hard disk recorder set and adjust the high-speed dome camera PTZ presetting and cruise;6. Dynamic monitoring screen changes and automatic recording of peripheral alarm;7. Passive infrared intrusion detector, active infrared detectors, sound and light alarm and8. LAN monitoring of network video surveillance management software;9. Software installation and Plug-in registration;10. Connection of light illumination switch, halogen lamp and the DDC control module and11. Connection of light sensor, LED light and DDC control module and analog input and output programming of Universal_Input function module;12. Connection of passive infrared detectors, fluorescent lamp and DDC control module and delay programming of Universal_Input function module;13. Connection of triple scene button, fluorescent tube and DDC control module and digital logic programming of State_Machine function module;14. Connection of emergency switchanf DDC control module and analog logic programming of Analog_Function function module;15. Light intensity sensor detection training based on CAN bus and GSM communication;16. Air quality sensor detection training based on CAN bus and GSM communication;17. Air temperature and humidity sensor testing and training based on CAN bus and GSM communication;18. Soil temperature and humidity sensor testing and training based on CAN bus and GSM communication;19. Carbon dioxide sensor testing and training based on CAN bus and GSM communication;20. PM2.5 detection training based on CAN bus and GSM communication;21. Weight sensor detection training based on CAN bus and GSM communication;22. Flame sensor detection training based on CAN bus and GSM communication;23. Human pyroelectric sensor detection training based on CAN bus and GSM communication;24. Security detection training based on CAN bus and GSM communication;25. Electric curtain control training based on CAN bus and GSM communication;26. Lighting control training based on CAN bus and GSM communication;27. Air valve control training based on CAN bus and GSM communication;28. Water valve control training based on CAN bus and GSM communication;29. Plant watering control training based on CAN bus and GSM communication;	
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<p>30. Fish feeding control training based on CAN bus and GSM communication;</p> <p>31. Air purifier control training based on CAN bus and GSM communication;</p> <p>32. Cold and warm fan control training based on CAN bus and GSM communication;</p> <p>33. LCD monitor control training based on CAN bus and GSM communication;</p> <p>34. Electric lock control training based on CAN bus and GSM communication;</p> <p>35. Infrared learning and control training based on WIFI communication;</p> <p>36. PC monitoring training based on CAN bus;</p> <p>37. Android monitoring training based on GSM communication;</p> <p>38. Intelligent household monitoring training based on WiFi communication;</p> <p>39. Integrated monitoring software through the video interface server connect hard disk recorder and monitor screen in real-time;</p> <p>40. Integrated monitoring software through the Internet of Things interface server connect the CAN bus and monitor data in real-time;</p> <p>41. Comprehensive integrated monitoring and management training of SAS, BAS and IOT integrated system based on intelligent building integrated monitoring software.</p> <p>Configuration:</p> <p>1.) Aluminum Bracket - 1 set (with brake universal wheel, handle)</p> <p>2.) Fireproof Board - 1 set</p> <p>3.) Electrical Box - 1 pc</p> <p>4.) Protective Barrier - 1 pc</p> <p>5.) LCD - 1 pc</p> <p>6.) Detection Actuator - 1 pc (Function control circuit board, inductance coil, contactor and relay)</p> <p>7.) 2P Air Switch - 3 pcs</p> <p>8.) Leakage Protection Module - 2 pcs</p> <p>9.) Alarm Module - 1 pc</p> <p>10.) Self-reset Button - 1 pc</p> <p>11.) Emergency Switch - 1 pc</p> <p>12.) AC 220V Guide Rail Three-Plug Module - 1 pc</p> <p>13.) AC 220V Guide Rail Two-Plug Module - 1 pc</p> <p>14.) DC0-30V Adjustable Switch Power - 1 pc</p> <p>15.) Adjustable Potentiometer - 1 pc</p> <p>16.) DC Digital Voltage Ammeter - 1 pc</p> <p>17.) Four-layer Alarm Light - 1 pc</p> <p>18.) 10A Safety Plug Terminal - 1 pc</p> <p>19.) 5A Safety Plug Terminal - 1 pc</p> <p>20.) Hard Disk Recorder - 1 pc</p> <p>21.) SATA Hard Disk - 1 pc</p> <p>22.) LCD Monitor - 1 pc</p> <p>23.) High Speed Dome Camera - 1 pc</p> <p>24.) Infrared Camera - 1 pc</p> <p>25.) Self-lock Button with DC24V Green Indicator Light - 2 pcs simulate passive curtain detector and active detector</p> <p>26.) Relay Switching Circuit Board - 2 pcs</p> <p>27.) DC12V Buzzer - 1 pc</p> <p>28.) Video Monitoring Management Software - 1 pc</p> <p>29.) Video Monitoring Wireless Client Software - 1 pc</p> <p>30.) Host Monitor Module - 1 pc bus DDC</p> <p>31.) Network Adapter - 1 pc</p>	
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	<p>32.) Self-lock Button with DC24V Green Indicator Light - 3 pcs simulate illuminous switch, passive infrared probe and emergency switch</p> <p>33.) Self-reset Button with DC24V red - 3 pcs</p> <p>34.) DC24V Yellow Indicator Light - 4 pcs</p> <p>35.) Relay Switching Circuit Board - 10 pcs</p> <p>36.) Potentiometer - 1 pc simulate illuminous sensor</p> <p>37.) DC Voltage Adjustment Conversion Circuit Board - 1 pc</p> <p>38.) DC Voltage Input Transmission Digital Tube - 1 pc simulate LED light</p> <p>39.) DDC Program Software Plug-in Program - 1 pc</p> <p>40.) Embed Host Board - 8 pcs ARM</p> <p>41.) AC Electric, Water Valve and Air Valve Module - 1 pc</p> <p>42.) Illuminous Sensor and Electric Curtain Module - 1 pc</p> <p>43.) PM2.5 Air Quality Sensor Module - 1 pc</p> <p>44.) Air, Earth Temperature and Humidity Sensor and Plant Irrigation Module - 1 pc</p> <p>45.) Pyroelectric Sensor Module - 1 pc</p> <p>46.) Pet Feed and Weighing Module - 1 pc</p> <p>47.) Fire and Carbon Dioxide Sensor Module - 1 pc</p> <p>48.) Security and Access Control Module - 1 pc</p> <p>49.) CAN Communication Adapter - 1 pc</p> <p>50.) Wi-Fi Directional Infrared Controller - 1 pc</p> <p>51.) Wireless Router - 1 pc</p> <p>52.) USB Wireless Network Card - 1 pc</p> <p>53.) GSM Module - 1 pc</p> <p>54.) Wi-Fi Touch Screen Terminal - 1 pc Android system</p> <p>55.) Self-lock Button with DC6.3V Green Indicator Light - 1 pc simulate passive curtain probe</p> <p>56.) Self-reset Button with DC6.3V Red Indicator Light - 2 pcs</p> <p>57.) DC6.3V Yellow Indicator Light - 7 pcs</p> <p>58.) DC6.3V Green Indicator Light - 1 pc</p> <p>59.) DC6.3V Red Indicator Light - 1 pc</p> <p>60.) PM2.5 Detector Simulator - 1 pc Potentiometer A/Dtransmit, RS232 communication protocol output</p> <p>61.) Carbon Dioxide Sensor Simulator - 1 pc</p> <p>62.) Pressure Transmit Simulator - 1 pc</p> <p>63.) Air Conditioner, Air Purifier and TV Simulator - 1 pc infrared remote receive</p> <p>64.) Infrared Remoter - 1 pc</p> <p>65.) ARM Emulator - 1 pc</p>	
2	<p>ADVANCED FPGA DEVELOPMENT SYSTEM</p> <p>Description:</p> <ul style="list-style-type: none"> • The trainer shall be a stand-alone system which contains stabilized DC power supplies, development board, and experiment board that enables students to learn digital system design proficiently. • The users must be able to design combinational and sequential circuits, multiplexer and demultiplexer, encoder and decoder, logic unit, ALU, counter, shift register and more. • The Training system shall be based on the latest digital technology in conjunction with EDA experimental teaching material. • The Trainer shall have FPGA chip with higher logic elements and large number of pins. • Provides AD/DA converter, keypad, LCD display, PS/2, VGA, UART, SCI interface, LEDS, 8-digit 7-segment LED display, step motor and DC motor driver circuits. 	

	<p>The FPGA Training Equipment shall have the following Technical Details:</p> <p>1. Download Board (1) Chip Model: Altera cyclone EP1C12Q240C8 (2) Clock: 40MHz (3) Configuration Interface: USB Blaster (4) Configuration Memory: 2MB flash SEEPROM</p> <p>2. Peripheral I/Os (1) Power Unit: a. 3.3V/3A b. 5V/3A (2) Input and Clocking Unit: a. 4 sets of 8-bit DIP Switch b. 4x4 matrix Keypad c. Rotary Encoder Switch (A/B phase) d. Infrared Coupled Receiver e. 10 sets of fixed selectable clock: 0.1Hz, 1Hz, 10Hz, 100Hz, 1KHz, 10KHz, 100KHz, 1MHz, 10MHz, 40MHz f. 1 Toggle Switch g. 4 Configurable Push-button: Positive/negative pulse output and debounced / non-debounced pulse output. (3) Output Unit a. 8 sets of 8-bit Buffered LED (red/orange/yellow/green) b. 4 Independent LED (red) c. 2 groups of 4-digit 7-segment Scanning Display d. 128x64 Graphic / Character LCD Display e. 8x8 Dot Matrix LED Display (dual color) f. 16-segment Display g. Speaker (8Ω/0.5W) h. Infrared Coupled Transmitter (4) Interface Unit: a. PS/2 Interface b. VGA Interface (8 x 8 x 8 bit color) c. RS-232 Interface (5) Motor Unit: a. Step Motor: 12V/250mA, 7.5 degree / step b. 4 Poles Step Motor Driving Circuit: Each pole drives 60V/500mA c. 4 Stage PWM-Bridged Control Circuit: Each stage drives 50V/3A with forward / reverse and (6) Chip Communication and Expansion Unit: a. 8-bit D/A Converter (memory mapping interface) b. 8-bit A/D Converter (memory mapping interface) c. 256K bits SEEPROM (IIC interface) d. 12-bit Dual Channel Serial D/A converter (SPI Interface) e. Micro-controller 89C51 (memory mapping interface) f. 40-pin External Connector x 1 g. 20-pin external connector x 2</p> <p>The equipment shall be able to perform the following experiments:</p> <p>Basic logic circuit design and application 1 Software installation and operation 2 Basic combinational logic circuit 3 Basic sequential logic circuit 4 Basic arithmetic logic circuit 5 Using mega function 6 Numerical code conversion circuit</p> <p>Advanced logic circuit design and application 1 48-bit up/down counter with load, clear and enable</p>	
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	<p>2 Infrared coupled transceiver controls 8-digit decimal scanning counter</p> <p>3 Rotary encoder switch detector</p> <p>4 16-segment LEDs digital display decoder</p> <p>5 8 x 8 x 2 color dots matrix graphic display control</p> <p>6 4 x 4 scanning matrix keypad control</p> <p>7 128 x 64 LCD module display control</p> <p>8 ADC conversion with hexadecimal and decimal display</p> <p>9 DAC conversion for precise frequency generator</p> <p>10 Precise function generator controlled by keypad</p> <p>11 8 x 8 x 8 color pixels of VGA display control</p> <p>12 Interfacing with synchronous serial PS/2 keyboard</p> <p>13 Step motor position controlled by keypad</p> <p>14 Step motor speed controlled by keypad</p> <p>15 Using built in real time logic analyzer</p> <p>16 High speed frequency and period counter</p> <p>17 Digital clock</p> <p>18 Music box</p> <p>19 Electronic piano</p> <p>20 Digital cipher locker</p> <p>21 Digital cipher locker with hopping code</p> <p>22 Bingo machine</p> <p>23 Electronic dices</p> <p>24 Traffic light control</p> <p>25 Serial DAC transmission</p> <p>26 IIC transmission</p> <p>27 UART transmission</p> <p>28 Interfacing with MCU</p> <p>29 Building NIOS CPU from SOPC developmental system</p> <p>The set shall have the following Accessories:</p> <p>1 Experiment manual x 1</p> <p>2 Software / source code / documents CD or flash drive x 1</p> <p>3 USB-Blaster x 1</p> <p>4 RS-232 to USB adapter x 1</p> <p>5 Lead wires x 1 (set)</p> <p>6 Extra jumpers x 1 (set)</p>	
3	<p>MICROCOMPUTER CONTROL EQUIPMENT</p> <p>FEATURES</p> <p>1. The trainer includes various I/O peripherals suitable for learning Microcomputer Control Equipment</p> <p>2. There are step-by-step procedures in the experiment manual for the Python programming language.</p> <p>3. An independent power supply is provided to maximize the number of peripheral modules.</p> <p>4. Three sets of I/O ports are extended around the working area for easy signal connection.</p> <p>5. Two sets of independent DAC/ADC are built in to expand more experimental circuits.</p> <p>6. A touch screen is built in for direct use and control.</p> <p>TECHNICAL SPECIFICATION:</p> <p>1.Power</p> <p>(1) Input: 110V/220V AC, 50Hz/60Hz</p> <p>(2) Output: +5V/3A, +3.3V/1A</p> <p>2. Control Board</p> <p>(1) Microcomputer Control Equipment 3 B+</p> <p>(2) Power: built-in USB power</p>	

	<p>3. Display</p> <p>(1) Size: 7-inch, touch screen</p> <p>(2) Resolution: 800 x 480 at 60fps, 24-bit color</p> <p>(3) Protection: metal frame with protective sticker</p> <p>4. Prototyping Area</p> <p>(1) Device: RGB LED, button, buzzer</p> <p>(2) ADC/DAC: 2 sets, address 0x48 and 0x49, NXP PCF8591, 8-bit resolution, analog input x 4, analog output</p> <p>(3) Power jack: +5V/GND jump wire socket x4 +5V/GND wafer socket x4</p> <p>(4) I/O socket: 40-pin female connector x 3</p> <p>(5) Brick plate: 32x16 brick unit</p> <p>5. Faya-nugget Electronic Blocks All blocks contain two wafer sockets for power connection, a DuPont pin-holder for signal connection, and four corner holes for perfect fixing on the brick plate.</p> <p>(1) Digital input</p> <p>a. BCD switch</p> <p>b. 8-bit DIP switch</p> <p>c. Self-Lock switch</p> <p>d. 5-bit TACT switch</p> <p>e. Toggle switch</p> <p>(2) Analog input</p> <p>a. Joystick switch</p> <p>b. Slide potentiometer</p> <p>(3) Environment detection</p> <p>a. AD-590 temperature sensor</p> <p>b. Hall sensor</p> <p>c. Photo interrupter</p> <p>d. Proximity sensor</p> <p>e. Reed switch</p> <p>(4) Output module</p> <p>a. Piezoelectric buzzer</p> <p>b. Step motor</p> <p>c. DC motor</p> <p>d. 2-axis servo</p> <p>(5) Accessories</p> <p>a. Experiment manual</p> <p>b. Wire pack</p> <p>c. Brick pack</p> <p>d. 16 x 32 brick plate x 2</p> <p>e. Brick post x 75</p> <p>f. Brick cap x 75</p> <p>g. Power wire x 20</p> <p>Accessories</p> <p>1.Operational Manual</p> <p>2.Power Cord</p> <p>3.Experiment CD or flash drive</p>	
4	<p>ROBOTICS ADVANCED LEARNING KIT BUNDLE</p> <ul style="list-style-type: none"> •Contains Robotics Advanced Learning Kit •Contains over thousands of pieces per Kit, a wide variety of aluminum structure, a Robot Control System, Vision Sensor, tools, and accessories. <p>Programming Software</p> <ul style="list-style-type: none"> •With Programming Software and Curriculum - Accessible in Chromebook, Windows, Mac, iPad OS and Android •Programming Languages Scratch 3.0, C++, Python 	

<p>eLearning - Curriculum and Certification</p> <ul style="list-style-type: none"> •With Teacher and Student Portal Accessible through Web in Chromebook, Windows, Mac, iPad OS and Android • Available Online Support, Video Tutorials and Resources for Teacher's Account •Robotics SCORM Compliant Curriculum covers Science, Technology, Engineering and Mathematics <p>Robotics Advanced Learning Kit Bundle</p> <p>Electronics</p> <ul style="list-style-type: none"> (1) Robot Brain (1) Controller (1) Robot Radio (1) Robot Battery Li-Ion 1100mAh (1) Robot Battery Cable (1) Robot Battery Charger (6) Smart Motor (2) 36:1 Smart Motor Cartridge (1) Vision Sensor (2) Bumper Switch v2 (3) 300mm Smart Cables (3) 600mm Smart Cable (2) 900mm Smart Cable (1) 1200mm Smart Cable (2) 1500mm Smart Cable (1) USB A to Micro Cable <p>Motion</p> <ul style="list-style-type: none"> (4) 4 inches Omni-Directional Wheel (4) 4 inches Wheels (8) 12T Metal Pinion (8) 36T High Strength Gears (8) 60T High Strength Gears (8) 84T High Strength Gears (32) High Strength Square Gear Inserts (32) Free Spinning Gear Inserts (4) 6T High Strength Sprockets (6) 12T High Strength Sprockets (6) 18T High Strength Sprockets (2) 24T High Strength Sprockets (2) 30T High Strength Sprockets (500) High Strength Chain Links (100) Chain Attachment Links (50) Tank Tread Traction Links (60) Conveyor-belt Base Links (24) Short Conveyor-belt Inserts (20) Medium Conveyor-belt Inserts (20) Tall Conveyor-belt Inserts (2) 2 inches Shafts (4) 3 inches Shafts (2) 4 inches Shafts (16) 12 inches Shafts (4) 12 inches High Strength Shafts (20) Flat Bearings (20) High Strength Shaft Bearings (20) High Strength Clamping Shaft Collars (96) Shaft Collars (32) #8-32 Setscrews (30) Rubber Shaft Collars (8) Intake Rollers (60) 1/16-inch High Strength Shaft Spacers (40) 1/8-inch High Strength Shaft Spacers (20) 1/4-inch High Strength Shaft Spacers (20) 1/2-inch High Strength Shaft Spacers (80) 1/8-inch Nylon Spacers (80) 1/4-inch Nylon Spacers 	
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	<p>(70) 3/8-inch Nylon Spacers (70) 1/2-inch Nylon Spacers</p> <p>Structure</p> <p>(2) 1x2x1x25 Aluminum C-Channels (24) 1x2x1x35 Aluminum C-Channels (12) 1x3x1x35 Aluminum C-Channels (6) 5x25 Aluminum Plates (4) 2x2x25 Aluminum Angles (4) 1x1x35 Aluminum Angles (4) 90-Degree Gussets (175) #8-32 x 1/4-inch Locking Star Drive Screws (125) #8-32 x 1/2-inch Locking Star Drive Screws (250) #8-32 x 3/8-inch Star Drive Screws (225) #8-32 x 1/2-inch Star Drive Screws (100) #8-32 x 7/8-inch Star Drive Screws (75) #8-32 x 1.000-inch Star Drive Screws (50) #8-32 x 1.250 inches Star Drive Screws (50) #8-32 x 1.500 inches Star Drive Screws (25) #8-32 x 1.750 inches Star Drive Screws (10) #8-32 x 2.000 inches Star Drive Screws (20) 1-Post Hex Nut Retainers with Bearing Flat (20) 1-Post Hex Nut Retainers (20) 4-Post Hex Nut Retainers (700) #8-32 Nylock Nuts (100) #8-32 Hex Nuts (1) Pillow Block Bearing (40) Bearing Flats (8) Drive Shaft Bar Locks (20) 1/2-inch Standoffs (30) 3/4-inch Standoffs (20) 1-inch Standoffs (40) 2 inches Standoffs (4) 3 inches Standoffs</p> <p>Tools & Accessories</p> <p>(600) 4 inches Zip Ties (50) 11 inches Zip Ties (1) 12 inches X 15 inches Anti Slip Mat (Thick) (6) T15 Star Screwdrivers (6) Open End Wrenches (2) Robot Battery Clips (3) 300mm Smart Cables (1) 600mm Smart Cable (1) 900mm Smart Cable (1) USB A to Micro Cable</p> <p>Wheels</p> <p>(4) 2.75 inches Wheels (4) 3.25 inches Traction Wheels (4) 3.25 inches Omni-Directional Wheels (4) 4 inches Omni-Directional Wheels (4) 4 inches Wheels (4) 4 inches Mecanum Wheels (1) 4 ft. Rope Section (4) Intake Rollers (2) Hand Crank (1) Lead Screw Nut (4) Lead Screw Segments (2) Lead Screw Mounting Brackets (2) 16T Bevel Gears (2) 32T Bevel Gears (4) Worm Wheels (4) Worm Gears (2) Drop Off Cams (2) Cam Followers</p>	
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	<p>(2) Cam Follower Mounting Brackets</p> <p>(2) Universal Joints</p> <p>(1) 2.6 inches Diameter Turntable Bearings</p> <p>(1) 4.25 inches Diameter Turntable Bearings</p> <p>Legacy Sensors</p> <p>(1) Ultrasonic Range Finder</p> <p>(2) Potentiometers</p> <p>Accessories:</p> <p>Rubber Band #64 (10-pack) Synthetic Rubber Bands have dozens of uses on a robot. Their spring-like properties make them perfect for latches, triggers, and return mechanisms. #64 Rubber Bands 3.5 inches x 1/4 inch (89mm x 6mm)</p> <p>Rubber Band #32 (20-pack) Synthetic Rubber Bands have dozens of uses on a robot. Their spring-like properties make them perfect for latches, triggers, and return mechanisms. #32 Rubber Bands 3 inches x 1/8 inch (76mm x 3mm)</p> <p>Engineering Notebook Use the Robotics Engineering Notebook to document the design, construction and iteration of a classroom or competition robot (100) Blank Entry pages 3-hole drilled for binder storage Commonly used formulas and rulers available for easy reference</p> <p>Free Online Curriculum STEM Labs were designed by a team of classroom teachers and cognitive scientists who work closely with the world-renowned Carnegie Mellon Robotics Academy to conduct collaborative research on educational robotics and computer science.</p> <p>Each STEM Lab includes:</p> <ul style="list-style-type: none"> • Structured lessons that provide easy entry • Engaging activities with real-world connections • Teacher materials for a painless implementation • Aligned standards for core skills and concepts 	
B.	Compliance to the Schedule of Requirements (Section VI)	

I hereby certify to comply and deliver all the above requirements.

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Section VIII. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. Any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary “pass/fail” criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class “A” Documents

Legal Documents

- ☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) **in accordance with Section 8.5.2 of the IRR;**

Technical Documents

- ☐ (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid (in a **FORM prescribed by the QC-BAC-GOODS AND SERVICES**); **and**
- ☐ (c) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents (in a **FORM prescribed by the QC-BAC-GOODS AND SERVICES**); **and**
- ☐ (d) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
or
Original copy of Notarized Bid Securing Declaration; **and**
- ☐ (e) Conformity with Section VI. (Schedule of Requirements) and Section VII. (Technical Specifications), which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable; **and**
- ☐ (f) Original duly signed Omnibus Sworn Statement (OSS);
and if applicable, Original Notarized Secretary’s Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- ☐ (g) The prospective bidder’s computation of Net Financial Contracting Capacity (NFCC) (in a **FORM prescribed by the QC-BAC-GOODS AND SERVICES**);
or
A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

Class “B” Documents

- ☐ (h) If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence;
or
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

Other documentary requirements under RA No. 9184 (as applicable)

- ☐ (i) [For foreign bidders claiming by reason of their country’s extension of reciprocal rights to Filipinos] Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
- ☐ (j) Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

II. FINANCIAL COMPONENT ENVELOPE

- ☐ (a) Original of duly signed and accomplished Financial Bid Form; **and**
- ☐ (b) Original of duly signed and accomplished Price Schedule(s).

III. REQUIRED DOCUMENTS in BDS SECTION 20.2 and 21.2

- Statement of Warranty: One (1) year on parts; Two (2) years on service, and continuous technical support.
- Proof of ISO or any relevant certification to ensure that the quality of products and services complies with industry and international standards.
- Brochure catalog indicating the brand name and model for all the items being procured.
- Notarized Affidavit of Undertaking stating compliance to the following:
 - a. That the Bidder must conduct after sales training for the end-user after the completion of delivery for 18 Engineering faculty members and Laboratory personnel for 5 days.
 - b. That the Bidder must provide the following After Sales Service:
 - Free trainer's training
 - Free Semi-Annual Re-training with certificate, on request
 - Free Consultation/Seminar, on request
 - Free Annual product inspection, on request
 - Free Product demonstration, on Request
 - c. That the Bidder must provide continuous technical support to equipment parts including services and repair as long as the equipment is functional.
 - d. That the equipment must be supplied with training manuals in English.
- Trainor's certification from the manufacturer to assure the quality of training that will be provided.
- Authorization to bid from the manufacturer to ensure brand new equipment parts , training, end-user protection/ warranty and after sales services.

Note:

1. Please refer to
[\[https://drive.google.com/file/d/1uiYurh5WrpBL5B_pqpzAb62yucAblR1p/view?usp=sharing\]](https://drive.google.com/file/d/1uiYurh5WrpBL5B_pqpzAb62yucAblR1p/view?usp=sharing) for the following requirements:
 - a. Computation of NFCC;
 - b. List of All Ongoing Contracts/List of Contracts already awarded but not yet started;
 - c. Statement of Single Largest Completed Contract
2. Please refer to GPPB Resolution No. 16-2020 for the following requirements:
 - a. Bid Form;
 - b. Price Schedule (for Goods Offered from Abroad/ Within the Philippines)
 - c. Bid Securing Declaration; and
 - d. Omnibus Sworn Statement

