

Tender No:

KDU/PRO/CAP/ 170/2020



General Sir John Kotelawala Defence University,
Kandawala Estate, Ratmalana,
Sri Lanka.
T: Phone: 2632028 , 2622995
Fax : 2622504, 2623599
Web: www.kdu.lk

25 / 06 / 2020

INVITATION TO BID AND GENERAL CONDITIONS OF TENDER

1. The Vice Chancellor of the General Sir John Kotelawala Defence University, as the Chairman, Department Procurement Committee Invites Bid/s from prospective Bidders for supply of **item/s listed in the schedule in Annex “A”**. **The relevant specifications of the item/s are indicated in Annex “B”**.

2. **CLOSING DATE & TIME**. The tender will close at 1000 hrs. on 21 / 07 /2020. Any Bid submitted after the closing time of the tender will be rejected & unopened such bids will be returned to the bidder.

3. **VALIDITY OF BID**. The bid submitted under this tender **must be valid for a period of 120 days from the date of closing of tender**.

4. **BID BOND / GUARANTEE**.

(a) If the quoted bid value exceeds Rs: 2,000,000.00, such Bids should be accompanied with 1% of Bid Value an “on demand” and “unconditional” Bid Bond/Guarantee for a sum of **Rs:** in the format given in Annex “C” through a recognized local Bank or Insurance Company registered in Sri Lanka which is authorized by the Insurance Board of Sri Lanka to issue such Bid Guarantees. All Bid Bond/Guarantees should be valid for at least 30 days more than the validity period of bids, ie, for 150 days from the date of Bid opening. **Cheques will not be accepted as Bid Guarantee**.

(b) Submission of insufficient Bid Bond/Guarantee value or period will be considered as a “**major deviation**” and such offer will not be considered for further procurement action and will be rejected.

5. **VALUE ADDED TAX**. The Bidders who bid for locally delivered items must have the VAT registration. The VAT portion must be shown separately in the price schedule in Annex “A” and VAT registration number must be indicated. If the quoted item is exempted from VAT or Bidding Company is not liable for VAT, reference number and date of relevant Act number/Gazette notification/a certificate (as applicable) **issued for the current financial year** from the Commissioner General of Inland Revenue to that effect should be submitted along with the Bid.

6. **BID SUBMISSION**. The **bidder must duly sign at the last page (before Annexes) of this document** indicating the name of the signatory and the name of the company & place the company common seal to confirm the acceptance of tender conditions. **The Bid/s that do not include authorized signature will be rejected**. The Bid/s duly signed by the bidder enclosed and sealed in an appropriate cover addressed to the following address should be sent by registered post or could be deposited in the **appropriate tender box placed at General Sir John Kotelawala Defence University, Kandawala Estate, Ratmalana** (at the Main Entrance of General Sir John Kotelawala Defence University) on or before the time & date specified for the closing of tender. **The tender reference number, date & time of closing tender should be indicated & underlined at the top left corner of the envelop**.

Tender Ref No :

Closing Date & Time :

The Chairman,
Department Procurement Committee,
General Sir John Kotelawala Defence University,
Kandawala Estate, Ratmalana,
Sri Lanka.

7. The Bid/s must be submitted in the attached schedule of prices in Annex “A” as applicable. However, bidders could use similar formats prepared with their own letter heads with all the details mentioned therein and submit in **three copies along with duly signed copy of a General Conditions of tender**. The Bid/s must contain **Technical Literature, Pamphlets, Drawings and Quality Standard Certificate etc** necessary to determine characteristics of items offered and in case of Machinery/Vehicles & Equipment, servicing and workshop data/after sales service, back up facilities or any other facilities provided by the supplier.

8. **SUBMISSION OF SAMPLES/PAYMENT OF TESTING CHARGES**.

When it is required to submit samples, **every offer** must be accompanied with pre - marked samples. The marking of samples **indicating the Bidder & Offer number** must be done and the samples must be handed over to the officer at same place where tender box is placed **on or before the closing date & time of the Bid**. Samples submitted after closing time of the Bid will be rejected. The documents such as Air Way Bills etc, will not be accepted in place of samples. When the testing charges are required to be paid, bidders shall pay testing charges separately **for all offers** indicated in their bid/s.

(1) **Samples**. Please submit samples.

(2) **Testing Charges**. A sum of Rs. **per offer** must be paid to the Bursar of KDU, prior to the submission of bid and a copy of the receipt must be annexed to the bid. It is the responsibility of bidder to inform the Cashier of the Account Office to note the tender number on the receipt issued for such payments.

8. **BID OPENING**. All duly received bids **will be opened immediately after the scheduled closing time of Bids at the same venue**. Bidders or their accredited agents could be present at the time of opening of bids.

9. **PRICES.**

For locally delivered items (including locally manufactured items & foreign items imported by the bidders) price must be quoted in Sri Lankan Rupees, inclusive of all charges for delivery of items to General Sir John Kotelawala Defence University Ratmalana, Faculty of Allied Health Science (FAHS) Werahera and University Hospital Werahera or Southern Campus Sooriyawewa. **Unit price, VAT and Total price should be clearly indicated in schedule in Annex “A”.** Other than VAT, all other type of taxes (eg : NBT, BTT, etc.) should not be indicated separately and should be included in unit price.

10. **RESTRICTED TENDERS.**

Invitation to Bids are circulated among the registered suppliers with Ministry of Defence (MOD), only bids submitted by registered suppliers will be allowed for consideration. However, Chairman, Department Procurement Committee reserves the right to invite the bids from multiple combinations of Procurement Methods as stipulated in Chapter III of the Government Procurement Guideline, 2006 to ensure highest competitiveness.

11. **PERFORMANCE BOND/GUARANTEE.**

A successful bidder shall furnish a Performance Bond/Guarantee in the form of “On Demand” & “Unconditional” Bank/Insurance Guarantee for a sum equivalent to 10% of the contract value for every contract that exceeds Rs. 500,000.00 or equivalent amount in foreign currency through a recognized Commercial Bank registered in Sri Lanka or through an Insurance Company authorized by the Insurance Board of Sri Lanka to issue such Performance Guarantee for this purpose, **within two weeks from the date of notification of award.** The proceeds of the Performance Bond/Guarantee shall be payable to the Vice Chancellor of the General Sir John Kotelawala Defence University as compensation for any loss resulting from the supplier’s failure to complete his performance obligations under the contract. If the contracted supplier fails to deliver the items on time or fails to complete the works as per the agreed contract, **THE TOTAL VALUE OF THE PERFORMANCE BOND/GUARANTEE** will be forfeited. If only partial delivery is made during the agreed contract period, the corresponding value percentage of undelivered quantity from the Performance Bond/Guarantee will be forfeited.

12. **SIGNING OF CONTRACT.**

The notification of award will be transmitted to the successful bidder by post, by fax or e-mail. This notification constitutes the formation of the contract. The successful bidder should submit his written acceptance for the award and performance bond / guarantee (For awards over Rs. 500,000.00 without VAT) within 14 days of receipt of such notification. Upon acceptance of the award and furnishing of the Performance Bond/Guarantee, the successful bidder will have to enter into a formal contract with the Vice Chancellor of the General Sir John Kotelawala Defence University by signing the Contract.

13. **DELIVERY.**

Preference will be given for early delivery. In case of bulk supplies for locally manufactured items, the delivery of **total quantity must be completed within 120 days of signing of contract,** unless mutually agreed for extended delivery period with General Sir John Kotelawala Defence University. **The bidder/s must indicate the proposed delivery schedule in Annex “D”.** In the event of placing a purchase order with the successful bidder, the total quantity so ordered must be supplied as one consignment unless part deliveries are agreed upon in the contract. The deliveries not made as per agreed delivery schedule will be considered as bad performances by the suppliers and **no extended delivery period will be authorized.** Under extreme unavoidable conditions too, the Chairman, Department Procurement Committee (Vice Chancellor of the General Sir John Kotelawala Defence University) reserves the right to grant or refuse delivery period extensions only within the current financial year with or without liquidated claim for delayed deliveries and that decision will be final.

14. **LIQUIDATED DAMAGES.**

In case of delivery period extensions requested by the successful bidder, a sum equivalent to 1% of the total value of the delayed supply per delay of one week or part thereof may be deducted from the payment due to the supplier from the General Sir John Kotelawala Defence University as liquidated damages up to the maximum limit of 12% of the total value of delayed supplies.

15. **PAYMENT TERMS FOR LOCALLY DELIVERED ITEMS.**

Payment will be made after acceptance of items which should be subjected to a pre-acceptance inspection/testing by General Sir John Kotelawala Defence University authorities. The delivery made to the General Sir John Kotelawala Defence University should not be considered as quantities taken over by General Sir John Kotelawala Defence University until items are properly accepted after pre-acceptance inspection. Any item that does not conform to the specifications or already approved sample will be rejected & it is the responsibility of the supplier to remove them from General Sir John Kotelawala Defence University stores/premises within 07 working days of such intimation (either verbal or written) at his own cost and replace them with items conforming to specification within one month of such rejection. The bidder shall allow approximately 60-90 days’ period of credit from the date of acceptance of items for Account Office, General Sir John Kotelawala Defence University to obtain liquid cash from General Treasury & release the payment.

16. **RIGHTS OF THE PROCUREMENT COMMITTEE.**

The Department Procurement Committee reserve the right to accept or reject whole or part of this tender and their decision will be final. The successful bidders will be notified. Information with regard to rejected or unsuccessful bids will not be communicated.

Thanking You,
Yours faithfully,

J D B Galagoda
For Vice Chancellor
General Sir John Kotelawala Defence University

I/We agree to abide by the conditions of tender and undertake to supply the items as per delivery schedule mentioned in the contract, in the event of an order been placed with me/my firm/company as a result of this tender.

..... Signature

..... Name of Signatory

.....Name of the Company/Bidder

Date :-

Company seal

SCHEDULE OF PRICES FOR LOCALLY DELIVERED ITEMS

S/N	ITEMS	DENO	QTY	PRICE EACH SLRS	TOTAL PRICE SLRS
	<u>PURCHASE OF LABORATORY REQUIRMENT FOR FACULTY OF COMPUTING 13 (electronic items)</u>				
01	Arduino starter Kits ((Including BT, WIFI, GSM modules) - IOT Laboratory	No	20		
02	Storage box - IOT Laboratory	No	20		
03	Development Board (Arduino Yun) - IOT Laboratory	No	20		
04	Development Board (Arduino UNO) - IOT Laboratory	No	20		
05	Development Board (Beagle Bone Black - Rev C) - IOT Laboratory	No	20		
06	Raspberry Pi with SD card(32 Gb) - IOT Laboratory	No	20		
07	Quad copter - IOT Laboratory	No	2		
08	Arduino Mega - Computer Science Research Laboratory for AI, HCI and Computational Mathematics	No	55		
09	Raspberry Pi 4 Starter Kit - Computer Science Research Laboratory for AI, HCI and Computational Mathematics	No	10		
10	Microcontroller Ics SET - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	1		
11	Adjustable laboratory power Supply - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	27		
	PCB Bread Board	No	84		
	Multi meter (Digital and Analog)	No	31		
	Breadboard Power Supply	No	84		
	Soldering iron + Hot Air Gun De soldering Station	No	27		
	Soldering ions (30W)	No	5		
	De soldering Pump	No	5		
	Electric DE soldering Pump	No	5		
12	Precision Screwdriver tool Set - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	27		
	Magnifying glass	No	25		
	Glue Gun	No	5		
	Digital Microscope	No	27		
	PCB Shear	No	1		

	High stability Analog, Dual Trace Oscilloscope	No	2		
	Digital Oscilloscope 2 analog channels	No	27		
	Function Generator	No	25		
13	FPGA Development Kit (SPATRAN 6) - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	21		
	EasyPIC v7 Microcontrollers development board	No	21		
	8086 MICROPROCESSOR TRAINER KIT	No	21		
	Digital Signal Processing Trainer kit	No	5		
	8051 Microcontroller Development Board	No	21		
	AVR Microcontroller Development Board	No	21		
	PIC KIT Programmer	No	5		
	PIC16F877 Development Kit	No	5		
14	Raspberry Pi 4 Model B+ / 32GB memory card /power supply unit - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	40		
	Arduino Starter Kit (Original)	No	40		
	Node MCU with micro USB cable	No	40		
15	Robotic arm trainer (six axis, desktop/mini) Kit - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	1		
	3D printer (Full Metal Extreme High Accuracy Large Printo)	No	1		
	Smart Humanoid reception Robot Voice robot	No	1		
	PCB Photo typing Machine	No	1		
16	ESP 32 Development Boards - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	40		
	Zigbee IoT Starter Kits	No	2		
	LoRa IoT Training Kit *	No	2		
	ESP 32 Development Boards	No	40		
	Programmable Logic Controller Training Teaching Equipment(S300)	No	2		
	Analogue Electronics Experiment Kit (KL 21001 Linear Circuit Lab)	No	2		
17	Azure Kinect DK (3D Camera) - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	2		
	Raspberry Pi Camera V2 - 8MP	No	10		
	IP 360 Camera	No	10		
	LiDar Sensor	No	10		
	Jetson nano development kit	No	10		
	LCR Meter	No	2		
	NI My Daq kits	No	2		

18	Robot remote center of motion mechanism rm - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	1		
	CNC Machine	No	5		
	e 6WD Off-Road Robot Car With Camera For Arduino UNO (chase)	No	1		
19.	Power tool Computer Engineering Electronic, Robotic Laboratory and Research Laboratory	No	1		
	Stepper Moter (Havvy) with Bridge circuit	No	5		
	Stepper Motors57HS7630 with Bridge circuit	No	10		
	CoDrone Pro	No	2		
	MPU6050 - Triple Axis Accelerometer & Gyro Breakout	No	21		
	SIM900 GSM + GPRS Shield development board	No	10		
	ENC28J60 Ethernet LAN Module	No	21		
	Stepper Motor Driver Controller Board H- bridge For Arduino	No	21		
	HC-SR04 Ultrasonic Distance Measuring Transducer Sensor	No	21		
	Arduino GPS shield	No	10		
	Arduino Compatible DHT22 Digital Temperature Humidity Sensor Module	No	21		
	Pulse Sensor	No	10		
	Solderless Breadboard Jumper wire strip (Male to Male)	No	60		
20	LED - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	1200		
	Relay	No	100		
	Resistor (1/2 W different values)* 500PCs Pcket	No	16		
	Diode(Zener,Ref, Other)*	No	100		
	Capacitor*	No	100		
	Transistors	No	700		
	Digital Electronic items	No	50		
	Switches*	No	200		
	Analog IC	No	200		
	Digital Ics	No	50		
21	Soldering Iron Tip Cleaner - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	10		
	Temperature Tolerant Solder Tip Cleaning Pads	No	10		
	Vacuum Suction Pens Set for Electronics DIY	No	10		
	Soldering Remover Ball - Colour Assorted	No	10		
	MCN-300 Soldering Solder Paste 63/37 25- 45um	No	10		

	Weak Acid Soldering Solder Paste	No	10		
	LCD 16x2 display	No	21		
	CO2 sensor (mq2)	No	21		
	Metal detectors	No	21		
	Electronic Items	No	1		
	Lead-Free solder x6 rolls	No	6		
22	Cabinet organizer (plastic item holder trays for electronic ICs) - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	35		
23	SMT Soldering Machine - Computer Engineering Electronic , Robotic Laboratory and Research Laboratory	No	1		
	TOTAL				
	DISCOUNT				
	TOTAL(AFTER DISCOUNT)				
	VAT %				
	GRAND TOTAL				

(A) OTHER DETAILS

- (i) DELIVERY PERIOD -
- (ii) MAKE & MODEL -
- (iii) VALIDITY PERIOD -
- (iv) WARRANTY PERIOD -
- (v) PAYMENT TERMS - CREDIT
- (vi) COUNTRY OF ORIGIN -
- (vii) DISCOUNT IF ANY -
- (viii) ANY OTHER TAXES -

(B) VAT DETAILS

- VALUE ADDED TAX PERMANENT REGISTRATION CERTIFICATE / VAT EXEMPTION LETTER ISSUED BY DEPARTMENT OF INLAND REVENUE TO BE ATTACHED

(C) PLACE OF DELIVERY

- ITEMS TO BE DELIVERED TO THE "GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY, KANDAWALA STATE, RATMALANA ALONG WITH THE COPY OF ORDER AND RELEVANT INVOICE.

(D) Any queries / information with regard to this procurement / tender could be obtained from Officer Commanding Logistics Services office at General Sir John Kotelawala Defence University through e-mail ocls@kdu.ac.lk and by telephone number 0112622504 during working hours.

NOTE : UNIT PRICE AND TOTAL PRICE ARE TO BE INDICATED CLEARLY IN THE TENDER, IF NOT QUOTATION WILL BE REJECTED.

SUPPLIER NAME -

ADDRESS -



(E) Bid Reference : KDU/PRO/CAP/ 170 /2020

.....
DATE

01. Arduino starter Kits (Including GSM modules, WIFI and BT module)

• **Technical specification**

Package 1: 1 x Arduino UNO R3 Compatible Board 1 x Bead Board 800-points 1 x 16x2 Liquid Crystal Display 1 x Infrared Remote Controller with Receiver 1 x 4x4 Matrix Ribbon Keypad 1 x 1 Channel Relay Module 1 x Ultrasonic Sensor HC-SR04 1 x Light Dependent Resistor 1 x LM35 Temperature Sensor (Original) 1 x Tower Pro Micro Servo SG90 1 x Toy Motor

Or

Package 2: 10 x 10kΩ 5% 0.25W Resistors 20 x 330Ω 5% 0.25W Resistors 1 x 10kΩ 0.5W Variable Resistors 1 x 10uF 50V Capacitors 2 x 100uF 50V Capacitors 2 x 22pf 50V Capacitors 2 x 0.1uF 50V Capacitors 1 x 74LS595 Shift Register 1 x BC547 Transistor 1 x IRF540 Transistor 10 x Diffused 5mm Red 10 x Diffused 5mm Green

Or

Package 3: 10 x Diffused 5mm Blue 2 x Clear 5mm RGB 2 x Common Cathod Seven Segment 1 x SPDT Slide Switch 5 x Tact Switch 0.5mm 40 x Male to Male Jumper Wires 10 x Male to Female Jumper Wires 10 x Female to Female Jumper Wires 10 x 9V Battery Clip to 5.5mm DC Plug 1 x Buzzer

With

GSM Module: GPRS multi-slot class 12/10 GPRS mobile station class B Compliant to GSM phase 2/2+ Class 4 (2 W @ 850/900MHz) Class 1 (1 W @ 1800/1900MHz) Bluetooth: compliant with 3.0+EDR FM: 76~109MHz worldwide bands with 50KHz tuning step Receiver type 22 tracking /66 acquisition -channel GPS L1 C/A code GPRS class 12: max. 85.6 kbps (downlink/uplink), Frequency:850/900/1800/1900MHz, Input Voltage: DC Socket - 5V ~ 26V Li-ion Battery - 3.5 - 4.2V, Operating Voltage:5V, Operation Mode:1.25V 3.3V 5V, Package:1 x SIM808 GSM/GPRS/GPS Module With Antennas 1 x GPS Antenna 1 x GSM/GPRS Antenna, Sensitivity (Tracking: -165 dBm Cold starts : -147 dBm)

And

WIFI, BT Module: Clock Speed: 32 kHz crystal oscillator, Features: Integrated dual mode Bluetooth (classic and BLE) Ultra-low noise analog amplifier Hall sensor 10x capacitive touch interface SD-card interface support, Flash Memory: 16 MB KB, I/O Pins:Analog-to-Digital Converter (ADC) – Up to 16 channels of 12-bit SAR ADC's Digital-to-Analog Converter (DAC) – Two 8-bit DAC's Pulse-Width Modulation (PWM) – Up to 16 channels Touch Sensor – 10 GPIOs feature capacitive sensing UART – Two UART interfaces I2C, SPI, I2S – There are two I2C and four SPI interfaces, Microcontroller: Tensilica LX6 microcontroller, Operating Voltage: 3.3V, Processor: 240 MHz dual core, SRAM: 520 KB, Temperature Range: -40°C to +125°C operating temperature, WiFi: 802.11BGN HT40)

• **Warranty**

3 years comprehensive

• **Authorization**

Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.

• **Financial**

- a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
- b. Validity period - To be indicated by the bidders.
- c. Discounts if any - To be indicated by the bidders.
- d. Any other taxes - To be indicated by the bidders.
- e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

02. Storage box

36 grids storage box -	5 Nos.
------------------------	--------

Large plastic storage box -	5 Nos.
-----------------------------	--------

- Warranty
3 years comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

03. Development Board (Arduino Yun)

- Technical Specification

Microcontroller:	ATmega32U4
Operating Voltage:	5V
Input Voltage:	5V
Digital I/O Pins:	20
PWM Output:	7
Analog I/O Pin:	40 mA on I/O Pins; 50 mA on 3, 3 Pin
Flash Memory:	32 KB (of which 4 KB used by boot loader)
SRAM:	2.5 KB
EEPROM:	1KB
Clock Speed:	16 MHz
- Warranty
3 years comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

04. Development Board (Arduino UNO)

- Technical Specification

Microcontroller:	ATmega328P
Operating Voltage:	5V
Input Voltage (recommended):	7-12V
Input Voltage (limit):	6-20V
Digital I/O Pins:	14 (of which 6 provide PWM output)
PWM Digital I/O Pins:	6
Analog Input Pins:	6
DC Current per I/O Pin:	20 mA
DC current for 3.3V Pin:	50 mA

Flash Memory:	32 KB (ATmega328P) of which 0.5 KB used by boot loader
SRAM:	2 KB (ATmega328P)
EEPROM:	1 KB (ATmega328P)
Clock Speed:	16 MHz
LED_BUILTIN:	13
Length:	68.6 mm
Width:	58.4 mm
Weight:	25 g

- Warranty

3 years comprehensive

- Authorization

Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.

- Financial

- Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
- Validity period - To be indicated by the bidders.
- Discounts if any - To be indicated by the bidders.
- Any other taxes - To be indicated by the bidders.
- Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

05. Development Board (Beagle Bone Black - Rev C)

- Technical Specification

Processor: AM335x 1GHz ARM® Cortex-A8

Memory: 512MB DDR3 RAM, 4GB 8-bit eMMC onboard flash storage

Connectivity: USB client for power & communications, USB host, Ethernet, HDMI, 2x 46 pin headers

Software Compatibility: Debian, Android, Ubuntu, Cloud9 IDE on Node.js w/ BoneScript library, plus much more

3D graphics accelerator

NEON floating-point accelerator

2x PRU 32-bit microcontrollers

- Warranty

3 years comprehensive

- Authorization

Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.

Financial

- Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
- Validity period - To be indicated by the bidders.
- Discounts if any - To be indicated by the bidders.
- Any other taxes - To be indicated by the bidders.
- Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

06. Raspberry Pi with SD card(32 Gb)

- Technical Specification

2GB Ram

64-bit quad core processor running at 1.4GHz with built-in metal heat sink

USB 3 ports Dual-band 2.4GHz and 5GHz wireless LAN and Ethernet

PoE capability

32 GB Class 10 card (SD-MicroSD convertor)

- Warranty
3 years comprehensive
- Authorization

Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.

- Financial
 - Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - Validity period - To be indicated by the bidders.
 - Discounts if any - To be indicated by the bidders.
 - Any other taxes - To be indicated by the bidders.
 - Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

07. Quad copter

- Technical Specification

Transmitter/Receiver: 2.4GHz
 Name: 6 channels transmitters
 Model No: FS-CT6B
 Channels: 6 channels
 Mode Type: Airplane
 Stick Mode: Left hand or Right hand
 Modulation: Frequency Modulation
 Antenna length: 115cm/26mm
 Code Type: PPM/GFSK
 Power: 12 VDC
 RF Power: Less than 0.8W
 Helicopter
 Glider

- Warranty
3 years comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial

- Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
- Validity period - To be indicated by the bidders.
- Discounts if any - To be indicated by the bidders.
- Any other taxes - To be indicated by the bidders.
- Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

08. Arduino Mega

- Technical Specifications

Microcontroller: ATmega2560
 Operating Voltage: 5V
 Input Voltage (recommended): 7-12V
 Input Voltage (limit): 6-20V
 Input Voltage (recommended): 7-12V
 Digital I/O Pins: 54 (of which 15 provide PWM output)
 Analog Input Pins: 16
 DC Current per I/O Pin: 20 mA
 DC Current for 3.3V Pin: 50 mA+
 Flash Memory: 256 KB of which 8 KB used by bootloader
 SRAM: 8 KB

- Warranty
3 years
- Authorization
Suppliers should be a Manufacture Authorized Agent in Sri Lanka, and proofs should be provided.
- Financial
 - a. Delivery period- Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by the Department of Inland Revenue to be attached

09.Raspberry Pi 4 Starter Kit

- Technical Specifications
Raspberry Pi 4 Model B
1.5GHz 64-bit quad-core ARMv8 CPU 1 GB, 2 GB, or 4 GB RAM
3.5A USB-C Power Supply with Noise Filter (UL Listed) specially
Premium Black Case (High Gloss)
Set of 3 Aluminum Heat SinksFan
Micro HDMI to HDMI Cable (6-foot cable)
SanDisk 32GB Class 10 Micro SD Card
USB Card Reader Dongle
- Warranty
3 years
- Authorization
Suppliers should be a Manufacture Authorized Agent in Sri Lanka, and proofs should be provided.
- Financial
 - a. Delivery period- Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by the Department of Inland Revenue to be attached

10 Microcontroller ICs

- Technical Specification
PIC16F887- 70PCs
PIC18F4550 -50PCs
PIC16F628A -100PCs
PIC12F508 -100PCs
24C02N -50PCs
24C64N -50PCs
ATMEGA32A-PU-50PCs,
- Warranty
3 year comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

11.

- Technical Specification

- Adjustable laboratory power Supply

- Dual Channel

- Output Regulated DC Power Supply

- Variable 0-50V 0-5A Adjustable Voltage Supply

- Input 230V AC 50Hz

- PCB Bread Board

- High Quality Solderless Breadboard 1660 Tie Point PCB Bread Board

- Analog Multi meter

- Resistance test range: 1 Ohm to 10 Gega Ohm

- Insulation test voltage: 50V, 100V, 250V, 500V,1000V (DC & AC)

- AC/DC current up to 10Amperes

- Diode Tester

- Capacitor measurement

- Digital Multi meter

- Resistance test range: 1 Ohm to 10 Gega Ohm

- Insulation test voltage: 50V, 100V, 250V, 500V, 1000V (DC & AC)

- AC/DC current up to 10Amperes

- Diode Tester

- Capacitor measurement

- Breadboard Power Supply

- MB102 Breadboard Power Supply Module 3.3V/5V with USB Cable

- Soldering iron + Hot Air Gun De soldering Station

- Input Voltage: 220V~240V 50Hz AC

- Air Flow Type: Brushless Fan with Soft Air

- Max Air Flow Volume: 120L/min

- Hot Air Gun: 500 Watts

- Soldering Iron: 50 Watts

- ESD Safe

- Temperature Range 200°C ~ 480°C

- Temperature Range 100°C ~ 480°C with Auto Cool Down Safety Feature

- Soldering ions (30W)

- Input 230V AC 50Hz

- Power: 30W

- Type: Internal Heating

- De soldering Pump

- De soldering Pump

- Suction Sucker Vacuum Pump

- Material Aluminum

- Electric De soldering Pump

- Electric De soldering Pump Soldering Tool 220V 30W Eu Plug Adjustable Temperature Suction Tin Solder Pen

- Warranty

- 3 year comprehensive

- Authorization

- Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.

- Financial

- a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)

- b. Validity period - To be indicated by the bidders.

- c. Discounts if any - To be indicated by the bidders.

- d. Any other taxes - To be indicated by the bidders.

- e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

12.

- Technical Specification

Precision Screwdriver tool Set

—
Combination bits measure in metric and standard units
Demagnetized tools prevent damage to your system
Securely stored in a black vinyl zippered case
Dimensions: 13-1/8-Inch x 7-Inch x 1-7/8-Inch
55-piece computer toolkit for computer technicians and home electronics enthusiasts
Includes Torx driver bits, 2-in-1 combo sockets, and slotted and square bits
Offers several types of pliers and strippers, electric voltage tester, and much more
Durable zippered storage case holds everything in one place; all tools are demagnetized
Measures 13.13 x 7 x 1.88 inches (W x H x D); lifetime warranty

Magnifying glass

—
Magnifying glass 5 LED Light Auxiliary Clip loupe Magnifier 3 In1 Hand Soldering Solder
Iron Stand Holder Station

Glue Gun

Input 230V AC, 20W EU Plug Hot Melt Glue Gun

Digital Microscope

—
G600 600X 3.6MP 8LED Portable LCD Digital Microscope 4.3" Electronic HD Video
Microscopes Endoscope Magnifier Camera Drop ship

PCB Shear

PCB Shear (320MM Steel Paper Plate Circuit Board PCB Board Cutter)

High stability Analog, Dual Trace Oscilloscope

Frequency: 30 MHz – 40 MHz

Type: Analog

Channels: Dual

Body type: Portable

Probes: Ultrasonic/ Infrared

Triggering: peak to peak auto triggering

Touch and gesture: finger, pen or stylus

Product Warranty: 5 years comprehensive warranty

Other accessories: Power code: 1, Switchable passive probe: 2 (one per channel), and User's
Manual

Digital Oscilloscope 2 analog channels

—
Frequency : 40 MHz - 60 MHz

Input Type : Analog Channels: Dual

Body type : Portable

Probes: Ultrasonic/ Infrared

Triggering : peak to peak auto triggering

Touch and gesture: finger, pen or stylus

Product warranty : 5 years comprehensive warranty

Other accessories : Power code: 1

Switchable passive probe: 2 (one per channel) and User's Manual

Function Generator

Outputs: Sin wave, Square wave, triangle wave
Output frequency: 0.1 Hz to 10 MHz
Amplitude up to 15 V_{p-p} into 50 Ω loads
Dual Output with Same Characteristics
Product Warranty: 5 years comprehensive warranty
Other accessories:
Power code: 1
Probe: 2 (one per channel)
User's Manual: 1

- Warranty
3 year comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

13

- Technical Specification

FPGA Development Kit (SPATRAN 6)

Gates: 500 or more
Programming: JTAG Programming
Connectors: Hirose FX2 connector
6-pin P mod connectors
RJ-45 Ethernet
PS/2 keyboard

Including User's Manual, Software CD and Sample lab sheets

Easy PIC v7 Micro Controller development board

Easy PIC v7 Microcontrollers development board

8086 Microprocessor Trainer Kit



8086 Microprocessor Trainer Kit

Digital Signal Processing Trainer kit

Introduction to Signal Analysis
Fourier Transform and Windowing Techniques
Z-Transform and Filtering Concepts

Finite Impulse Response Filter Design
Infinite Impulse Response Filter Design
Design Flow with MATLAB, Simulink, and DSP Builder
Real-Time DSP
FIR Filter Implementation
Other accessories: user's manual and Software CD

8051 Microcontroller Development Board

8051 controller Development Board

AVR Microcontroller Development Board

AVR Micro Easy AVR V7

USB cable

User Manual controller Development Board

PIC KIT Programmar

PIC KIT 3 Programmar

PIC16F877 Development Kit

PIC16F877 Development Kit

- Warranty
3 year comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

14.

- Technical Specification

Raspberry Pi 4 Model B+ / 32GB memory card /power supply unit

Raspberry Pi 4 4GB Model B with 1.5GHz 64-bit quad-core ARMv8 CPU (4GB RAM)

32GB + Micro SD Card (Class 10) Pre-loaded with NOOBS

USB MicroSD Card Reader

Clear Raspberry Pi 4 Case with Integrated Fan Mount

Low Noise Bearing System Fan

Set of Heat Sinks

Micro HDMI to HDMI Cable

5V 3A Power Supply for Raspberry Pi (5V 3A output, 1.5m cable)

Arduino Starter Kit (Original)

Arduino Starter Kit (Original)

1 Projects Book (170 pages)

1 Arduino Uno

1 USB cable, Breadboard 400 points

70Solid core jumper wires

1 Easy-to-assemble wooden base

1 9v battery snap

1 Stranded jumper wires (black)

1 Stranded jumper wires (red)

6 Phototransistor
 3 Potentiometer 10kOhms
 10 Pushbuttons
 1 Temperature sensor [TMP36]
 1 Tilt sensor
 1 alphanumeric LCD (16x2 characters)
 1 LED (bright white)
 1 LED (RGB)
 8 LEDs (red)
 8 LEDs (green)
 8 LEDs (yellow)
 3 LEDs (blue)
 1 Small DC motor 6/9V
 1 Small servo motor
 1 Piezo capsule [PKM17EPP-4001-B0]
 1 H-bridge motor driver [L293D]
 1 Opt couplers [4N35]
 2 Mosfet transistors [IRF520]
 5 Capacitors 100uF
 5 Diodes [1N4007]
 3 Transparent gels (red, green, blue)
 1 Male pins strip (40x1)
 20 Resistors 220 Ohms
 5 Resistors 560 Ohms
 5 Resistors 1 k Ohms
 5 Resistors 4.7 k Ohms
 20 Resistors 10 k Ohms
 5 Resistors 1 M Ohms
 5 Resistors 10 M Ohms

Node MCU with micro USB cable

Node MCU with micro USB cable

- Warranty
3 year comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

15.

- Technical Specification

Robotic arm trainer (six axis, desktop/mini) Kit

Robotic arm trainer (six axis, desktop/mini) to teach robotics for undergraduate programs.

Robotic arm trainer facilitate to teach

Four axis, desktop/mini

Multi-axis robot concepts

Sensing

6-axis robot programming

Train robot coordinate system

Train velocity and acceleration

Digital inputs and outputs
Payload 3kg-6kg
Other accessories :
User's Manual: 1
Software CD

3D printer (Full Metal Extreme High Accuracy Large Printo)

Single Extrusion Tool Head

Filament (PLA, ABS)
Layer Thickness (0.1mm-0.4mm)
Compatibility- Windows, Linux, Mac OS
Power Requirements 110-240 V AC
Other accessories: User's Manual and Software CD
User training

Smart Humanoid reception Robot Voice robot

A programmable Humanoid robot to develop and test applications in Artificial Intelligence , Machine Vision, Voice controlled

Libraries support such as Robot Vision Test using Open CV Library

Real Time Image Acquisition and Pre-Processing

Speed Control/RC motor compatibility by PWM technology

PCB Photo typing Machine

Power Consumption: AC 110-220 V
Working Area around: 320 x 230 x 50 mm
Spindle Speed: 5,000-42,000 rpm (Software Control)
Dust Enclosure: Applied
Drilling: 0.2mm-3.17mm.

- Warranty
5 year comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

16.

- Technical Specification

ESP 32 Development Boards

ESP 32 Development Boards

Zigbee IoT Starter Kits

Digi XBee Grove Development Boards
Digi XBee 3 Zigbee SMT Modules
Micro-USB Cables
Antennas
Few Sensors
Instruction manuals
Other accessories: User's Manual: 1
Software CD

LoRa IoT Training Kit

1 x LG01-P Single Channel LoRa Gateway
1 x (LoRa Shield + Arduino UNO)
1 x (LoRa/GPS Shield + Arduino UNO)
1 x flame sensor
1 x Relay
1 x photosensitive sensor
1 x Buzzer
1 x Ultrasonic Sensor
1 x DHT11 Temperature and Humidity Sensor
10 x dupont wire (male to male)
10 x dupont wire (female to female)
10 x dupont wire (female to male)
Other accessories: User's Manual: 1
Software CD

ESP 32 Development Boards

ESP 32 Development Boards

Programmable Logic Controller Training Teaching Equipment(S300)

Include S300 PLC
12-16 digital inputs
12-16 digital outputs
4-6 analog inputs
4-6 analog outputs
Other accessories: User's Manual x 1
Software CD

Analogue Electronics Experiment Kit (KL 21001 Linear Circuit Lab)

Analog filters (active and passive)
Transistor amplifiers (common emitter, common collector)
Voltage comparator
Integrated differential operation circuit
Integrated addition operation circuit
Ratio summation operation circuits
Integrated power amplifier
Other accessories: User's Manual
Software CD

- Warranty
5 year comprehensive
- Authorization

Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.

- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

17.

- Technical Specification

Azure Kinect DK (3D Camera)

Sensors Depth camera: 1MP

Time-of-flight RGB camera: 12MP

CMOS sensor rolling shutter IMU: 3D digital accelerometer and a 3D digital gyroscope Micro phone: 7-microphone circular array Input/Output/Connectivity USB-C data connector Power through USB-C (USB-C to USB-C cable not included) or external PSUSync connectors to synchronize multiple units

Raspberry Pi Camera V2 - 8MP

Fixed focus lens on-board

Improved resolution - 8 megapixel native resolution sensor-capable of 3280 x 2464 pixel static images

Supports 1080p30, 720p60 and 640x480p90 video

Size: 25mm x 23mm x 9mm

Weight just over 3g

Connects to the Raspberry Pi board via a short ribbon cable (supplied)

IP 360 Camera

Resolution 1080p

Additional Features AI Motion Detection

Full HD resolution

360 degree view

Infrared Night Vision

Talkback feature

Up to 64GB SD card storage

Included Components Camera

AC Adapter with cable

Mounting accessories

User Manual

Li Dar Sensor

Measure distance 0.15~16m@30%

Repetition precision $\pm 3\text{cm}$ @16m@12Hz

Scan angle 360°

Angle resolution 0.36°

Scan frequency 5~15Hz, Default 10Hz

Measure speed 9000Hz

Output port TTL

Distance resolution 1cm

Light resource Laser diode 905nm

$\leq 1\text{mW}$; accord with GB7247.1-2001 Class I

Power supply DC5V $\pm 10\%$

$< 3\text{W}$; starting current $> 1\text{A}$

Jetson nano development kit

GPU: 128-core Maxwell

CPU: Quad-core ARM A57 @ 1.43 GHz

Memory: 4 GB 64-bit LPDDR4 25.6 GB/s

Storage: micro SD

Camera: 2x MIPI CSI-2 DPHY lanes

Display: HDMI and display port

LCR Meter

Handheld

20,000 counts resolution or better

0.2% basic accuracy or better

Frequency upto 80 KhZ or better

NI My Daq kits

Analog input (2 channels, 200 kS/s, 16-bit)
Analog output (2 channels, 200 kS/s, 16-bit)
Analog input and output also available through 3.5 mm audio jacks
8 digital I/O
1 counter
Digital multi meter (V, A, Ω)
Power supply (+5 V, ± 15 V)
Bus-powered (USB) operation
Compatible with NI ELVIS mx driver
Powered by NI Lab VIEW.
Other accessories: User's Manual: 1
 Software CD

- Warranty
5 year comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

18.

- Technical Specification

Robot remote center of motion mechanism Arm

Aluminum Metal S6 6DOF 6 Axis Robot Arm

CNC Machine

50*65cm Laser Engraving Machine CNC 6550 Engraver Machine (To practice CNC machine programming for beginners)

e 6WD Off-Road Robot Car With Camera For Arduino UNO (chase)

e 6WD Off-Road Robot Car With Camera For Arduino UNO (chase)

- Warranty
5 year comprehensive
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

19. Power tool

610W Electric Impact Drill x 2
250W Professional High Quality Bench Grinder x 1
Professional Welder Machine x 1
Professional Electric Blower Power Tools x 1
Electric Power Jig Saw Tools x 1
Electric Power Circular Saw Tools x 1
Electric Power Cordless Drill Tools x 2
Electric Bench mounted Drill x 1
Electric Power Angle Grinder Tools x 1
Tools and Rinch Kit x 1
Bench vise x 1

Stepper Motor (Heavy) with Bridge circuit

Motor Type: Bipolar Stepper
Step Angle: 1.8° Holding Torque– 30Nm (300kg.cm)
Rated Current / Phase: 8.0A
Resistance / Phase: 0.67ohms ±10%
Inductance / Phase: 11.0mH ±20% (1 KHz)

Stepper Motors 57HS7630 with Bridge circuit

Drive system: Unipolar
Step angle: 1.8° full step
0.9° half-step
Phase/Windings: 4/2
Voltage & Current: 12V at 400 mA
Resistance per Phase: 30 ohms
Inductance per Phase: 23 mH
Holding Torque: 2000 g-cm
Detent Torque: 220 g-cm max
Weight: 0.24 kg (0.5 lbs.)
Max continuous power: 5 W
Rotor Inertia: 22 g-cm²

Co Drone Pro

Flight Time: more than 8 mins
Battery Charge time: 40 mins
Flight Range: 160 ft
IR sensors
Gyroscope: 3-axis gyroscope and 3-axis accelerometer for altitude control
Barometer Sensor: Assists with altitude control
Hovering: Optical flow sensor for hovering
Bluetooth 4.0
6-megapixel camera

MPU6050 - Triple Axis Accelerometer & Gyro Breakout

I2C Digital-output of 6 or 9-axis Motion Fusion data in rotation matrix
Quaternion
Euler Angle or raw data format
Input Voltage: 2.3 - 3.4V

SIM900 GSM + GPRS Shield development board

Quad-Band 850 / 900/ 1800 / 1900 MHz – would work on GSM networks in all countries across the world.
GPRS multi-slot class 10/8
GPRS mobile station class B
Compliant to GSM phase 2/2+

ENC28J60 Ethernet LAN Module

Ethernet LAN Module for Arduino/AVR/LPC/STM3
ENC28J60 Ethernet chips
Can be easily mounted with the MCU
Network Interface: HR911105A
Supply Voltage: 3.3V (5V Tolerant DIO)
25MHz crystal oscillator

Stepper Motor Driver Controller Board H-bridge For Arduino

Chip uses 15-pin package
High voltage
Maximum operating voltage up to 46V; output current
Instantaneous peak current up to 3A
Continuous operating current of 2A; rated power 25W

HC-SR04 Ultrasonic Distance Measuring Transducer Sensor

Static Current: Less than 2mA
Output Signal: Electric frequency signal, high level 5V, low level 0V
Sensor Angle: Not more than 15 degrees
Detection Distance: 2cm-450cm
High Precision: Up to 0.3cm

Arduino GPS shield

PCB size: 55.88mm X 54.1mm X 1.6mm
Indicators: PWR
Power supply: Compatible with Arduino
Communication Protocol: UART
RoSH: Yes

Arduino Compatible DHT22 Digital Temperature Humidity Sensor Module

Operating Voltage: 3 to 5V
Max Operating Current: 2.5mA max
Humidity Range: 0-100% / 2-5%
Temperature Range: -40 to 80°C / $\pm 0.5^\circ\text{C}$
Sampling Rate: 0.5 Hz (reading every 2 seconds)

Pulse Sensor

Pulse Sensor Board
24-inch Color-Coded Cable with Standard Male Headers
Ear Clip for Earlobe Heart Rate Measurement
Velcro Finger Strap
Transparent Stickers to Protect Sensor

Solder less Breadboard Jumper wire strip (Male to Male)

Length: 150mm / 6"
Each wire is 28 AWG (7 strands @ 36 AWG)

- Warranty
3 years
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

20.

LED

3 Color 300PCs
5mm RED 300PCs
GREEN 300PCs
YELLOW 300PCs

Relay

12V 30PCs
5V 30PCs
Relay Module

Resistor (1/2 W different values 100 items 1 packet per each)

220Ohm
330 Ohm
470 Ohm
1K
2.2K
6.8K 10K 22K 33K
47K 100K 560K 1M
50 K preset
10K Preset
50K VR

Diode (Zener, Ref, Other) (100 items)

IN4001
IN4007
5V Zener
12 Zener IN34

Capacitor (All caps 25v) (100 items)

1uf
2.2uf
4.7uf
10uf
47uf
100uf
220uf
470uf
1000uf
2200uf
33pf
100 pf
0.1 uf

Transistors (200 Items pereach)

2SC828
D400
D313
BC508 LM3940
7812
7805

Digital Electronic items (100 Iems)

7-segment Display (Medium size)

Switches (100 items)

DC Micro switch
Push button

Analog IC (200 Items)

NE555
LM 741
NE4017

Digital ICs (100 Items)

7400 50PCs
7402 50PCs
7403 100PCs
7404 50PCs
7408 50PCs
7432 50PCs
7486 50PCs
7476 50PCs
74153 50PCs
74138 50PCs
CD4511 50PCs

- Warranty
Consumables
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial

 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.

e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

21

- Technical Specification

Soldering Iron Tip Cleaner

General

Temperature Tolerant Solder Tip Cleaning Pads

General

Vacuum Suction Pens Set for Electronics DIY

Product Type: Suction Pens

Material: Aluminum

Package Type: Plain

Package Contents: 1*Suction Pen, 3*Suction Pads (3+7+10mm)

Laddering Remover Ball - Color Assorted

General

MCN-300 Soldering Solder Paste 63/37 25-45um

General

Weak Acid Soldering Solder Paste

General

LCD 16x2 display

Operating Voltage: 4.7V to 5.3V

Current consumption: 1mA without backlight

Alphanumeric LCD display module (meaning can display alphabets and numbers)

Consists of two rows and each row can print 16 characters.

Each character is build by a 5×8 pixel box

Can work on both 8-bit and 4-bit mode

CO2 sensor (mq2)

Detection Gas: CO2

Detection Range: 0-5% vol Optional

Output signal: PWM, UART, IIC

Metal detectors

Input Voltage: 2.3 - 5V

Current: 18mA

Electronic Items

Logic Prob -10

Alligator Clips – 100

Test clips 100

2Core DC wire 50m

4 Circuit wire Rolls (RED, BLCK, BLUE, YELLOW)

Lead-Free solder x6 rolls

Lead-Free solder 500g

- Warranty
3 years
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
 - e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

22. Cabinet organizer (plastic item holder trays for electronic ICs)

- Technical Specification

Cages for each unit: 30 or more



- Warranty
No
- Authorization
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.

- Financial
 - a. Delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
- e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

23.SMT Soldering Machine

- Technical specification
 1. Input requirements: 230V, 50Hz, Single phase supply
 2. Unit should be ESD Safe
 3. Unit should have simultaneously working three-channels for soldering, desoldering and hot air pencils and a vacuum channel for pick-up
 4. Interface USB
 5. Unit should have supervisory Lock Mode feature
 6. Unit should have two in-built pumps for Air, vacuum & Pick-up
 7. Unit should have a LCD type display
 8. Unit should be capable of adjusting Air pressure, vacuum & Pick-up
 9. Temperature should be adjustable in 1°C step using push buttons:
 - a) 50oC to 550oC for hot air pencil.
 - b) 50oC to 450oC for soldering, Desoldering pencils and other tools
 10. Temperature accuracy of Soldering/Desoldering Tools should be $\pm 2\%$ of highest value over the range
 11. Temperature accuracy of Hot Air Pencils should be $\pm 30^\circ\text{C}$
 12. Temperature stability should be $\pm 2^\circ\text{C}$
 13. Maximum vacuum should be 0.7 bar
 14. Maximum Hot Air should be 15 liter/minute
 15. Vacuum Pick-up Pencil set for Pick and Place of SMD Components (ESD Safe)
- Warranty

3 years comprehensive on-site warranty including all parts and labour and covering against all types of defects and faults related to the product quality and workmanship v Maximum Response time of 3 hours v Maximum Resolution Time of 8 working hours. (In failure to do so, vendor must supply a backup Computer with similar capabilities)
- Authorization

Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided.
- Financial
 - a. delivery period - Bidders to indicate. (Shorter delivery period will be preferred.)
 - b. Validity period - To be indicated by the bidders.
 - c. Discounts if any - To be indicated by the bidders.
 - d. Any other taxes - To be indicated by the bidders.
- e. Vat details - VAT registration no/ exemption letter issued by department of in land revenue to be attached.

SPECIMEN FORM OF BID SECURITY

By this Bond we (hereinafter called "the Bidder") and We (name of bank or insurance company) whose registered office is at (hereinafter called "the Surety") are held and firmly bound onto (hereinafter called the Authority") in the sum of for the payment of which sum the Bidder and the Surety bind themselves their successors and assigns jointly and severally by those presents.

Whereas the authority has invited the Tender and other persons to compete tenders in similar terms for the supply of and to submit the same for the consideration of the Authority, and the Bidder proposes to submit to the Authority a Bid (hereafter called "the Bid") in accordance with such invitation, the Bond shall provide security to the Authority that the Bidder will honour certain obligations to be undertaken by him in the Tender in accordance with the following conditions.

Now the Conditions of this Bond are:

- (a) That it shall remain in full force and effect until the earliest of
 - (i) (Date), being () days from (submission date), the date stipulated by the Authority for the submission of tenders, or any prolongation of such date above notified to the Authority by the Bidder and the Surety in writing.
 - (ii) In the event of acceptance of the Tender by the Authority, the date upon which the Bidder provides a performance security to the Authority in accordance with the terms of the contract thereby made between them, or
- (b) Subject to this Bond being in full force and effect, the Surety shall pay the full amount specified in this Bond upon receipt of first written demand form the Authority stating that.
 - (i) The Bidder has withdrawn his Tender during the validity of this Bond, or
 - (ii) The Bidder has failed to provide a performance security to the Authority in accordance with the terms of the tender within 14 days from receipt of intimation of award of the Tender.

No alteration in the terms of the Tender, nor any forbearance of forgiveness in or in respect of neither any matter or thing concerning the Tender on the part of the Authority, nor any objection from the bidder shall in any way release the Surety from any liability under this Bond.

The benefit of this Bond shall not be assignable by the Authority and upon its ceasing to be in full force and effect the Authority shall return the same to the Bidder.

This Bond shall be governed by the laws of Sri Lanka

I executed as a deed on this () day of () 20 ()

For and on behalf of the Bidder

Signed by -----

In the capacity of -----

and by -----

In the capacity of -----

Seal (where applicable)

For and on behalf of the Surety

Signed by -----

In the capacity of -----

and by -----

In the capacity of -----

Seal (where applicable)

DELIVERY SCHEDULE

(IT IS MANDATORY TO FILL THE FOLLOWING SCHEDULE BY THE BIDDER)

TENDER NO :

ITEM :

QTY :

DURATION	QTY
EX STOCK QTY (WITHIN 01 WEEK)	
01MONTH	
02 MONTHS	
03 MONTHS	
04 MONTHS	
TOTAL	

NAME OF THE BIDDER :

SIGNATURE OF BIDDER :

DATE :

COMPANY SEAL :