

PURCHASE ORDER
ILOILO SCIENCE AND TECHNOLOGY UNIVERSITY
 Burgos St., LaPaz, Iloilo City

DOC # 70378

Supplier : AEP SYSTEMS INTEGRATION INC. P.O. No. : 2024-07-185
 Address : 21st Huervana St. Divinaracia Lapaz, Iloilo City Date : July 5, 2024
 TIN : 602-662-700-000 Mode of Procurement : Small Value Procurement

Gentlemen:
 Please furnish this Office the following articles subject to the terms and conditions contained herein:

Place of Delivery : Burgos Street, La Paz, Iloilo City Delivery Term : 45 Calendar Days upon receipt of P.O
 Date of Delivery : _____ Payment Term : CHARGE

Stock/ Property No.	Unit	Description	Quantity	Unit Cost	Amount	
1	sets	SOIL SENSOR Brand: MODBUS Model: RS485 Soil Sensor 7 in 1 Measure Items: Temperature, Humidity, Conductivity(EC), PH, Nitrogen, Phosporus, Potassium Power Supply: DC 4.5-30V Max Power consumption:0.5W @ 24V DC Protection Class: IP68, Long term immersion in water use Cable length: default is 2m (can be customized) Operating Environment: -40°C - 80°C Overall Dimensions: 45*15*123mm Output: RS485/4-20mA/0-5V/0-10V	4	4,296.00	17,184.00	
2	sets	RADIO COMMUNICATOR Brand: AI-THINKER Model: RA-01 LORA Packaging: SMD-16 Size: 17*16*(3.2±0.1)mm Communication, Interface: SPI Programmable bit rate: up to 300Kbs Spectrum range: 410-525MHz Maximum Transmission power: 18±1dBm Average Working Current: 433MHz: TX: 93mA RX: 12.15mA Standby: 1.6mA 470MHz: TX: 97mA RX: 12.15mA Standby: 1.5mA Power Supply range: 2.5-3.7V, typical value 3.3V Working Temperature: -30°C - 85°C Storage Environment: 40°C~90°C; 90°C RH	8	672.00	5,376.00	
3	pcs	MICROCONTROLLER Brand: PCBFUN Model: Nodemcu V3 Esp8266, Esp-12E Wi-Fi Communication interface voltage: 3.3V. Antenna type: Built-in PCB antenna is available. Wireless: 802.11 b/g/n standard, WiFi: 2.4GHz, support WPA / WPA2 security mode, Support STA/AP/STA + AP three operating modes, Built-in TCP/IP protocol stack to support multiple TCP Client connections (5 MAX) D0 ~ D8, SD1 ~ SD3: used as GPIO, PWM, IIC, etc., port driver capability 15mA ADO: 1 channel ADC Power input: 4.5V ~ 9V (10VMAX), USB-powered Current: continuous transmission: ≈70mA (200mA MAX), Standby: <200uA Transfer rate: 110-460800bps Support UART / GPIO data communication interface Remote firmware upgrade (OTA) Flash size: 4MByte	5	528.00	2,640.00	
4	pcs	MICROCONTROLLER BRAND: PCBFUN MODEL: Pcbfun ESP32 ESP32S CP2102 2.4GHz, WiFi+Bluetooth Development Board Input Voltage: 3.3-12V (using appropriate pins) This board is used with 2.4 GHz dual-mode Wi-Fi and Bluetooth chips by TSMC 40nm low power technology, power and RF properties best, which is safe, reliable, and scalable to a variety of applications.	5	648.00	3,240.00	
Part 1 of 2					Sub-Total	28,440.00

(Total Amount in Words): Forty One Thousand One Hundred Thirty Eight Pesos Only

In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one percent for every day of delay shall be imposed on the undelivered item/s.

Conforme: _____ Very truly yours,
AEP SYSTEMS INTEGRATION INC. RUSS ALLEN B. NAPUD, DIT
 Name of Supplier VP for Administration and Finance
 Date 16 JUL 2024 Date 18 JUL 2024

Fund Cluster : 164 ORS/BURS No. : 2024-07-0994
 Funds Available : _____ Date of the ORS/BURS: _____
 Amount : 41,138.00
JESSICA M. GENZOLA
 Accountant IV

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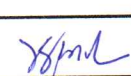
Stock/ Property No.	Unit	Description	Quantity	Unit Cost	Amount
5	set	MICROCOMPUTER BRAND: RASPBERRY PI MODEL: RASPBERRY PI 4 Broadcom BCM2711, Quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz 4GB LPDDR4-3200 SDRAM 2.4 GHz and 5.0 GHz IEEE 802.11 ac wireless, Bluetooth 5.0, BLE Gigabit Ethernet 2 USB 3.0 ports; 2 USB 2.0 ports. Raspberry Pi standard 40 pin GPIO header (fully backward compatible with previous boards) 2 x micro-HDMI ports (up to 4kp60 supported) 2-lane MIPI DSI display port 2-lane MIPI CSI camera port 4-pole stereo audio and composite video port H.265 (4kp60 decode), H264 (1080p60 decode, 1080p30 encode) OpenGL ES 3.0 graphics Micro-SD card slot for loading operating system and data storage 5V DC via USB- C connector (minimum 3A*) 5V DC via GPIO header (minimum 3A*) Power over Ethernet (PoE) enabled (requires separate PoE HAT) Operating temperature: 0 – 50 degrees C ambient Comes with plastic cover	1	8,832.00	8,832.00
6	pcs	SIGNAL CONVERTER BRAND: Makerlab MODEL: RS485 to TTL Serial Level Signal Converter Module MAX485 Features MAX485 chipset Working Voltage: 5V 5.08mm (0.2") pitch, 2-pin terminals for RS-485 easy communication and wiring 4- pin 2.54mm (0.1") pitch headers for RS485 and Power 4-pin 2.54mm (0.1") pitch headers for DI,DE,RE,RD signals PCB Board Size: 44 x 14mm	5	82.00	410.00
7	pcs	LIQUID FLOW SENSOR BRAND: SEAFLO MODEL: YF-S201 DC 5-18V 1-30L/min 2.0MPa Water Flow Sensor External Threads: 1/2" Temperature: -25~+80 Provide pressure: pressure 1.75- 2.0Mpa Operating humidity range: 35%~90%RH (no frost) Use temperature: 80 Load capacity: 10 mA (DC 5V) Working voltage range: DC 5~18 v Maximum working current: 15 mA (DC 5V) Minimum Working Voltage: DC 4.5 5V-24V Size: 6x4cm Color: Black	6	312.00	1,872.00
8	pcs	WIFI ADAPTOR MODULE BRAND: Makerlab MODEL: ESP8266 Serial WiFi Wireless ESP-01 Adapter Module Arduino UNO R3 and the compatible board can directly connect to this module. Warranty Period: 1 year ***** Nothing Follows ***** For official use: for the research project entitled, SEEDS Farming: Smart and energy-efficient design system for farming. (Former Title: Smart, Sustainable, and energy efficient fertigation system) - Project Leader: Alex Ledonio Requested by: Richard C. De Leon	4	396.00	1,584.00
				Sub-Total	12,698.00
				Grand Total	41,138.00

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AEP SYSTEMS INTEGRATION INC.
 Name of Supplier
 Date 16 JUL 2024

Very truly yours,

RUSS ALLEN B. NAPUD, DIT
 VP for Administration and Finance
 Date 16 JUL 2024

Fund Cluster : 664
 Funds Available : _____

JESSICA M. GENZOLA
 Accountant IV

ORS/BURS No. : 50ny-07-0994
 Date of the ORS/BURS: _____
 Amount : 41,138.00