Republic of the Philippines
VISAYAS STATE UNIVERSITY
Visca, Baybay City, Leyte

PURCHASE REQUEST

PPMP No. : **33-5-2630-2023-9-0-1**

Dept./Office: **CET**

Section/End-User: **Mirzi Olga P. Degracia**

Funding Source: **General Fund - MOOE**

PR No.: **GF-2023-05-00791**

Category: **Electronics**

Project Title/Code: **VSU-IP-2022-7**

Date: **05-03-2023**

Duration: **2022-07-01**
to
2024-12-31

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	**Assorted Dupont and Jumper Wires Cables**	set	1	3,000.00		3,000.00

Specification:

?Wire type: 28 AWG (7 strands @ 36 AWG)

?Material: Durable hard plastic and copper wire.

?Weight:31g(1.1oz)

?Package: Female –Female Dupont Wires – 20pcs x 300mm,   Male –Female Dupont Wires – 20pcs x 300mm, Male –Male Dupont Wires – 20pcs x 300mm, Female –Female Dupont Wires – 20pcs x 200mm, Male –Female Dupont Wires – 20pcs x 200mm, Male –Male Dupont Wires – 20pcs x 200mm, Female –Female Dupont Wires – 20pcs x 100mm, Male –Female Dupont Wires – 20pcs x 100mm, Male –Male Dupont Wires – 20pcs x 100mm, Female –Female Jumper Wires – 20pcs x 300mm, Male –Female Jumper Wires – 20pcs x 300mm, Male –Male Jumper Wires – 20pcs x 300mm,   Female –Female Jumper Wires – 20pcs x 200mm,   Male –Female Jumper Wires – 20pcs x 200mm, Male –Male Jumper Wires – 20pcs x 200mm, Female –Female Jumper Wires – 20pcs x 100mm, Male –Female Jumper Wires – 20pcs x 100mm, Male –Male Jumper Wires – 20pcs x 100mm

2	**LCD Digital Display (16x2)**	unit	3	300.00		900.00

Specification:

- LCD display module with blue blacklight.
- Wide viewing angle and high contrast.
- Built-in industry standard HD44780 equivalent LCD controller.
- LCM type: Characters
- Can display 2-lines X 16-characters.
- Voltage: 5V DC.

3	**Microcontroller, System on a Chip (SOC) Computer, 8GB RAM**	set	1	7,000.00		7,000.00

Specification:

?SoC Type (processor): Broadcom BCM2711, 64-bit ARM Cortex-A72 (ARMv8), Quad-core, 28nm

?core type:cortex- A72 64-bit (ARMv8)

?No. of Cores: quad-core

?GPU: VideoCore VI

?Multimedia: H.265 (4Kp60 decode); H.264 (1080p60 decode, 1080p30 encode); OpenGL ES, 3.0 graphics

?CPU Clock: 1.5 GHz

?Memory/ OS Storage: micro SD

?Ram LPDDR4: 8GB

?Ethernet: Gigabit Ethernet

?USB Port: 2 x micro HDMI support Dual Display

?wifi: 802.11 b/g/n/ac (2.4GHz + 5GHz & Shielded)

?Bluetooth: 5.0 + BLE (Shielded)

?anthenna

?PCB Antenna

?GPIO

?40 pins(fully backwards- compatible with Previous boards)

?Operating System: Raspbian

?5V Via USB Type C (up to 3A), 5V Via GPIO header (upto 3A), Power over Ethernet, Requires PoE HAT

?Enclosure

?Clear Case with Fan

?Included Components

?type-C USB cord and HDMI cord

4	MUX Breakout (8 Channel)	pcs	1	900.00		900.00

Specification:

?Operating Voltage: 1.65V - 5.5V

?Operating Temperature: -40 - 85° C

?I2C Address: 0x70 (default) up to 0x77

?10x Qwiic Connector:8x Channels

?2x Pass Through (Daisy Chain)

5	Soldering Iron Kit, with carrying case	set	1	1,000.00		1,000.00

Specification:

?Electronics 15 Pieces Set Adjustable Temperature Soldering Tool, 5 Soldering Tips, Desoldering Pump w/ heater, Soldering Iron Stand, Tweezers, with carrying bag

?Work Voltage: 220V

?Power: 60W

?Temp Range: 200? - 450 ?

?Tweezers: ESD-15, Length at least 4.7inches

?Soldering Iron Stand: Steel

?Tips Model: 900M series

?Desoldering Pump: Plastic and aluminum alloy

?Carrying bag: Fabric

6	Temperature and Humidity Sensor, DHT22	pcs	1	350.00		350.00

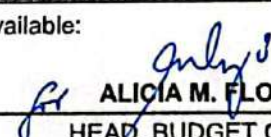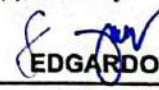**Specification:**

?Sensing element

?polymer capacitor

?Power supply

?3.3 to 6V DC

?Operating range

?0-100% RH;

?-40 to 80 celsius Temp

?Dimension

?22 x 28 x 5 mm

7	Triad Spectroscopy Sensor	set	3		5,000.00			15,000.00

Specification:

?Selectable interface: I2C or Serial (115200bps)

?18 frequencies of light sensing: 410nm to 940nm

?Special Features:

?Integrated 405nm UV, 5700k White, and 875nm IR LEDs

-?Software control over each illumination LED as well as current control

?Optional external bulb or illumination control

?Programmed with latest firmware from AMS

?28.6 nW/cm2 per count

?Packing List: Triad Spectroscopy Sensor and Compatible Cord

		TOTAL						28,150.00

Purpose: For the designing of prototype

Checked by:		Funds Available:	
DIONESIO I. ESTUPA		**ALICIA M. FLORES**	
TWG - Electronics		HEAD, BUDGET OFFICE	

	Requested by:	Noted by:	Approved by:
Signature:			
Printed Name:	**MIRZI OLGA P. DEGRACIA**	**JANNET C. BENCURE**	**EDGARDO E. TULIN**
Designation:	END USER	UNIT HEAD, PROJECT LEADER	PRESIDENT, VSU