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

GF-2021-10-01394

PURCHASE REQUEST

Dept./Office: **DABE**

Section/End-User: **Lorbert G. Mazo**

Funding Source: **General Fund - MOOE**

PR #: **GF-2021-10-01394**

Date: **10-21-2021**

Category: **Laboratory Supplies**

Project Title/Code: **VSU-IP-2021-4**

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	**Camera V2 Module Light-sensitive Chips 8MP Pixel with IMX219 1080P Video Suppo**	set	1	1,550.00		1,550.00
	Specification: Support infrared night vision function, can switch day and night mode, night vision picture clearer. With high-definition camera quality, bring pure and exquisite picture quality experience, the image is clearer. The day&night vision camera perfectly compatible for Raspberry Pi series 4B/3B+/3B/2B Model. The product includes 1 piece night vision camera,1 piece flex cable.					
2	**Camera v2 Module, Official 8MP Night Vision IMX219 Sensor**	set	1	2,400.00		2,400.00
	Specification: No IR filter High-quality imagery High data capability 8 megapixels fixed focus Supports 1080p, 720p60 & VGA9 15-pin ribbon cable Second Generation Raspberry Pi NoIR Camera Module with Fixed Focus Lens Sony Exmor IMX219 Sensor Capable of 4K30, 1080P60, 720P180, 8MP Still 3280 (H) x 2464 (V) Active Pixel Count Maximum of 1080P30 and 8MP Stills in Raspberry Pi Board 2A Power Supply Highly Recommended					
3	**Digital Smart Temperature Controller K Thermocouple Thermostat**	set	5	800.00		4,000.00

Specification:

Item Name: Intelligent Thermostat

Material: ABS

Working Voltage: 220VAC, 50Hz/60Hz

Temperature Control Accuracy: 1.0 Control Method PID Control and Self-tuning Control

Working Environment: 0~50 Degree Celsius

Relative Humidity: 30 Percent~85 Percent RH

Input Mode: K/E/J/R/S/B/N/T/PT100/CU500 Adjustable

Output Mode: Relay

Features: Convenient to Use, Fine Workmanship, Durable

Size:48 x 48 x 107mm/1.89" x 1.89" x 4.21" (Approx.)

Panel Size: 48 x 48mm/1.89" x 1.89" (Approx.)

Hole Size: 45 x 45mm/1.77" x 1.77" (Approx.)

4	**Exhaust Gas Temp Sensor 2m EGT K Type Thermocouple Probe Exhaust Temperature Sensors Threads Exhaust**	set	5	675.00		3,375.00
5	**FCI-INGAAS-1000 IR InGaAs Photodiode, Through Hole TO-46, TO-5**	set	1	8,400.00		8,400.00

Specification:

Spectrum Detected: Infrared

Package type: TO-46, TO-5

Mounting Type: Through hole

Number of Pins: 2

Diode Material: InGaAs

Minimum wavelength Detected: 900nm

Maximum wavelength Detected: 1700nm

6	**K Type Thermocouple Breakout Board Temperature Measurement Module Kit**	set	2	470.00		940.00

Specification:

Item Type: Thermocouple Breakout Board

Measurement temperature range: -200-1350°C

Input voltage: 3-5V DC

Material: PCB Board

Size: 20.3x20.3cm/7.9x7.9in

Color: Blue

7	Multifunctional LCD Digital Multimeter DMM DC AC Voltage Current Resi	set	1	940.00		940.00

Specification:

Maximum display: 4000

Operational temperature: 0-40?, <75%

RH Storage temperature: -20-60?, <80% RH

Power supply: 3V (2 * 1.5V?

AAA battery (Not included) Power consumption: 4.5mW (Typical)

DC voltage: 400.0mV/4.000V/40.00V/400.0V/600V DC

voltage resolution: 0.1mV/1mV/10mV/100mV/1V

AC voltage (RMS): 400.0mV/4.000V/40.00V/400.0V/600V

AC voltage resolution: 0.1mV/1mV/10mV/100mV/1V

DC current: 40.00mA/400.0mA/10.00A

DC current resolution: 10?A/100?A/10mA

AC current (RMS): 40.00mA/400.0mA/10.00A

AC current resolution: 10?A/100?A/10mA

Resistance: 400.0?/4.000k?/40.00k?/400.0k?/4.000M?/40.00M?

Resistance resolution: 0.1?/1?/10?/100?/1k?/10k?

Capacitance: 4.000nF/40.00nF/400.0nF/4.000?F/40.00?F/200?F

Capacitance resolution: 1pF/10pF/1nF/10nF/100nF/1000nF

Frequency: 99.5Hz/999.5Hz/9.999kHz/99.99kHz/999.9kHz/9.999MHz Frequency resolution: 0.5Hz/0.5Hz/1Hz/10Hz/100Hz/1kHz

Duty cycle: 0.1% to 99.9%

Item size: 130 * 65 * 32mm / 5.1 * 2.56 * 1.26in

Item weight: 114.5g / 4.0oz

Package weight: 224g / 7.9oz

Package size: 16 * 8 * 5cm / 6.3 * 3.15 * 1.97in

Package List: 1 * Multimeter 1 * Pair of test leads 1 * English user manual 1 * Carrying bag

8	Nano Engraving Transmission Diffraction Grating Teaching, wavelength range:2	set	1	3,750.00		3,750.00
	Specification:					

Size: 20 x 20mm

Material: Glass

Structure: Diffraction Grating

wavelength range: 200nm – 10,000nm

9	Serial Basic Breakout - CH340G	set	1	600.00		600.00
	Specification:					

It works with 5V and 3.3V systems

USB-to-Serial adapter

10	soil temperature and humidity probe / waterproof I2C temperature and humidity sensor module te	set	4	2,100.00		8,400.00
	Specification:					

Power supply voltage: 2.4~5.5VDC

Measurement accuracy: temperature ±0.1?, humidity plus or minus 1.5%RH

Working test range: -40?~125?, 0%RH~100%RH

Resolution: 0.1?, 0.1%RH

Communication protocol: standard I2C protocol

Line length: 1M

Wiring method: VCC-red, GND-black, SLC-yellow, SDA-green

11	Thermocouple 100mm Probe Stainless Steel High Temperature Sensor	set	4	260.00		1,040.00

Specification:

Operating Temperature:0 – 400?

Probe Material: Stainless Steel

Probe Diameter:5mm /0.196inch

Threads size: approx. 8mm

Probe Length:100mm / 3.937inch

Cable Length:3m

Cable External Shielding: Steel Braiding

Cable Internal Insulation: Fiberglass

Connector: Spade Type

12	Triad Spectroscopy Sensor - AS7265x (Qwiic)	set	1	7,950.00		7,950.00

Specification:

Selectable interface: I2C or Serial (115200bps)

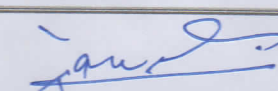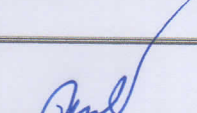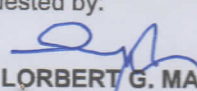18 frequencies of light sensing from 410nm to 940nm
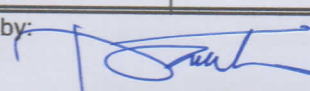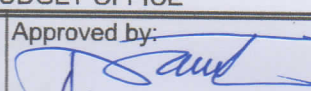
28.6 nW/cm2 per count

Accuracy of +/-12%

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

	TOTAL						43,345.00

Purpose: for research

Checked by:	Funds Available:
JACOB GLENN F. JANSALIN	**ALICIA M. FLORES**
TWG - Laboratory Supplies	HEAD, BUDGET OFFICE

	Requested by:	Noted by:	Approved by:
Signature:			
Printed Name:	**LORBERT G. MAZO**	**DANIEL LESLIE S. TAN**	**EDGARDO E. TULIN**
Designation:	END USER	UNIT HEAD, PROJECT LEADER	PRESIDENT, VSU