



Republic of the Philippines
CAVITE STATE UNIVERSITY
MAIN CAMPUS
 INDANG, CAVITE

SUPPLY, DELIVERY, INSTALLATION AND CONFIGURATION OF VARIOUS EQUIPMENT
FOR CVSU-ROSARIO CAMPUS

ABC: ₱1,560,000.00 / F164

Item No.	Quantity	Specification	Unit Price	Total
1	1 unit	3D printer Build volume: 230x190x200mm Feeder type: Dual-gearred feeder, reinforced for composite materials Build plate leveling: Advanced active leveling Layer resolution: 0.25 mm nozzle: 150 - 60 micron; 0.4 mm nozzle: 200 - 20 micron; 0.6 mm nozzle: 300 - 20 micron; 0.8 mm nozzle: 600 - 20 micron Speed and precision: Print speed: Min. 30- Max. 300mm/s Travel speed: Min. 30- Max. 350mm/s up to 16mm ³ /s Precision: 6.9/6.9/2.5 micron Nozzle options: 0.25mm / 0.4mm /0.6mm/0.8mm and more++ Print surface: Heated Borosilicate Glass build plate; Bed; 20-140C Heat-up Time: <2mins Auto detection of materials thru NFC technology material Input Sound Operation level: 50db Supported Filament: PLA, PVA, ABS, CPE, CPE+, Nylon, PC, PP and more... Composite materials compatible: Print parts with high strength and unique properties Display: 4.7-inch Software: Compatible with any popular slicing software Printer management software Training and knowledge transfer	250,000.0 0	250,000.00
2	2 unit	3D scanner accuracy ≤ 0.1 mm; min scan volume: 30x30x30 mm; max scan volume: 700x700x700 mm; camera resolution, 1.3 MP; file format, OBJ, STL, ASC, PLY	180,000.0 0	180,000.00

	<p>Mode of Alignment: Feature & Manual for Fixed scan; Turn table & Manual for Auto scan Single Shot Accuracy: ≤ 0.1 mm Minimum Scan Volume: 30 x 30 x 30 mm</p> <p>Maximum Scan Volume: 700x700x700 mm on Fixed Scan 200x200x200 mm on Auto Scan Range of Single Capture: 200x150 Scan Speed: <8 s Point Distance: 0.17 mm ~ 0.2 mm Texture: Yes File Format: OBJ, STL, ASC, PLY Camera Resolution: 1.3 Mega Pixels Stand-off Distance: 290 - 480 mm Light Source: White Light Weight (packed) & Dimension: 4.9 kg, 570x210x210 mm Power Supply, Voltage 40w, DC: 12 v, 3.33 A Standard Calibration Board Standard Turn table</p>		
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Certified Correct:


EMELINE C. GUEVARRA

TWG Chair, Computer and Office Equipment


DINDO C. MARGES

TWG Member, Computer and Office Equipment


ANZLEY R. CRUSIS
TWG Member, Computer and Office

Item No.	Quantity	Specification	Unit Price	Total
3	1 unit	<p>4th rotary axis CNC router lathe machine Table Size: 4x8 feet (48 x 96 inches, 1300 x 2500mm) Working Area: 1300x2500x200mm Traveling Positioning Accuracy: +0.03/300mm Repositioning Accuracy: +0.03mm Table Surface T-slot Table, with Vacuum Working Table Frame Welded Structure XIY Structure Helical rack, HIWIN Rail Linear Bearings Z Structure HIWMN Rail Linear Bearings and Ball Screw Max Power Consumption: 3.2KW (Without Spindle) Max. Rapid Travel Rate: 33000mm/min Max. Working Speed: 25000mm/min Spindle Power: 3KW water cooling spindle with HSD Spindle. Spindle Speed: 0-24000RPM Drive Motors Lead shine Working Voltage: AC380V/50/60Hz, 3PH, 220V-240V</p>	450,000.00	450,000.00
4	1 unit	<p>Programmable Logic Controller (PLC) Number of Inputs: 8 (Digital, 2 switch as Analogue) Output Type: Digital, Relay Supply Voltage: 85 → 264 V Input Type: Analogue, Digital Number of Digital Inputs: 8 Number of Outputs: 6 (Digital Output, Relay Output) Number of Digital Outputs: 6 Maximum Operating Temperature: +60°C Dimensions: 100 x 90 x 75 mm Depth: 75mm Length: 100mm Width: 90mm Mounting Type: DIN Rail Wall Mount Programming Language Used: FBD, LAD, SCL Number of Communication Ports: 1 Output Current: 2A</p>	25,000.00	25,000.00
5	1 unit	<p>Human Machine Interface (HMI) Type: Touchscreen HMI Display Size: 7-inch to 10-inch diagonal Resolution: 800x480 pixels or higher Processor: Multi-core processor for fast response Memory: 512 MB RAM, 4 GB Flash Memory</p>	50,000.00	50,000.00

		<p>Features:</p> <p>Touchscreen: Capacitive or resistive touchscreen for intuitive interaction</p> <p>Communication Ports: Ethernet, USB, RS232, RS485</p> <p>Supported Protocols for popular digital communication system for all areas of application in manufacturing, robotics and automation.</p> <p>Programming Software: User-friendly software for HMI configuration and programming</p> <p>Built-in data logging capability</p> <p>Alarm Management: Support for alarm monitoring and management</p> <p>Remote Access: Ability to access HMI remotely for monitoring and troubleshooting</p> <p>Enclosure: IP65-rated enclosure for protection against dust and water</p> <p>Mounting: Panel mount or DIN rail mount options</p> <p>Operating Temperature: -10°C to 60°C</p> <p>Power Supply: 24V DC</p> <p>Included Accessories:</p> <p>Mounting Hardware-Mounting brackets</p>		
6	1 unit	<p>Mini desktop laser cutting engraver machine</p> <p>Cutting speed: 0-600 mm/s</p> <p>Mini Desktop Laser Cutting and Engraving Machine</p> <p>Laser Power: 40W - 60W CO₂ Laser</p> <p>Work Area: 300mm x 500mm</p> <p>Resolution: Up to 1000 dpi</p> <p>Cooling: Water cooling system</p> <p>Operating Temperature: 5°C - 45°C</p> <p>Features:</p> <p>Software Compatibility with popular Computer Aided Design and Slicing Software.</p> <p>Supported File Formats: AI, DXF, PLT, BMP, JPG, PNG, TIF</p> <p>Control System: DSP</p> <p>Display: LCD</p> <p>Connectivity: USB, Ethernet, Wifi</p> <p>Exhaust System: Built-in exhaust fan and air assist</p> <p>Safety: Protective cover, emergency stop button</p> <p>Included Accessories:</p> <p>Laser Head: Adjustable focus</p> <p>Water Pump: For cooling</p> <p>Exhaust Fan: For ventilation</p> <p>Air Pump: For debris removal</p> <p>Work Table: Honeycomb</p> <p>-Rotary attachment for cylindrical objects</p> <p>Engraving Speed: Up to 500mm/s</p> <p>Cutting Speed: Up to 80mm/s</p> <p>Minimum Letter Size: 1.0mm x 1.0mm</p>	160,000.00	160,000.00

		<p>Repeatability: ± 0.01mm Power Supply: AC 110V/220V, 50-60Hz Dimensions: 800mm x 600mm x 400mm (L x W x H) Weight: Around 45-50 kg</p>		
7	1 unit	<p>Analytical balance Readability: 0.1 mg (0.0001 g) Capacity: 200 g Repeatability: ± 0.1 mg Linearity: ± 0.2 mg Pan Size: 90 mm in diameter Stabilization Time: 2-5 seconds Calibration: Internal automatic calibration Display: Digital LCD with backlight Features: Draft Shield: Enclosed glass draft shield to protect the weighing chamber from air currents and contaminants Tare Function: Allows for the subtraction of the container weight to measure the net weight of the sample Built-in Applications: Standard applications for density determination, formulation, and piece counting Communication Ports: USB and RS232 for data transfer to computers and other devices Leveling Feet and Bubble Level: Ensures the balance is level for accurate measurements Overload Protection: Prevents damage from excessive weight Operating Temperature: 10°C to 30°C Power Supply: AC adapter (110V/220V)</p>	60,000.00	60,000.00
8	1 unit	<p>Air compressor 5HP, single-phase induction motor, tank capacity 155L, pressure 115psi maximum pressure, 3 cylinders, direct on-line start mechanism, air-cooled cooling system, oil lubricated pump type, 220-240V 50/60hz Tank Material: Steel Pump Material: Cast iron or aluminum Safety Valve: Integrated safety valve for overpressure protection Pressure Gauge: Dual pressure gauges (one for tank pressure, one for output pressure) Drain Valve: Manual drain valve at the bottom of the tank for moisture release Portability: Wheels and handle for easy movement Noise Level: Approximately 70-80 dB with Thermal Overload Protection, Automatic Shut-off, Replaceable air filter,</p>	25,000.00	25,000.00

		<p>Built-in pressure regulator Included Accessories: Air Hose: 1 air hose (length varies) Couplers: Standard quick-connect couplers Oil: Initial fill of compressor oil</p>		
9	1 unit	<p>Digital handheld oscilloscope 2 channels Bandwidth: 100 MHz Sample Rate: 1 GSa/s (giga-samples per second) Display: 7-inch TFT LCD Memory Depth: 2 Mpts (mega-points) per channel Trigger Types: Edge, Pulse Width, Video, Slope, Alternate Input Impedance: 1 MΩ Vertical Sensitivity: 2 mV/div to 10 V/div Time Base Range: 5 ns/div to 50 s/div Waveform Math: Addition, Subtraction, Multiplication, Division Automatic Measurements: Voltage, Time, Frequency, Phase, etc. Connectivity: USB Ports: USB host and device for data transfer and PC connectivity LAN Port: Ethernet for network connectivity Battery Life: Up to 4 hours of continuous use Power Supply: Rechargeable lithium-ion battery and AC adapter Physical Characteristics: Weight: Approximately 1.5 kg Dimensions: 260 mm x 160 mm x 60 mm (L x W x H) Operating Temperature: 0°C to 50°C Included Accessories: Probes: 2 high-quality passive probes (10:1) USB Cable: For PC connectivity and data transfer Power Adapter: For charging and AC operation Protective case for portability</p>	60,000.00	60,000.00

Certified Correct:


MICHAEL V. COSTA
TWG Chair, Electronics and Communication
Engineering (ECE) Equipment


EDWIN R. ARBOLEDA
TWG Member, Electronics and Communication
Engineering (ECE) Equipment

Item No.	Quantity	Specification	Unit Price	Total
9	1 unit	<p>Industrial Welding machine (TIG) Type: TIG (GTAW) Welder Input Voltage: 220-240V, 50/60Hz (single-phase) Amperage Range: 5-300 A Duty Cycle: 60% at 250A Welding Processes: TIG (AC/DC), Stick (SMAW) Pulse Function: Adjustable pulse frequency, width, and peak current AC/DC Capability: For welding various metals including aluminum (AC) and stainless steel (DC) HF Start: High-frequency start for non-contact arc initiation Foot Pedal Control, Digital Display, Pre/Post Flow Control: Adjustable gas flow before and after welding Cooling System -Integrated fan cooling Weight: Approximately 25-30 kg Dimensions: 500 mm x 300 mm x 400 mm (L x W x H) Portable Design: Handles or wheels for easy transport Included Accessories: TIG Torch: High-quality TIG torch with consumables Amperage control, Foot Pedal Heavy-duty ground clamp, Electrode Holder Gas Hose, Argon gas regulator with flow meter</p>	150,000.00	150,000.00
10	1 unit	<p>Industrial Welding machine (MIG) MIG (GMAW) Flux-Cored (FCAW) Welder 3 Phase AC220V 60Hz, 30-500 A, Duty Cycle: 400 A/36V/60% at 40°C</p> <ul style="list-style-type: none"> • Wire Feed Speed Range: 50-700 ipm (1.3-17.7 m/min) • Max. Spool Size: 12 inches (30 cm) • Weight: Approximately 200 lbs (90 kg) • Display: Digital Meter Display for Voltage and Amperage • Cooling: Fan-On-Demand for reduced power consumption and noise with included accessories: • MIG Gun: 15 ft. (4.5 m) MIG Gun • Work Cable and Clamp: 10 ft. (3 m) • Gas Regulator and Hose: Dual-gauge regulator with hose • Drive Rolls and Guide: For .025-.045 in (0.6-1.2 mm) wire sizes • Contact Tips: Assorted tips for various wire 	150,000.00	150,000.00

		<p>sizes</p> <ul style="list-style-type: none"> • Spool Adapter: For 8 in (20 cm) or 12 in (30 cm) spools <p>Additional Features:</p> <ul style="list-style-type: none"> • Adjustable Burnback Control: To optimize starting and stopping points • Tool-less Design: For quick and easy wire drive service • Dual Gear-driven System: For consistent wire feeding • Advanced Interface: For easy setup and operation with intuitive controls • Built-in Thermal Overload Protection: To prevent overheating <p>Spool Gun Ready: For aluminum welding applications</p>		
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Certified Correct:



RONALD P. PEÑA

TWG Chair, Air-conditioning, Transportation
 Transportation
 Equipment and Other Machineries



ARTURO C. ERAÑA

TWG Chair, Air-conditioning,

Equipment and Other Machineries



EMERSON S. LASCANO

TWG Chair, Air-conditioning, Transportation
 Equipment and Other Machineries