

Republic of the Philippines
PHILIPPINE SCIENCE HIGH SCHOOL-BICOL REGION CAMPUS
Tagongtong, Goa, Camarines Sur

BID BULLETIN NO.1

Negotiated Procurement for Technical and Scientific Equipment (Lots 2,3, and 4)

July 23, 2020

This Supplemental /Bid Bulletin No. 1 is issued to supplement items in the Bidding Documents of the above-stated project in terms of the Technical specifications of the items described in all lots:

TECHNICAL SPECIFICATIONS FOR TECHNICAL AND SCIENTIFIC EQUIPMENT LOTS 2,3,and 4

2	Robotics and Engineering Equipment	11	Educational Robotics Kit	
				Main controller brick – Bluetooth and WIFI enabled with data logging; with at least 4 input and output ports
				Rechargeable battery with charger
				Interactive Servo motors (at least two with built-in rotation motors)
				Sensors (ultrasonic, touch, gyro, color)
				Building bricks and other elements for creating a vast variety of models with building instructions and software
		12	Microcontroller Kits, peripherals, sensors	
				Arduino official starter kit
				Powerboost 500 shield - rechargeable 5v Power Shield ADAFRUIT
				Battery lithium ion 3.7v 2000mah
				Accelerometer magnetometer gyroscope temp 9-dof breakout board lsm9ds0
				Battery 9v dc jack
				9v Battery
				Relay module 10a 2 channel
				Xbee shield
				Official raspberry pi power supply
				Gprs gsm sim800c shield for arduino
				Gps ultimate breakout 66 channel 10 hz updates version 3 adafruit
				Rs pro multimeter kit
2	FABLAB/AdTech Tools and Equipment	13	Jigsaw	Capacity: Wood 65mm (2-5/8") Capacity: Mild Steel Plate 6mm (1/4") Capacity: Min. Cutting Radius 25mm (1") Base Tilt Angle 45° Right/Left Power Input 400W Length of Stroke 18mm (45/64") No-Load Speed(stroke) 0-3,000/min. Overall Length 197mm (7-3/4") Weight 1.5kg (4.2 lbs.)
		14	Planer	Continuous rating Input: 750W Planing width: 82mm (3-1/4") Planing depth: 3mm (1/8") No load speed (rpm): 18,000

				Dimensions (L x W x H): 390x175x140mm Net Weight: 4.9kg (10.8lbs) Power supply cord: 2.0m (6.6ft)
		15	Table Saw	Continuous rating Input: 1,500W Max cutting capacity: at 0 degrees : 91mm (3-9/16") at 45 degrees : 63mm (2-1/2") Blade diameter: 255mm (10") No load speed (rpm): 4,300 Dimensions (L x W x H): 726x984x333mm Net Weight: 34.1kg (75.2lbs)
		16	Vacuum Cleaner	Rated power input1,250 W Weight10 kg Max Vacuum Pressure (Turbine)200 mbar Max volume rate63 l/sec Dust ClassL Container volume gross25 liters 480 x 380 x Tool dimensions (LxWxH)453mm Container volume net21 L
		17	Portable Belt Sander	Rated Power Input(W)1200 Belt Speed(m/min)500 Belt Size(mm)100 x 610 Net Weight(kg)5.8
		18	Stationary Belt Sander	Power: 375 Watts Belt Size: 915 x 102mm Disc Size: 150mm (6") Voltage: 220V / 60hz
		19	Assorted Tools	Claw Hammer: Wooden Handle Ball Pein hammer: Wooden Handle File set for rotary tool: 10pcs Set Cross Cut Saw: Handle offers a square/mitre feature with 45° and 90° angles Hack Saw: Large, comfortable tension knob for quick & easy blade change Steel Ruler 30 cm: Corner Style: rounded Steel Ruler 1 meter: Material Type: Steel Drill bits set: for wood and metal Jigsaw blade set: for wood and metal Grinder disc set: for wood and metal Mallet: tough rubber head molded to a wood handle
		20	Miter Saw	Thumb actuated miter stops for quick and easy adjustment Soft Grip Large table Equipped with chip deflector

				Pivoting Sub-Fence for supporting large stock Capacity: Blade Dia. 255mm (10")
		21	Acrylic sheets	Clear/Colored 1.5mm - 4x6 Sheet 2.0mm - 4x8 Sheet 3.0mm - 4x8 Sheet 4.5mm - 4x8 Sheet 6.0mm - 4x8 Sheet
		22	Band Saw	Motor Power: 750w Table size: 352x352mm Throat: 352mm Cutting depth: 152mm Speed: 960m/min/800/min Blade size:2375x10x0.6mm
		23	Bench Grinder	Grinding wheel diameter 150 mm No-load speed 3000 rpm Grinding wheel widths 20 mm Grinding wheel bore 20 mm Grit 24 , 60 Rated power input 350 W Rated speed 3,000 rpm
		24	Angle Grinder	Variable speed Continuous rating Input 1400 Watts Wheel diameter 100mm (4") No load speed (rpm) 2,800 - 11,000 rpm
		25	Drill Press	Compact Drill Press. 5 mode speed. Turn table (right or left : 45 degrees) Continuous rating input: 250 W (1/3HP) Drilling capacity: Steel : 13 mm (1/2") No load speed 3,200 (60Hz) rpm
		26	Portable Welding Machine	400A DC inverter Built with Digital Amp Meter for Precision Welding Complete Accessories included for Out of the Box Ready to Use Overheating protection
		27	Table Circular Saw	Input Voltage: 1 - 220V Continuous power input: 1,500W Cutting capacity on 90° : 91 mm (3-9/16") Cutting capacity on 45° : 60 mm (2-1/2") Bevel cutting capacity: 0° to 45° Blade diameter: 255 mm (10") Hole diameter: 25.4 mm (1")
		28	Safety Equipment (PPE)	Face Shield VISOR TYPE CLEAR ACRYLIC Shield Safety Shoes Sole: Rubber Insole: Premoulded

				Gloves Size Range: 36-46 Respirator COTTON GLOVES WITH LATEX Advanced silicone material Provides at least 95% filtration efficiency Welding Apron Leather with Sleeves Welding Goggles Wear with head strap or as a spectacle. With Rubber Nose Cushion for comfort Fire Extinguisher 10lbs capacity Dry chemical A.B.C. powder type Non - toxic Non - conducting and Non - corrosive chemicals Portable Type ISO Certified
		29	Jointer	1500 w (2Hp) 230v 60Hz Blade width 8" (203mm) ½" (12.7mm max) Cutting depth ½" (12.7mm max) Rabbeting cap max) Speed 4400 rpm 1315 x 395 Table (LxW) mm Height from floor 805mm Fence 875 x 98mm Tilt in and out 45°
		30	Workbench	Adjustable height - dual height Durable steel frame with anti-slip rubber feet Mobile - easy storage and transport and folds flat Dual clamping cranks increase clamping force and versatility Heavyweight steel construction allows support of 250kg Vice Jaw opening: 0 to 136 mm Vice jaw length: 740 mm
		31	Thickness Planer	Continuous rating Input: 1,650W Cutting width: 304mm (12") Cutting depth: Cutting width 0-150 mm : 3mm (1/8") Cutting width 150-240 mm : 1.5mm (1/16") Feed rate/min.: 8.5m (27.9ft) Table size (W x L): 304 x 771mm (12" x 30-3/8") No load speed (rpm): 8,500
		32	Sewing Machines	600 stitches including letters for any fabric Stitch sequencing with memory Consistent buttonholes with 13 one-step buttonhole styles

				<p>Convenient stitch selector with stitch style/width/length preview</p> <p>Mirror Imaging</p> <p>Built-In Needle Threader (+)</p> <p>Top Drop In Bobbin (+)</p> <p>Built-In Thread Cutter (+)</p> <p>Thread Cutter Shut Off (+)</p> <p>Tie-Off Button (+)</p> <p>Drop Feed (+)</p> <p>Direct Selection Stitches (+)</p> <p>Adjustable Stitch Length (+)</p> <p>Adjustable Stitch Width (7mm)</p> <p>Self-Adjusting Tension System (+)</p> <p>Reverse (Touch Button)</p> <p>Heavy Duty Metal Frame (+)</p> <p>High Speed Stitching (850/min)</p> <p>Speed Control (Mechanical)</p> <p>Needle Up/Down (+)</p> <p>Programmable Needle Up/Down (+)</p> <p>LCD Screen (+)</p> <p>Free Arm (+)</p> <p>Extension Table Included (+)</p> <p>Snap-On Presser Feet (+)</p> <p>Extra High Pressor Foot Lifter (+)</p> <p>Variable Needle Positions (25)</p> <p>Twin-Needle Function (+)</p> <p>Machine Size (17.2 x 8.2 x 12)</p>
		33	Router Table	<p>24" x 32" router table top includes a router insert plate with three molded Level-Loc reducing rings</p> <p>36" T-square style router table fence features a micro-adjust wheel for precise setups</p> <p>Outfeed anchor has been redesigned for more usable table space and easier removal</p> <p>Multi-purpose steel stand is adjustable from 31" to 39" in height</p> <p>Includes Router Table Top with insert plate, Router Table Fence and Multi-Purpose Steel Stand. #148166</p> <p>KREG 4pc Casters Set not included.</p>
		34	Portable/ Battery Powered drill	<p>Torque, max. (hard screwdriving applications) 39 Nm</p> <p>No-load speed (1st gear/2nd gear) 0 - 450 / 1400 rpm</p> <p>Max. impact rate 19,500 bpm</p> <p>Chuck clamping range 10 mm</p> <p>Battery voltage 18 V</p> <p>Weight incl. battery 1.4 kg</p> <p>Torque settings 20+1</p> <p>Drilling diameter</p> <p>Max. drilling diameter in wood 29 mm</p> <p>Max. drilling diameter in steel 10 mm</p>

				<p>Max. drilling diameter in masonry 10 mm</p> <p>Screw diameter</p> <p>Max. screw diameter 8 mm</p> <p>Integrated LED for lighting up work area</p> <p>Forward / Reverse rotation</p>
		35	Portable/Battery Powered Drill Driver	<p>Capacity: Machine screw : M4 - M8 (5/32" - 5/16")</p> <p>Standard bolt : M5 - M14 (3/16" - 9/16")</p> <p>High tensile bolt : M5 - M12 (3/16" - 1/2")</p> <p>Coarse thread (in length) : 22 - 125mm (7/8" - 4-7/8")</p> <p>Driving shank (Hex): 6.35mm (1/4")</p> <p>Impacts per minute (ipm): 0-3,200</p> <p>No load speed (rpm): 0-2,300</p> <p>Max. fastening torque: 150N.m (1,330in.lbs)</p> <p>Dimensions (L x W x H): 145x79x235mm (5-3/4"x3-1/8"x9-1/4")</p> <p>Net Weight: 1.3kg (2.9lbs)</p>
		36	Digital Oscilloscope	<p>Number of Channels 2</p> <p>Bandwidth 200MHz</p> <p>Oscilloscope Type Digital Storage</p> <p>Power Source Mains</p> <p>Display Type TFT LCD</p> <p>Minimum Vertical Sensitivity 1mV/div</p> <p>Maximum Vertical Sensitivity 10V/div</p> <p>Minimum Time Base 1ns/div</p> <p>Screen Size 8in</p> <p>Sample Rate Random 2 GSa/s, 100 GSa/s</p> <p>Rise Time 1.75ns</p> <p>Safety Category</p> <p>Safety Category Voltage 300V</p> <p>Vertical Resolution 8 bit</p> <p>Model Number p IDS2202A</p> <p>Plug Type Europe, UK</p> <p>Safety Category Level CAT I, CAT II</p>
		37	Digital Signal Generator	<p>Maximum Frequency Range 6GHz</p> <p>Sinewave</p> <p>Minimum Frequency Range 950kHz</p> <p>Sinewave</p> <p>Minimum Frequency Range 950 kHz</p> <p>Square Pulse and Arbitrary Waveform</p> <p>Digital Frequency Yes</p> <p>Digital Amplitude and Offset Yes</p> <p>Internal and External Yes</p> <p>Amplitude Modulation</p> <p>FM Modulation Yes</p> <p>Time Base Accuracy <±0.5ppm</p> <p>Input Impedance 50 Ω</p>

				Weight Frequency Range Square Pulse and Arbitrary Waveform Minimum Operating Temperature Attenuation Interface Type Dimensions Maximum Operating Temperature Width Length Model Number p Output Impedance	5.4kg 950 kHz → 6 GHz +5°C -130dB Ethernet, GPIB, RS232, USB 347 x 216 x 114mm +40°C 216mm 347mm TSG4106A 50Ω
		38	Heat Gun	Rated power input Weight without cable Working temperature Airflow Infinitely variable temperature control	2,000 W 0.9 kg 50 - 630 °C 150 - 500 l/min
		39	Soldering Stations	Tasks Supported Wattage Input Voltage Soldering Tip Temperature Number of Outputs Display Type 1 x hot air gun 1 x soldering iron 1 x stand for soldering iron 3 x nozzles	Soldering 700W 220 → 240V +480°C 2 LED
		40	Soldering Helping Hand	Main power supply 100 - 240 V/AC, 5 V/DC, 600 mA 16 LEDs lighting 360° rotating neck and bendable arms 3.5 inch 2X Illuminated Helping Hand Magnifying Glass Station with 4X Auxiliary Lens 2 fully adjustable helping hands , with clamp and alligator clips iron holder, and tray	
		41	Electronics Components	Breadboards #24 Solid Wire Soldering Lead Transistor, resistors, trimpots ldr, etc	Branded Branded Branded Branded Branded

				Small Side Cutters Branded Small Half-round Nose Pliers Branded Wire Strippers Branded Soldering Iron Branded Paper Cutters Branded Desoldering Pumps Branded Small Flat Screw Drivers Branded Small Philip Screw Drivers Branded Multimeters Branded
3	Musical Instruments	43	Amplifier	
				Stereo Mode (both channels driven) 8Ω / FTC 20 Hz - 20 kHz / 0.1% THD 1050 W 8Ω / EIA 1 kHz / 0.1% THD 1100 W 4Ω / FTC 20 Hz - 20 kHz / 0.1% THD 1600 W 4Ω / EIA 1 kHz / 0.1% THD 1800 W 2Ω / FTC 20 Hz - 20 kHz / 1% THD 2000 W 2Ω / EIA 1 kHz / 1% THD 2500 W
				Bridge Mono Mode 8Ω / FTC 20 Hz - 20 kHz / 0.1% THD 3200 W 8Ω / EIA 1 kHz / 0.1% THD 3600 W 4Ω / EIA 1 kHz / 1% THD 5000 W Signal to Noise (20 Hz - 20 kHz) 8Ω > -100 dB Distortion (SMPTE-IM) < 0.02% Input Sensitivity at 8Ω 1.42V (+5.3 dBu) Voltage Gain 64x (36 dB) Output Circuitry Class H, 3-tier
				Power Requirements Typical, 1/8 power pink noise at 4Ω* 13.9 A Severe, 1/3 power pink noise at 4Ω* 26.9 A Supplied Plug Type, 100/120V NEMA 5-20 Supplied Plug Type, 230V CEE7/7
				Weight Net 75 lbs (33.1 kg) Shipping 87 lbs (37.2 kg)
				Distortion (typical) 20 Hz - 20 kHz: 10 dB below rated power < 0.02% THD / 4Ω and 8Ω 1.0 kHz and below: full rated power < 0.02% THD / 4Ω and 8Ω
				Frequency Response 20 Hz - 20 kHz: +0/-1 dB -3 dB points: 5 Hz and 50 kHz (LF filter bypassed / 8Ω

				Damping Factor (1 kHz and below)	> 250 at 8Ω
				Input Impedance	10k ohms unbalanced / 20k ohms balanced
				Input Clipping	6.4 Vrms (+18 dBu)
				Cooling	Continuously variable speed back-to-front air flow
				Connectors (each channel)	Input: Active balanced / 3-pin Euro style detachable terminal block a XLR (pin 2+)
				Controls	Front: AC switch / Ch. 1 & 2 gain knob Rear: 10-position DIP switch
				Indicators	Power-on: Green LED / Signal: Yellow (1 per channel) / Clip: Red LED (1 per channel) Protect: Red LED Power-on: Green LED / Signal: Yellow (1 per channel) / Clip: Red LED (1 per channel) Protect: Red LED
				Amplifier Protection	Full short circuit, open circuit, thermal ultrasonic, RF protection. Stable into reactive or mismatched loads Full short circuit, open circuit, thermal ultrasonic, RF protection. Stable into reactive or mismatched loads
				Load Protection	Turn-on/off muting / AC coupling (850 1450) / Triac crowbar (1850HD, 2450, 4050HD, 5050) on each channel Turn-on/off muting / AC coupling (850 1450) / Triac crowbar (1850HD, 2450, 4050HD, 5050) on each channel
				Dimensions	5.25" (13.3 cm) tall / 3 rack spaces 5.25" (13.3 cm) tall / 3 rack spaces
				Power Requirements	100, 120, 230 VAC, 50 - 60 Hz (factory configured) 100, 120, 230 VAC, 50 - 60 Hz (factory configured)
		44	Bass Guitar		
				General	Construction: Bolt-on Scale Length: 25-1/2" (648.0mm)
				Body:	Body Materials: Alder Body Finish: Polyester
				Neck:	Neck Materials: Maple Neck Finish: Satin Finish Fingerboard Materials: Rosewood or Laurel Fingerboard Radius: 13-3/4" (350mm)

				Fret wire: Medium Number of frets: 24 Nut materials: Locking Nut Neck Width @ 0 Fret / 12th Fret:43.0 / 52.5 mm Thickness @1st Fret / 12th Fret:19.0 / 21.7 mm
				Electronics: Neck Pickup: Humbucker/Ceramic Middle Pickup: - Bridge Pickup: Humbucker/Ceramic Controls: Master Volume, Master Tone Pickup Switch: 3-Position Lever Switch
				Hardware: Bridge :Locking Tremolo Tremolo Arm: Φ6(Slot-in) String spacing: 10.8mm Tailpiece: - Tuning Machines: Die-Cast Pickguard: -
				Others: String gauge: D'Addario EXL120 / 0.009-0.042 Case: Gig Bag
		45	Digital Sound Mixer	
				Microphone input: Electronically balanced Frequency Response to direct Output: 20Hz~100KHz at 0dBu ±1.5dB Frequency Response to Main Output(48K): 20Hz~20KHz at 0dBu ±1.5dB Frequency Response to Main Output(96K): 20Hz~20KHz at 0dBu ±1.5dB
				Distortion(THD&N) to direct Output: <0.0005% at 0dBu 1KHz Distortion(THD&N) to Main Output(48K): <0.01% at 0dBu 1KHz Distortion(THD&N) to Main Output(96K): <0.01% at 0dBu 1KHz
				SNR(Signal to Noise Ratio): 107dB Maximum Input Level: +22dBu Phantom Power(+/-3V): +48VDC Line input: Unbalanced
				Frequency Response to direct Output: 20Hz~100KHz at 0dBu ±1.5dB Frequency Response to Main Output(48K): 20Hz~20KHz at 0dBu ±1.5dB Frequency Response to Main Output(96K): 20Hz~20KHz at 0dBu ±1.5dB Distortion(THD&N) to direct Output: <0.0005% at 0dBu 1KHz Distortion(THD&N) to Main Output(48K): <0.01% at 0dBu 1KHz Distortion(THD&N) to Main Output(96K): <0.01% at 0dBu 1KHz Gain: -15dBu~+35dBu Maximum Input Level(Gain at 0dBu): +20dBu AUX1~2 input: Balanced(2 stereo pair)

				<p>Frequency Response to Main Output(48K): 20Hz~20KHz at +4dBu ±1.5dB</p> <p>Frequency Response to Main Output(96K): 20Hz~20KHz at +4dBu ±1.5dB</p> <p>Distortion(THD&N) to Main Output(48K): <0.01% at 0dBu 1KHz</p> <p>Distortion(THD&N) to Main Output(96K): <0.01% at 0dBu 1KHz</p> <p>Gain: -8 to +10dBu</p> <p>Maximum Input Level: +22dBu</p>
				<p>Tape L/R input:</p> <p>Frequency Response to Main Output(48K): 20Hz~20KHz at +4dBu ±1.5dB</p> <p>Frequency Response to Main Output(96K): 20Hz~20KHz at +4dBu ±1.5dB</p> <p>Distortion(THD&N) to Main Output(48K): <0.01% at 0dBu 1KHz</p> <p>Distortion(THD&N) to Main Output(96K): <0.01% at 0dBu 1KHz</p> <p>Gain: -8 to +10dBu</p> <p>Maximum Input Level: +22dBu</p>
				<p>Talkback MIC:</p> <p>Frequency Response to Main Output(48K): 20Hz~20KHz at +4dBu ±1.5dB</p> <p>Frequency Response to Main Output(96K): 20Hz~20KHz at +4dBu ±1.5dB</p> <p>Distortion(THD&N) to Main Output(48K): <0.01% at 0dBu 1KHz</p> <p>Distortion(THD&N) to Main Output(96K): <0.01% at 0dBu 1KHz</p> <p>Gain: -8 to +10dBu</p> <p>Phantom Power(+/-3V): +48VDC</p>
				<p>Main outputs:</p> <p>Maximum Output Level: +21dBu</p>
				<p>AUX1~8 Outputs:</p> <p>Maximum Output Level: +21dBu</p>
				<p>SUB1~4 Outputs:</p> <p>Maximum Output Level: +21dBu</p>
				<p>Tape Outputs :</p> <p>Maximum Output Level: +16dBu</p>
				<p>Control Room Outputs:</p> <p>Maximum Output Level: +20dBu</p>
				<p>System Crosstalk:</p> <p>Input to Output(at +4dBu 1KHz): -83dBu</p> <p>Adjacent Channels(at +4dBu 1KHz): -82dBu</p> <p>Noise(Bus noise): -85dBu</p>
				<p>Noise Gate:</p> <p>Threshold Range: -84dBu - 0dB</p>

				Attack time: 0.5mS ~ 200mS Release time: 5mS~2S
				Compressor: Threshold Range: -30dBu - +20dB Attack time: 10mS ~ 150mS Release time: 10mS~1S Ratio: 1:1 to 24:1 Gain: 0dBu - +24dB
				EQ: Low (LowPass or LowShelf): 21Hz~19.2KHz +/- 24dB Low Mid: 21Hz~19.2KHz +/- 24dB High Mid: 21Hz~19.2KHz +/- 24dB High(HighPass or HighShelf): 21Hz~19.2KHz +/- 24dB
				Digital Audio: ADC Dynamic Range: 114dB DAC Dynamic Range: 114dB Internal Processor: 32-bit , floating point ADC,DAC bit depth: 24bit
				Impedances: Microphone input: 1.4KO Channel Insert return: 2.5KO All other inputs: 10KO or greater Tape out: 1KO All other output: 120O
		46	Electric Drumset	
				Kit configuration Drum sound module: TD-17 x 1 Snare: PDX-12 x 1 Tom: PDX-8 x 3 Hi-Hat: CY-5 x 1 Hi-Hat control pedal: FD-9 x 1 Crash: CY-8 x 1 Ride: CY-8 x 1 Kick: KD-10 x 1 Drum Stand
				Extra trigger input jack 2 (CRASH 2, AUX)
				Accessories Sound module mount AC adaptor Special connection cable Drum key Knob bolt (for PDX-12) Setup guide Owner's manuals

For the information and guidance of all concerned.

A handwritten signature in black ink, appearing to read 'SEVEDEO J. MALATE', written over a faint, circular, light-gray watermark or background mark.

SEVEDEO J. MALATE

Chairman, Bids and Awards Committee