

**SUPPLEMENTAL/BID BULLETIN NO. 1**

**BID ID # 131660**

Procurement of the Equipment and Machineries of Negros Occidental Center for Design, Entrepreneurship, Leadership, Innovation, Good Ideas, Human Development and Technology Transfer (NOCDELIGHT FabLab)

**MATTERS ARISING FROM THE PRE-BID CONFERENCE**

Item	Bid Document & Section	Amendment/ Clarification/Instruction
1	Bid Document	Amendment: From 5 <sup>th</sup> Edition to <b>6<sup>th</sup> Edition</b>
2	Bid Document Section 1. Invitation to Bid, #2 and #7	Amendment: 2. Delivery Term – Sixty (60) days is amended to <b>Ninety (90) days</b> 7. Schedule of Bid Opening – December 8, 2020 (declared Special holiday) is rescheduled on <b>December 14, 2020</b>
3	Bid Document Section 1. Invitation to Bid, #5	Amendment: Cost of Bidding Documents is amended to <b>P10,000.00</b> from P5,000.00 ( <i>per 2016 Revised IRR of RA 9184, Appendix 8, page 220</i> )
4	Bid Document Section VI. Schedule of Requirements Section VII. Technical Specifications	Amendment: Legend : <del>Word</del> - Deleted Specifications <b>Word</b> - New/Additional Specifications  <b>Item #1 – 3D Printer</b> <del>MultiJet Printing</del> Fuse deposition modelling; Build volume (mm): <b>at least</b> 295 x 211 x 142; <del>Resolution (dpi): 800 x 900 x 790</del> <del>Build Size (X): 11.6";</del> <del>Build Size (Y): 8.3";</del> <del>Build Size (Z): 5.6";</del> <del>Footprint (X): 44.1";</del> <del>Footprint (Y): 29.1";</del> <del>Footprint (Z): 42.1"</del> Resolution 0.01 - 0.4 Nozzle:dual extruder Filament type and size: - 1.75mm – 3mm (diameter) - ABS, PLA, PETG, PVA etc Auto resume Full enclosure  Certificate of competency : Trainers are capable of handling this 3d printer

## DEPARTMENT OF TRADE AND INDUSTRY – REGION 6 BIDS AND AWARDS COMMITTEE

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		<p>Certification from Manufacturer / Distributor that supplier is an authorized reseller or equivalent</p> <p><b>Item #2 –</b>  <b>3D Software: Four (4) units commercial and six (6) units Students version</b>  Specs: 3D modeling software (3D Design/3D CAD software) for Industrial Users that require 3D design, visualization and simulation capabilities. 3D solid modeling computer-aided design (CAD) and computer-aided engineering (CAE) 3D modeling software that runs on Microsoft Windows and Mac.  OS: Windows and Mac  Formats: 3dm, 3ds, cd, dae, dgn, dwg, emf, fbx, gf, gdf, gts, igs, kmz, lwo, rws, obj, off, ply, pm, sat, scn, skp, slc, sldprt, stp, stl, x3dv, xaml, vda, vrml, x_t, x, xgl, zpr.</p> <p>Certificate of competency : Trainers are capable of handling this unit</p> <p>Certification from Manufacturer / Distributor that supplier is an authorized reseller or equivalent</p> <p><b>Item #3 –</b>  <b>CNC Plasma Cutting Machine</b>  Cut Width X Length: 127 cm X 248.9 cm  Travel Speed: Up to 1000 inches/min  Part Contouring Speed: Up to 400 inches/min  CNC Servo Motor Software  Fiber optic USB communication!  Software is Windows 10 or compatible.  The precision ball screw and bearings are sealed in a milled assembly for long service life.  linear belt drives (AT5 urethane belts) with embedded steel cables to prevent any belt stretch.  Homes on hard stops, eliminating pesky limit switches, that fail and can result in machine damage.  Accessories include a stainless steel water tray or downdraft air table, collision protection, laser locator, marking attachment, a HD Screen PC and Many CAD and CAM software options.</p> <p>100A  Licensed CAD CAM software  Power requirement: 3phase</p> <p><b>Item #4 –</b>  <b>Thermal Forming Machine</b>  Forming Area (mm / inches): 430 x 280mm / 17 x 11”;  Sheet Size (mm / inches: 450 x 300mm / 18 x 12”;  Max Depth of Draw: 160mm / 7”;  Max Material; Thickness: 6mm / 0.25”;  Heating Zone: 4 ;  Heater Type: Quartz;</p>



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		<p>Width: 639mm / 25.2"; Height: 525mm / 20.7"; Depth: 986mm / 38.8"; Weight: 75kg / 165lbs; Single Phase Power Requirement: 208-240V / 13A; Power Consumption: 2.3kW <b>Accessory:</b> 20 plastic sheet consumables</p> <p><b>Item #5 –</b> <b>Laser Cutter/Engraver</b> <del>Max.</del> Working area: 1300 x 900 (mm), +/- 100mm Machine Size: <del>(W x L x H): 1910 x 1710 x 1370 (mm);</del> Manufacturing Standard</p> <p><b>Item #6 –</b> <del>96-48-8 (3.05m-1.52m-0.15m) Axis</del> <b>CNC Router including software and complete accessories – Shopbot include 3D software and complete accessories</b></p> <p><del>Personal Robotic Systems include</del> VCarve Pro <del>ShopBot</del> Edition design software, <del>ShopBot</del> Control Software, Dust Skirt, X and Y Axis Proximity Switches and Z-zero Plate. Cutting Volume: at least 59" x 26" x 6" <del>65" x 26" x 6" 96" x 48" x 6"</del> <del>Nominal Cutting Area: 120" x 60" x 6"</del></p> <p><del>Total Movement Area: 102" x 50" x 8"</del> <del>Footprint: L120" x W79" x H67"</del> Drive Motor: Closed loop steppers with 7.2:1 gear boxes. Cutting Speed: Up to 600" per minute Jog Speed (Bit out of material): 30" (760mm) per second Step Resolution (Distance per step): .0004" (0.01mm) Postional Repeatability: ±0.002" (0.05mm) Linear Cutting Force: ≈150 lb at 1" (25mm) per second</p> <p>Electrical Power Requirements: 220V 20A for Controls &amp; Router <b>Single phase or 3phase</b></p> <p>Spindle Packages &amp; Routers: Spindle packages include collets, collet nuts, wrenches, pre-programmed/pre-wired frequency drive &amp; RPM controller 220 V 1ph.,HSD Spindle 2.2 HP or 220V 1ph, Kit Porter Cable <del>for ShopBot</del> Desktop CNC. Router bit Starter kit. <b>Accessories, Additional Software, Vacuum Systems &amp; Dust Collectors</b> Universal Vacuum Hold-down System: Vacuum Hold Down System: <del>at least 117.8 CFM, 10" Hg, 16.9 hp, 220 Vac 82dB, 1 ph, 5 PSI max – Manufacturing Standard</del></p>

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		<p>Dust Collector: <del>1.5hp, 60Hz, 110v, 1,280CFM, FLA 16A, 2 4" Ports, 6" Inlet with 4" dia, 18' clear flex hose</del> Manufacturing Standard</p> <p><del>12"</del> Rotary Indexer</p> <p><b>Computer Requirements</b>  Operating system: Windows 10  Hardware: Laptop for CNC Router compatible  Software: Adobe Reader  Design Software: Licensed software; compatible to the machine  <del>Vecarve Pro Shopbot Edition, AutoDesk Fusion360, Vectric Aspire, Rhino 3D</del></p> <p><b>Item #8 –</b>  <b>Large Scale 3D Printers</b>  <b>General Information</b>  Printing Technology – FFF (Filament Filament Fabrication)  Number of print heads – dual  Delivery – self-assembly kit.  <b>Dimensions</b>  machine size- 1520X 926 X 1221 mm (W X D X H)  build volume – at least 1200(x) x 600(y) x 600(z)mm</p> <p><b>Construction</b>  Solid 40X40 T-slot aluminum profiles  Powder coated laser cut aluminum brackets and joints  Closed enclosure made of acrylic</p> <p><b>Motion System</b>  <del>Hiwin MGn12H</del> linear guides rails  Z ball nut screws for Z axis  9mm width Gates <del>GT2</del> timing belt, fiber glass reinforced.  Z motors: 3 X belt geared 40mm  X &amp; Y motors: 60mm  Position accuracy: X 5 Micron, Y 10 Micron, Z 0.5 Micron.  Print speed – Normal 60-80 mm/sec, Draft 100-150 mm/sec</p> <p><b>Hot End</b>  <del>E3D V6 volcano</del> high flow heat block.  1.75 mm filament diameter.  0.4, 0.6 &amp; 0.8 mm brass Volcano nozzles.  Heater cartridge is 24V, 40W  cooling fan : blower fan</p> <p><b>Extruder</b>  <del>E3D Titan</del> extruder for both primary and secondary extruder.  Configuration:  Main – direct drive, secondary – Bowden.  Extruder drive gear ratio 3:1 for power and accuracy.  40mm for high power extrusion.  Adjustable idler tension</p>





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		<p><b>Print Bed</b>  6.35mm thick, <del>Aleoa-Mie6-milled</del> cast aluminum plate.  AC powered bed heater 1600Watt.  Dual heating zones. Inner 200X200mm size for small objects.  Max temperature – 120 oC  Print surface – PEI film with adhesive sheet <del>or glass</del></p> <p><b>Auto Bed leveling</b>  Inductive sensor, BL touch  bed leveling algorithm.  Online editor for easy manual map editing</p> <p><b>Software (Licensed)</b>  Open source  " Any available slicer and 3d printer controller including:  Slic3r, Cura  Printerface and Simplified3d. <del>We provide</del> printer profiles"</p> <p><b>Power</b>  Supporting both 110V and 230V, 60 Hz  Enclosed Power Supply – Meanwell 24V, 280W  Protections: Short / Overload / Over voltage / Over temp.  LED indicator for power on  Aviation grade switches and connectors  Heat Bed AC powered heater 1600Watt</p> <p><b>Control</b>  Stand-alone operation: SD Card  From PC- USB cable  Wifi control <del>via Octoprint</del></p> <p><b>Filament</b>  " Printing head supports almost any existing filament including: PLA, ABS, PLA composites (Carbon fiber, Wood, Copper, Brass, Magnetic), PHA, PVA, Hips, Nylon, TPE &amp; TPU (Flex) Co-Polyester, PETG..."  " <b>Open Filament</b>– <del>you can use any filament from any vendor.</del>"  " <b>Filament Run-Out Sensor</b> – The filament run out detection sensor will pause the print job when the filament is finished"</p> <p><del>Certificate of competency : Trainers are capable of handling this unit</del></p> <p><del>Certification from Manufacturer / Distributor that supplier is an authorized reseller or equivalent</del></p> <p><b>Item #9 –</b>  <b>Desktop Computer</b>  Processor: Intel Core <del>i8-8th</del> i7-10<sup>th</sup> or better generation Quad Core Processor (8M Cache, up to 4.20 GHz)  Memory: Single <del>8-GB</del> 16 GB or higher of DDR4 system memory  upgradable to 16GB using two DIMM modules  Storage: 1TB 2.5-inch 5400 RPM + 8GB cache</p>

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		Display: 27" display, Full HD 1920 x 1080, high brightness LED-backlit TFT LCD. Graphics NVIDIA GeForce GTX 1050M <b>or higher</b> with 4 GB of dedicated GDDR5 VRAM, Mouse: optical Operating System: Windows 10 and keyboard 650 VA UPS, Computer Table

Please be guided accordingly.

Prepared By:	Approved By:
 <b>JUDITH G. KELLY</b>	 <b>FELISA JUDITH L. DEGALA</b>
Bids and Awards Committee Secretariat	Chair, Bids and Awards Committee