

Section VII. Technical Specifications

Notes for Preparing the Technical Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying their bids. In the context of Competitive Bidding, the specifications (e.g. production/delivery schedule, manpower requirements, and after-sales service/parts) must be prepared to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of transparency, equity, efficiency, fairness and economy in procurement be realized, responsiveness of bids be ensured, and the subsequent task of bid evaluation and post-qualification facilitated. The specifications should require that all items, materials and accessories to be included or incorporated in the goods be new, unused, and of the most recent or current models, and that they include or incorporate all recent improvements in design and materials unless otherwise provided in the Contract.

Samples of specifications from previous similar procurements are useful in this respect. The use of metric units is encouraged. Depending on the complexity of the goods and the repetitiveness of the type of procurement, it may be advantageous to standardize the General Technical Specifications and incorporate them in a separate subsection. The General Technical Specifications should cover all classes of workmanship, materials, and equipment commonly involved in manufacturing similar goods. Deletions or addenda should then adapt the General Technical Specifications to the particular procurement.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for equipment, materials, and workmanship, recognized Philippine and international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that equipment, materials, and workmanship that meet other authoritative standards, and which ensure at least a substantially equal quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the Special Conditions of Contract or the Technical Specifications.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Technical Specifications to specific standards and codes to be met by the goods and materials to be furnished or tested, the provisions of the latest edition or revision of the relevant standards and codes shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or relate to a particular country or region, other authoritative standards that ensure substantial equivalence to the standards and codes specified will be acceptable.

Reference to brand name and catalogue number should be avoided as far as possible; where unavoidable they should always be followed by the words "or at least equivalent." References to brand names cannot be used when the Funding Source is the GOP.

Where appropriate, drawings, including site plans as required, may be furnished by the Procuring Entity with the Bidding Documents. Similarly, the Supplier may be requested to provide drawings or samples either with its Bid or for prior review by the Procuring Entity during contract execution.

Bidders are also required, as part of the technical specifications, to complete their statement of compliance demonstrating how the items comply with the specification.

Technical Specifications

| Item | Specification | Statement of Compliance |
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| | | <p>Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of ITB Clause 3.1(a)(ii) and/or GCC Clause 2.1(a)(ii).</p> |
| 1 | <p>Electronic Circuit Design and 3D Simulation Software (20 users) FEATURES: Features and Capabilities:</p> <ol style="list-style-type: none"> 1. Schematic Editor 2. Schematic Symbol Editor 3. Footprint Editor 4. Netlist Editor 5. Live 3D Breadboard Tool 6. Advanced PCB Designer <ol style="list-style-type: none"> a. Automatic and Manual Design Tools b. Creating flex PCB's c. Animated 3D view 7. Electrical Rules Check(ERC) 8. Interpreter 9. Library Manager 10. Parameter Extractor | |

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11. Text and Equation Editor
12. DC analysis
13. Transient Analysis
14. Fourier analysis
15. Digital Simulation
16. HDL Simulation (VHDL, Verilog, Verilog-A, Verilog-AMS)
17. Microcontrollers (MCU) Simulation
 - a. MCU Simulation and Debugging (PIC, AVR, 8051, 8085, HCS, ARM)
 - b. Linux and Android Simulation (ARM)
 - c. Mixed Spice Simulation (Berkely and Xspice)
18. Flowchart Editor and Debugger
19. AC analysis
20. Network analysis
21. Noise analysis
22. Symbolic analysis
23. Monte-Carlo and Worst-case analysis
24. Design Tool
25. Optimization
26. Post-processor
27. Presentation
28. Interactive mode
29. Virtual Instruments
 - a. Digital Multimeter
 - b. Function Generator
 - c. Storage Oscilloscope
 - d. Signal and Network Analyzer
 - e. Digital Signal Generator
 - f. Logic Analyzer
30. Real-time Test & Measurements
31. Training and Examination
 - a. Learning Management Tool – Simulator's Training Supervisor
 - b. Teach and Learn Troubleshooting
 - c. Problem Solving
 - d. 1200 circuits and Integrated E-Books

COMPONENT MODELS INCLUDED IN THE SOFTWARE:

1. Passive components
 - a. Resistor
 - b. Potentiometer
 - c. Thermistor
 - d. Lamp
 - e. Capacitor
 - f. Lossy capacitor
 - g. Charged capacitor
 - h. Inductor
 - i. Energy-storing
 - j. Inductor
 - k. Coupled Inductors

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| <ul style="list-style-type: none"> l. Non-Linear coil m. Transformer n. Relay <ul style="list-style-type: none"> o. Diodes(including Zener, Multi-color LED, Varicap, Schottky, Graetz, diode arrays) p. Motor q. Transmission Line r. Fuse 2. Active components <ul style="list-style-type: none"> a. Bipolar transistor (NPN and PNP) b. Darlington transistor c. MOS transistor (including BSIM3 models) d. JFET (N and P channel) e. IGBT f. Thermistor g. Thyristor h. Triac i. Diac j. Ideal or nonlinear k. Operational amplifier <ul style="list-style-type: none"> l. Transient and average SMPS models m. Manufacturer made Spice models <ul style="list-style-type: none"> n. Optoelectronic components (photodiode, phototransistor, solar cell, optocoupler) 3. Sources <ul style="list-style-type: none"> a. Current source b. voltage source c. current generator d. voltage generator e. standard and arbitrary user-defined waveforms f. PWL g. WAV file h. Linear and nonlinear controlled sources (CCCS, VCCS, CCCVS, VCVS) i. Digital pulse source, digital clock 4. Basic digital components <ul style="list-style-type: none"> a. AND b. OR c. NAND d. NOR e. XOR gates with 2, 3 and 4 inputs f. Buffer g. Tri-state buffer h. Inverter i. Schmitt j. Inverter k. D flip-flop l. SR flip-flop m. JK flip-flop n. D latch 5. Digital IC <ul style="list-style-type: none"> a. MCU(PIC, AVR, ARM, 8051) | |
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| | <ul style="list-style-type: none"> b. 4000 logic family c. 74000 logic family d. VHDL to test and build your own logic components e. FPGA and CPLD libraries <p>6. Measuring Instruments</p> <ul style="list-style-type: none"> a. Voltage meter b. Voltage pin c. Test point (for real time measurement) d. Ampere meter e. Current arrow f. Power meter g. Impedance meter <p>7. Other components</p> <ul style="list-style-type: none"> a. Time controlled switch b. Voltage controlled switch c. AD and DA converter d. Timer e. Comparators f. Analog control blocks g. Pull-up resistor h. Seven-segment display i. Keypad j. Voltage regulator k. Vacuum tube l. Passive and active RF components m. Two ports (S, Z, Y H) <p>Minimum hardware and software requirements</p> <ul style="list-style-type: none"> 1. Intel Pentium or equivalent processor or above 2. atleast 1 GB of RAM or higher 3. atleast 300 MB of available hard disk space 4. CD-ROM (in case of CD ROM installation) 5. Mouse or touchpad 6. VGA adapter card and monitor 7. Microsoft Windows 9x/ ME/ NT/ 2000/ XP / Vista/ Windows 7 Windows 8/Windows 10 8. Supported Networks (for Network versions): MS Windows 2000/2003/2008/2012 server or later, Linux Server, Novell Netware versions 3.12 or later | |
| 2 | <p>Electronic Application Trainer</p> <p>The training shall be a complete tutorial board in the study of Arduino programming and applications.</p> <p>The training kit shall have the following technical specifications:</p> <p>1. Power Supply (Built-in),</p> <ul style="list-style-type: none"> · Input: AC 110/220V, 50/60Hz · Output : +5V/1.5A, +3.3V/0.5A · Surface Mounted LED for power indicator · 33uH Surface Mounted Inductor · Mounted 1x8 Female Dupont Connector x3 | |

- Mounted LOW-Drop Voltage Regulator (LD1117A) for power regulation
- Surface Mounted 2.5A 16V F250L Self recovery fuse-in
- Surface Mounted 1N5822
- DC/DC converter IC (AP1501)
- Mounted 16v 330uF Capacitor x3

2. Control Board

- Arduino UNO R3
- Core: ATMEGA328P Digital IO : 14 (D0~D13)
- Analog IO : 6 (A0~A5)
- PWM Output : 6 (D3, D5, D6, D9, D1, D11)
- Support AREF pin
- Support TX/RX pin
- Support I2C interface
- Support ISP download
- Programming Interface: USB Type-B
- With mounted parallel Female Dupont connector for upgrade module

3. Input Module

Digital Input

- 4x4 Key Pad:
 - o tact switch button with HIGH initial state
 - o Mounted 1x8 female Dupont connector for controls
 - o Network Resistor Array (10K , 9pins)
- DIP Switch 8bits:
 - o Mounted 1x8 female Dupont connector for controls
 - o Network Resistor Array (10K , 9pins)

Analog Input

- Slide Potentiometer:
 - o 20K Ω x 2
 - o Mounted 1x2 female Dupont connector for controls
- Joystick x 1 :
 - o Vertical, Horizontal and Middle Button
 - o Mounted 1x3 female Dupont connector for controls
- Microphone x 1 :
 - o Mounted Dual OP-Amp (LM358)
 - o Surface Mounted Resistors: 1k, 10k, 3.3k, 47k
 - o Mounted Female Dupont Connector for controls

Sensor Input

- CDS Sensor x 1 : with Mounted Female Dupont Connector for controls
- Temperature & Humidity Sensor x 1: with Mounted 1x2 female Dupont Connector for controls
- Accelerometer: 3-axis, with mounted 1x5 Female Dupont Connector for controls

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| <ul style="list-style-type: none"> · Ultrasonic Sensor x 1: with mounted 1x2 Female Dupont Connector for controls · Infrared transmitter & receiver x 3: with Mounted 1x3 Female Dupont Connector for IR LINE Tracer controls 4. Output Module · LED Matrix Display: <ul style="list-style-type: none"> o 8x8 o driver IC (ULN2803A,74HC138, 4801) o 10k surface mounted resistor x8 o 100 Ohms surface mounted resistor x8 o mounted 1x4 and 1x8 Female Dupont Connector for controls · 4-Digit 7-Segment Display: <ul style="list-style-type: none"> o Common-Anode o Driver IC (4801 x2), o 150 Ohms surface mounted resistor x9, o 10K surface mounted resistor o Mounted 1x5 and 1x8 Female Dupont connector for controls · LED Bar: <ul style="list-style-type: none"> o 10 bits (Common-Anode) o 1x10 Female Dupont connector for controls · RGB LED x 4: <ul style="list-style-type: none"> o Driver IC (4801 x2) o 10k surface mounted resistor x4 o 1k surface mounted resistor x3 o Mounted 1x8 Female Dupont connector for controls · High Power LED x1: <ul style="list-style-type: none"> o 1W (Common-Anode) o Driver IC (4801) o 560 ohms 1/2W resistor o 10K surface mounted resistor o Mounted 1x2 female Dupont connector for controls · Serial RGB LED x 20: <ul style="list-style-type: none"> o 1x1 DIP switch for power o 0.1uF surface mounted Capacitor o Mounted 1x2 Female Dupont connector for controls · LCD Display 16x2 (serial and Parallel Control): <ul style="list-style-type: none"> o Mounted 1x11 Female Dupont connector for parallel control o Mounted 1x2 Female Dupont connector for Serial Control o Mounted 1bit DIP switch for Power o Mounted IC Driver (PCF8574 Remote 8-Bit I/O Expander) for Serial Control o Surface Mounted resistors for serial connection: 150 Ohms, 2K, 10K, 1.8K x2 o Surface Mounted 10K Trimmer Potentiometer · Relay: 5V, x2 | |
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- o Driver IC (4801)
- o Surface mounted Diode for protection
- o Surface Mounted LED for triggered indicator
- o Resistors: 470 Ohms x2, 10K Ohms x2
- DC Motor : 5V, x2
- o Surface Mounted Motor Driver IC (L293D)
- o 4.7K Ohms Surface Mounted Resistor x2
- o 1N4001 Surface Mounted Diode x8
- o Mounted 1x6 Female Dupont connector for controls
- Step Motor : 12V, 7.5 deg / tick
- o Surface Mounted Motor Driver IC (L293D)
- o 4.7K Ohms Surface Mounted Resistor x2
- o Mounted 1x62 Female Dupont connector for Comm controls
- o Mounted 1x6 Female Dupont connector for step controls
- o Mounted 2bit DIP Switch for power
- Servo Motor : 4.8V~6V , x 2
- o 4.7K Ohms Surface Mounted Resistor x2
- o Mounted 1x2 Female Dupont connector for controls
- o Mounted 1x6 Male Dupont connector for motor control
- Electromagnetic Buzzer x 2
- o Surface Mounted FET x2
- o Mounted 1x2 Female Dupont connector for control
- o Surface Mounted Resistor 1.8K
- 5. Communication Module**
- Wi-Fi: ESP8266 x 1
- o Mounted 1x4 and 1x8 Female Dupont connector for control
- o Surface Mounted 10k Resistor
- Bluetooth: HC05 x 1
- o Mounted 1x2 Female Dupont connector for Transmitter and Receiver
- 6. Other Module**
- Solderless Breadboard: 81x62mm, 456 tie points
- The kit shall be used to perform the following experiments and applications:**
- Buzzer application: Mono tone output / Multi tone output / Song playing
- LED matrix display: Static and dynamic
- 4-digit 7-segment display: Basic output / Digital clock
- Relay control
- High power LED application: PWM control with slide potentiometer and PC
- Microphone application: Noise detection
- CDS application: Light detector

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| | <ul style="list-style-type: none"> · Classical RGB LED control: Static / Dynamic display · Serial RGB LED control: Color control · Parallel LCD display control: Static display · Serial LCD display control: Display <p>temperature</p> <ul style="list-style-type: none"> · Ultrasonic application: Distance measurement · Infrared application: Line tracer · Servo motor application: Control with slide potentiometer and joystick · Accelerometer application: Balance detection · DC motor application: Speed and direction control · Step motor application: Unipolar and Bipolar control · Bluetooth application: Connect to mobile phone · Wi-Fi application: Connect to cloud <p>The set shall have the following accessories:</p> <ol style="list-style-type: none"> 1. English Experiment manual x1 2. Software / Source Code CD x 1 3. AC Power Cord x 1 4. USB cable (Type-A to Type-B) x 1 5. Flat cable (5x2 pin) x 1 <p>Dupont wire x 40</p> | |
| 3 | <p>MICROCONTROLLER TRAINER</p> <p>The Training System shall have the following features:</p> <ul style="list-style-type: none"> · Uses 8-bit microcontroller, to implement various I/O control experiments. · Contains most of the powerful functions in modern MCUs nowadays · Can be used for automation, motor control, device measurement, and mechanical controls...etc. · Its popular and well-known by its economic cost, · Wide applicability, · High accessibility and reliable stability. · Contains several peripheral devices, from basic LED to advanced capacitive sensing module · Combination of these devices enable to create different kind of control experiments. · Together with friendly experiment manual · Can learn the control of MCU more conveniently and efficiently. · Ideal for beginners of learning programming language. · Each experimental block uses individual control switch to avoid interference if sharing pin. · Pins of the microcontroller have been connected to the peripherals inside the trainer. · There is no need to connect it manually. | |

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“Reset” button: to reset the chip if errors occur.
Development interface is reserved for advanced learners, which can connect the external modules to the chip pins.

This training equipment shall compose of the following Specifications:

1. PIC16F887 chip x 1
- (1) 40 pins(35 input/output pins)
- (2) 368 bytes RAM memory
- (3) NanoWatt Technology
- (4) (4) 10-Bit Analog-to-Digital (A/D) Converter
- (5) Operating Frequency (0~20MHz)
2. UART to USB Interface x 1
3. EEPROM 64Kbits x 1
4. 20 x 2 character LCD x 1
5. 4-digit 7-segment display x 1
6. Capacitive sensing button x 1
7. LED x 11
8. 8 x 8 multicolor dot matrix LED display x 1
9. Buzzer and status LED x 1
10. 5K variable resistor x 1
11. AD590 temperature sensor x 1
12. Stepping motor and status LED 7.5 degrees x 1
13. 10 x 2 extend socket x 2
14. Slide switch x 8
15. 4 x 4 matrix keypad x 1
16. Built-in power supply :

Input : 100~240VAC, 50/60Hz, 0.65A

Output : 12V/1.2A, 5V/2.1A, 3.3V/1A

Experiments for:

1. Basic I/O Controls
2. External Interrupt I/O Experiment
3. Chip Clock
4. Watch dog Timer
5. Timer
6. UART
7. I2C
8. LCD module experiment
9. Temperature Measurement experiment
10. LED matrix display experiment
11. Stepping Motor experiment
12. Capacitive touch sensing experiment

This Training Equipment must supply with this following Accessories:

1. A.C. power cord 1pc
2. Fuse 1pc
3. Experiment manual written in English 1pc

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| | <ol style="list-style-type: none"> 4. Experiment CD (working codes of the performable experiments) 1pc 5. USB A-B type cable, 150cm 1pc 6. IDC cable 10x2 pin, 20cm 1pc 7. Dupont Line 1P-1P, 150mm 20pc 8. 6pin Programmèr Cable 1pc 9. Microchip PICkit 3 debugger/programmer | |
| 4 | <p>Advanced Process Welding Machine</p> <p>Must include the following components:</p> <ol style="list-style-type: none"> 1. Advanced Process Welding Machine 2. Advanced Process Dual Bench Wire Feeder 3. Advanced Process Module 4. Water Cooler 5. Dual Cylinder Inverter & Wire Feeder Cart w/ Feeder Mounting Kit 6. Drive Roll Kit .040 in (1.0 mm) Solid Wire 0.83 7. TIG Torch to Stud Adapter Cable 8. Stick Electrode Holder 9. TIG Torch Parts Kit 10. TIG Torch 11. Arc Start Switch 12. 12-Pin to 6-Pin Adapter 13. TIG Foot Pedal 14. TIG Adapter Kit 15. Welding Gun 16. Drive Roll Kit .035 in (0.9 mm) Solid Wire 17. Drive Roll Kit .040-.045 in (1.0-1.1 mm) Cored Wire 18. Weld Cable Package 19. Flowmeter Regulator and Hose 20. Low Conductivity Coolant <p>Advanced Process Welding Machine Specification:</p> <p>Automatic Adjust Input Power: 200-600V, 60Hz, single phase or three phase</p> <p>Rated Output: 350A/31.5V/40%</p> <p>Input Current 3PH: 40% - 39/35/19/17/14A</p> <p>Input Current 1PH: 40% - 60/61/NA/NA/NA A</p> <p>Output Range: 5-350A DC</p> <p>Input Power Cord: 10 ft. (3.0 m)</p> <p>Cloud-based system to view or analyze your welding data.</p> <p>Track equipment usage, store weld data, configure fault limits.</p> <p>IP23 rated Compact and Durable Case.</p> <p>Standard Ethernet</p> <p>Advanced Process Dual Bench Wire Feeder</p> <p>Must include the following components:</p> <ol style="list-style-type: none"> 1. User interface | |



2. Standard #2 - #4 gun adapter
3. 20 tooth pinion gear
4. Heavy duty wire reel stand
5. 8 ft. (2.4 m) control cable
6. USB Port

Specification:

Solid Wire Size Range: .025 - 1/16 in (0.6 - 1.6 mm)
 Cored Wire Size Range: .035 - .120 in (0.9 - 3.0 mm)
 Wire Speed Range IPM (m/min): 50-700 ipm (1.3-19 m/min)
 Dual Wire Feeder

Advanced Process Module

Must include the following components:

1. Power Source Output Pigtail Adapter Cable
2. 25 ft. (7.6 m) Remote Voltage Sense Lead
3. ArcLink Output Receptacle
4. Differential Input and Output
5. Shielding Gas Input

Specification:

Input Power : 40V DC
 Rated Output: 100% Duty Cycle: 300A@32V
 40% Duty Cycle: 350A@34V
 Peak (Max.): 600A
 Provides multi-process reverse polarity (DC+),
 Straight polarity (DC-), AC
 High frequency TIG
 Quick Lock Mounting System
 Ingress Protection (IP23) Safety
 Digital Communications
 Intelligent Protection Prevents potential damage
 caused by misconnection and
 voltage transients.
 Fan synchronizes operation with the host power
 source

Water Cooler

Water cooler capable of cooling torches rated up to
 500 amps.

**Dual Cylinder Inverter & Wire Feeder Cart w/
 Feeder Mounting Kit**

Rear-wheeled cart with front casters and dual cylinder
 platform.
 Convenient handles allow for easy cable storage.
 Small footprint fits through 30 inch (762 mm) door.
 Feeder Mounting Kit for Inverter Cart.
 Requires the power source to have the Locking Foot
 Kit installed.

Drive Roll Kit .040 in (1.0 mm) Solid Wire 0.83

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TIG Torch to Stud Adapter Cable

2 ft. (3.7 m) Gas Hose

Stick Electrode Holder

Connector. 12.5 ft. cable length

TIG Torch Parts Kit

Parts Kits include collets, collet bodies, a back cap, alumina nozzles and tungstens in a variety of sizes, all packaged in an easy to carry reclosable box.

TIG Torch

Specification:

Gun Type: Handheld

Cable Length: 25 ft.

Number of Cables: 3

Cooling: Water cooled

Arc Start Switch

25 ft. (7.6m) cable

12 pin to 6 pin connector

TIG Foot Pedal

Provides 25 ft. (7.6 m) of remote current control for TIG welding

TIG Adapter Kit

Welding Gun

Specification:

Duty Cycle at Rated Amperage: 60%

Rated Amperage: 200

Gun Type: Handheld

Cable Length: 15 ft. (4.5 m) Ready-Pak

Wire Diameter: .025-3/64 in. (0.6-1.2 mm)

Cooling: Air cooled

Drive Roll Kit .035 in (0.9 mm) Solid Wire

Drive Roll Kit .040-.045 in (1.0-1.1 mm) Cored Wire

Weld Cable Package

Work clamps, 15 ft. (4.5 m) work cable and 10 ft. (3.0 m) electrode cable.

Rated 350 amps, 60% duty cycle.

Flowmeter Regulator and Hose

Low Conductivity Coolant

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| | One Gallon of Low Conductivity Coolant | |
| 5 | <p>Advance Virtual Welding Trainer</p> <p>Features:</p> <ul style="list-style-type: none"> •Replicates proper machine set-up using a Welding Procedure Specification. Students must select gas type, process, gas flow, amperage/voltage and wire-feed speed in the system. •Retractable SMAW stick stinger, GMAW/FCAW gun and GTAW TIG torch, filler metal and adaptive foot pedal devices realistically simulate the look, feel and action of actual guns and torches. •Practice flat, horizontal, vertical and overhead 5G and 6G on mild steel, aluminum, stainless steel. •Extremely realistic weld puddle is visually and audibly responsive to operator behavior, helping welders learn when to adjust welding technique. Welding discontinuities appear when improper technique is used. · Simulates sparks, slag, grinding and weld cooling. · Welding discontinuities appear when improper welding technique is used. •Virtual bend test provides results instantly and reveals what causes a weld to pass or fail. •Tracks and scores key weld parameters including work angle, travel angle, travel speed, distance and position. •Replay mode (in multiple views) helps instructors and welders identify what went wrong or well. •SMAW and GMAW Welding Training Curriculum, Student Workbook, Instructor Guide. <p>Processes:</p> <ul style="list-style-type: none"> · Simulated SMAW · Simulated GTAW · Simulated GMAW · Simulated FCAW <p>Equipment Details: Input Power: 230V/60Hz Single User</p> | |

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| | <p>Input Current: 2A at 230 Net Weight: 950.00 (430.92 kg) Dimensions: Machine: 34.4H x 19.8W x 38.4D in. (874H x 503W x 975D mm) Stand: 78.5H x 36W x 46.38D in. (1993.9H x 914.4W x 1178.1D mm)</p> | |
| 6 | <p>Standard Welding Gear Package</p> <p>Top Features</p> <ul style="list-style-type: none"> · Complete with top grade personal protective equipment · Long lasting quality · Comfortable and stylish <p>Industrial Duffle Bag Dimension: 24 x 12 x 12 in. Resists wear and abrasion Three exterior pockets store common welding accessories Padded shoulder strap 4 inch carabiner</p> <p>Passive Welding Helmet Compliance: ANSI Z87.1-2003/CSA Z94.3 Fixed shade/control: 11 Magnifying Capable Lens: Yes View Size IN. (MM): 4 x 5 (102 x 127)</p> <p>Traditional Khaki Flame Retardant Cloth Jacket Constructed with 100% 9 oz. flame retardant cotton Inside pocket for protected storage Machine washable Snap sleeves for form fitting cuffs Length is 30 inches measure from collar seam to bottom of jacket</p> <p>Traditional MIG/Stick Welding Gloves Made of heat and flame resistant shoulder split cowhide Kevlar Stitching with welted seams for added durability Full sock lining with straight thumb for improved finger tip sensitivity 5 Inch. Cuff for added Protection</p> <p>Clear Safety Glasses One size fits all Frameless clear lens Meets ANSI Z87.1+</p> | |

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| | <p>Flame Retardant Doo Rag 100% Flame Retardant Material Athletic mesh lining Machine Washable One Size Fits All</p> <p>Spring Handle Chipping Hammer The hammer head includes both flat and spike sides Light weight with shock reducing spiral handle</p> <p>Six Function Welding Pliers Six functions include nozzle and tip installation, wire cutting, nozzle cleaning, slag hammer and spatter removal. Spring loaded for easy opening and closing</p> <p>Carbon Steel Wire Brush 3 x 19 Row</p> | |
| 7 | <p>FUME EXTRACTOR</p> <ul style="list-style-type: none"> » Current Sensor – Automatic start/stop capability by sensing welding current » Multiple Extraction Settings – Select extraction CFM setting based on environmental conditions: 95 CFM (Low) or 108 CFM (High) » Quiet Operation – Operates at a sound level of <80dB(A) » Carbon Brush System – Monitors and alerts brush consumption based on 750 run hours » System Airflow Check – Easily observe extraction performance <p>TERMS AND CONDITIONS</p> <p>Warranty: ONE (1) year minimum on Parts and Service Bidder may opt to offer for additional warranty terms.</p> <p>Delivery: 150 Calendar Days</p> <p>Other Terms and Conditions:</p> <p>Bidder must submit brochure/catalogue indicating the brand name and model of bid item/s as additional technical requirements. Failure to submit will be grounds for disqualification</p> <p>Bidder must have a training center for the pre-training to be conducted @ the bidder's training center</p> | |

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| <p>and also for equipment testing and checking by the end-user prior to delivery at University of Science and Technology of Southern Philippines</p> <p>Bidder must conduct after sales training at University of Science and Technology of Southern Philippines after completion of delivery and installation</p> <p>Bidder must be an authorized distributor/reseller of the bid item/s and authorized to provide technical support and must attach documents to support such claim</p> <p>Bidder must attach pictures of their training center and also pictures of after sales training of faculty conducted at their training center as additional technical document requirements</p> | |
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