***Annex 2***

**FORM FOR SUBMITTING SUPPLIER’S QUOTATION[[1]](#footnote-1)**

***(This Form must be submitted only using the Supplier’s Official Letterhead/Stationery[[2]](#footnote-2))***

We, the undersigned, hereby accept in full the UNDP General Terms and Conditions, and hereby offer to supply the items listed below in conformity with the specification and requirements of UNDP as per RFQ Reference No. 599-2020-UNDP-UKR-RFQ-RPP:

**TABLE 1: BRIEF COMPANY PROFILE**

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| --- | --- |
| **BRIEF COMPANY PROFILE**  The Supplier must describe and explain how and why they are the best entity that can deliver the requirements of UNDP by indicating the following: | |
| **Full registration name** |  |
| **Year of foundation** |  |
| **Legal status** | If Consortium, please provide written confirmation from each member |
| **Legal address** |  |
| **Actual address** |  |
| **Bank information** |  |
| **VAT payer status** |  |
| **Contact person name** |  |
| **Contact person email** |  |
| **Contact person phone** |  |
| **Company’s core activities** |  |
| **Profile – describing the nature of business, field of expertise, licenses, certifications, accreditations (If any);** | Please indicate here |
| **Business Licenses – Registration Papers, Tax Payment Certification, etc** |  |
| **Certificates and Accreditation** | Please indicate here applicable including Quality Certificates, Patent Registrations, Environmental Sustainability Certificates, etc. |
| **Please provide contact details of at least 2 previous partners for reference** | Please attach minimum 2 recommendation letters from previous customers or copies of contract for provision of similar goods. |
| **Company is not in the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List.** | Please confirm (Answers: Yes, we are in the list/No, we are not in the list) |

**TABLE 2: Conformity to the specification**

**Lot 1. Computer and multimedia equipment**

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| **#** | **Technical requirements (Features at least)** | **Conformity**  (Yes/No) | **Offered Brand, Model and Exact characteristics** |
| 1.1 | **All-in-one computer (monoblock)**  Display diagonal: not less than 23.8 ";  Matrix type: IPS;  Maximum display resolution: at least 1920 x 1080;  SSD capacity: not less than 256 GB;  Processor: not less than Intel Core i3, 8th Generation or equivalent  AMD Ryzen 3;  RAM: at least 8 GB, DDR4  Ports:  4 x USB 3.1;  1 x HDMI input;  1 x HDMI output;  1 x LAN (RJ45);  Additional features: Wi-Fi, Bluetooth modules; built-in speakers (2x3 W)  **Operating system: Windows 10 X64 Pro OEM**  Complete set must include: optical mouse (sensor resolution 1000 dpi), keyboard (Ukrainian/English layout), cables, documentation |  |  |
| 1.2 | **Tablet**  Screen diagonal: not less than 10";  Screen resolution, not worse than: 2000x1200;  Operating system: not lower than Android 9;  Processor: not worse than Exynos 9611 Octa-core;  Internal memory: at least 64 GB;  RAM: not less than 4 GB;  Stylus: Yes  Complete set: compatible protective bumper, protective glass, stylus, documentation, charger |  |  |
| 1.3 | **Laptop #1**  Not less than    Display: 15.6-inch FHD (1920 x 1080); Processor no worse than: Intel Core i3, 8th Generation or equivalent AMD processor; RAM: not less than 8 GB DDR4;  Storage capacity and type: not less than 256 GB, SSD  Additional: webcam, built-in microphone, built-in stereo speakers, Bluetooth, Wi-Fi, Ukrainian/Russian/English layout  Interfaces: 1 x USB 2.0, 2 x USB 3.1, HDMI, LAN, combined audio jack  **Software: Windows 10 X64 Pro OEM**  Complete set: optical mouse (resolution 1000 dpi), documentation, power adapter |  |  |
| 1.4 | **Laptop #2**  Not less than  Display: 17.3”, 1920x1080  Screen type: IPS  CPU: Intel Core i5-9th Generation or equivalent AMD processor  RAM: 8GB DDR4  SSD: 512GB  Additional: webcam, built-in microphone, built-in stereo speakers, Bluetooth, Wi-Fi, Ukrainian/Russian/English layout  Interfaces: 1 x USB 2.0, 2 x USB 3.1, HDMI, combined audio jack  **Software: Windows 10 X64 Pro OEM**  Complete set: laptop, optical mouse, documentation, power adapter |  |  |
| 1.5 | **Microsoft Office 2019 with sticker**  64-bit / Office version: for home and business / Language: Ukrainian / Program Package: Word, Exсel, PowerPoint, OneNote, Outlook / License: fixed for 1 PC |  |  |
| 1.6 | **Smartphone**  Display: at least 6”  Form factor: touch screen  Battery capacity: at least 5000 mAh  Resolution: at least 1080x1920  RAM: at least 6 GB  Internal storage: at least 64 GB  Rear camera: quad camera, at least 48+8+5+5 MP  Front camera: 20 MP  Operating system: Android 10  Number of SIMs: 2  Color: White  Complete set: compatible protective bumper, protective glass, documentation, charger |  |  |
| 1.7 | **Multifunctional device**    Printing technology: laser  Print type: monochrome  Maximum print format: A4  Maximum resolution, dpi: not less than 600 x 1200  Maximum speed of monochrome printing, not less than: 18 p/m  Copy resolution, dpi: not less than 600 x 600  Maximum number of copies, not less than: 9 pcs  Scanner type: tablet  Optical scanner resolution: not less than 600 x 600  Number of print trays: 1  Supported paper sizes (main tray): A4, B5, LTR, LGL, EXE  Interfaces: USB 2.0  Noise level: up to 60 dB |  |  |
| 1.8 | **Multimedia projector**  Projection System: 3LCD Technology  Color Light Output: 7,000-5,600 Lumen (economy mode)  Resolution: WUXGA, 1920 x 1200, 16:10  High Definition: 4K enhancement  Aspect Ratio: 16:10  Contrast Ratio: 50,000:1  Native Contrast: 2,000:1  Lamp (portrait mode):400 Watt, 2,000 hours Durability  Interfaces: USB 2.0 Type A, USB 2.0 Type B (Service Only),RS -232C,  Wired Network, Wireless LAN IEEE 802.11a/b/g/n (optional), VGA in, VGA out, DVI in,BNC in, HDBaseT, Stereo mini jack audio out, Stereo  mini jack audio in (3x), HDMI (HDCP 2.2) |  |  |
| 1.9 | **Ceiling mount for projector**  Distance from the ceiling: 55-1500 mm;  Inclination: -15º +15º  Compatibility with the projector  Max load: 25 kg |  |  |
| 1.10 | **Document scanner**  Scanner type: camera-scanner  Maximum resolution: at least 1200x1200  Scanning speed: at least 20 pages per minute  Maximum scanned area: A3 format  Light source: built-in LED light |  |  |
| 1.11 | **Desktop computer with LCD screen**  Main Unit  Not less than  CPU: Intel 6-Core i5 9th Generation  RAM: 16 GB, DDR4  SSD capacity: 256 GB  HDD capacity: 4 TB  Graphics card: GeForce Radeon GT 1030  LCD screen:  Size: 21.5"  Type : IPS  Resolution: 1920 x 1080  Complete set must include: main unit, monitor, optical mouse (sensor resolution 1000 dpi), keyboard (Ukrainian/English layout), cables, documentation |  |  |
| 1.12 | **UPS**  Number of sockets: 8  Output power capacity: 405 W / 700 VA  Input voltage range: 180-260V  Surge protection and filtering |  |  |

**Lot 2. STEM equipment**

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| **#** | **Technical requirements (Features at least)** | **Conformity**  (Yes/No) | **Offered Brand, Model and Exact characteristics** |
| 2.1 | **STEM-kit with programmable electronic module and set of sensors for practical classes in biology, physics, chemistry and geography**  Complete set must include:  **Mobile platform with integrated manipulator – 1 pc**  Weight of the transported cargo: not less than 1 kg;  Continuous operation time: not less than 2 hours;  Number of mobility steps: not less than 3;  Built-in microcontroller with the following characteristics:  - microcontroller: ATmega328;  - USB-UART adapter (ATMega16u2);  - additional drivers not required;  The mobile platform with the integrated manipulator must include:  - batteries  - battery storage box  Battery requirements:  - type: Li-ion batteries with protection board  - nominal capacity: not less than 3200 mAh  Moving elements must be put in motion using servomotors  Servomotors must be controlled by the I2C protocol.  Interfaces for connecting additional devices: analog, digital, I2C, SPI.  **Microcontroller Arduino Uno – 2 pcs**  Type: ATmega328;  Adapter type: USB-UART adapter (ATMega16u2), installation of additional drivers not required;  Number of digital inputs / outputs: 14 (incl 6 PWM)  Number of analog inputs: 6  Flash program memory: not less than 32Kb  Operational memory: not less than 2Kb  Body material: acrylic body  **Educational shield – 1 pc**  Adapted to the S4A learning environment by using the S4A-compatible ports.  The educational shield must contain the following elements:  Color LEDs: green – 2; red color - 2, yellow - 1, blue – 1;  Photoresistive light sensor: 1  Clock buttons: 2  Piezzo buzzer: 1;  RGB LED: 1;  Number of servomotors connected simultaneously: 3  Accessible digital and analog ports of the controller.  **Battery – 2 pcs**  Type: Li-ion with protection board  Nominal capacity: not less than 3200 mAh  Maximum discharge current: not less than 4.8 A  Nominal voltage: not less than 3.6 V  Minimum voltage: not less than 2.75 V  Maximum voltage: not less than 4.2 V  Separate storage box: Yes  Battery chargers: Yes  **Battery compartment – 1 pc**  Compartment for two batteries (type Li-ion with protection board) with series connection and available power connector 2.1x5.5 mm  **Breadboard power supply module 5V/3.3V – 1 pc**  Input voltage: DC 6 ~ 15V  Output voltage to USB: 5V  Output voltage on contacts: 3.3V / 5V  Output current on USB: 500mA  Output current on contacts: 1A-5V / 800mA-3.3V  Overpadding protection  **Converter – 1 pc**  Converter type: step-down  Input voltage: 5-48 V  Output voltage: 0.5 - 40 V  Maximum load current: not less than 3 A  **Voltage step-down converter with regulation of current and voltage – 1 pc**  Type: step-down voltage converter with output current and voltage limitation without galvanic isolation  Conversion mode: asynchronous  Input voltage: 8-36 V  Output voltage: 1.25-32 V  Minimum difference between input and output voltages: no more than 0.3 V  Output current: adjustable, not less than 5 A  **Solar panel – 1 pc**  Operating voltage: not less than 5.5 V  Operating current: not less than 170 mA  **Solderless breadboard – 2 pcs**  Number of points: 400  Number of power connection lines: 2  Self-adhesive surface on the reverse side  **Set of breadboard jumper wires, type M-M – 40 pcs**  Length: 200mm  **Set of breadboard jumper wires, type F-M – 40 pcs**  Length: 200mm  **Set of breadboard jumper wires, type F-F – 40 pcs**  Length: 200mm  **Set of jumper wires for Arduino – 1 pc**  240mm – 5 pcs  200mm – 5 pcs  150mm – 8 pcs  110mm – 47pcs  **Infrared remote control and infrared receiver – 1 pc**  Maximum distance: not less than 8 m  Effective angle: at least 60 degrees  Number of control buttons: not less than 17  **16-button membrane keyboard – 1 pc**  Flex length: not less than 86 mm  Connector: 2.54mm pitch  Maximum voltage: not more than 35 V, 100 mA Insulation resistance: not less than 100 MOhm, 100 V Sharpness of contacts: not more than 5 msec  Lifetime: at least 1 million clicks  **Joystick – 1 pc**  Operating voltage: 5 V  Availability of X-axis control  Availability of Y-axis control  Button: Yes  **Set of buttons with cap – 1 pc**  Contact resistance: not less than 100 mОhm  Operating voltage: no more than 12V / 100 mA  Mounting method: surface  Lifetime: at least 100,000 times  Size: 12 mm  Number of buttons in the set: at least 5  Button caps of different colors  **Sensor module – 1 pc**  Number of channels: not less than 4  LED pressure indication is available  Operating voltage: 2.4 V ~ 5.5 V  **RFID module – 1 pc**  Supply voltage: not more than 3.3 V  Operating frequency: 13.56 MHz  Reading range: 0 ~ 60 mm  Interface: SPI, maximum transfer rate not less than 10Mbps  Reading and writing RFID tags  Includes: RFID module, access card, access keychain  **Real Time Clock module – 1 pc**  Thermal compensation and stride correction  Counter of seconds, minutes, hours, days of the week, months and years with a calendar with a correction of the leap year until 2100  Stability of the generator: ± 2 ppm in the temperature range from 0 ° C - + 40 ° C  Stability of the generator: ± 3,5 ppm in the temperature range from -40 ° C - + 85 ° C  Accuracy of internal digital temperature sensor ± 3 ° C  Clock accuracy correction register  Programmable output of rectangular pulses  2 alarm clocks with the possibility of adjustment  2 I2C bus modes: Standard (100kHz) and Fast (400kHz)  Operating supply voltage: from 3.0 V to 5.5 V  Battery included  **Relay module 5 V 10 A with optocoupler – 1 pc**  Maximum switching current of the relay: not less than 10 A at 250 V  Equipped with LED that indicates the current status of the relay contacts  **Encoder module – 1 pc**  Discreteness: at least 20 steps per rotation  **Slider variable resistor module – 1 pc**  Voltage: 3.3-5 V  Signal: analog  Resistance: not less than 10K  **Variable resistor – 2 pcs**  Nominal resistance: 10 kOhm  Max. voltage: 150 V AC  Nominal power: not less than 0.125 W  **Bluetooth module – 1 pc**  Communication protocol: Bluetooth Specification v2.0 + EDR  Frequency: GFSK  Sending power ≤4dBm, Class 2  Reception power ≤-84dBm at 0.1% BER  Asynchronous speed: 2.1Mbps (Max) / 160 kbps, Synchronous speed: 1Mbps / 1Mbps  Security authentication and encryption  Bluetooth serial port profile  Support for both slave and master mode  **Wi-fi module – 1 pc**  Protocol: WiFi 802.11 b / g / n  Support for STA / AP / STA + AP modes  Built-in TCP / IP protocol stack with support for multiple client connections (up to 5)  D0 ~ D8, SD1 ~ SD3: can be used as GPIO, PWM, IIC, etc.  Output current: 15 mA  AD0: 1 ADC output  Power supply: 4.5 - 9V (10V maximum)  USB power supply with debugging interface  Transmission speed: 110-460800 baud  Support for UART / GPIO data interfaces  Reflashing from the cloud or via USB  **Ethernet shield – 1 pc**  Operating voltage: 5 V  Connection speed: 10/100 Mbps  Compatible with 802.3 standard  Support for TCP, UDP, IPv4, ICMP, ARP, IGMP and PPPoE protocols  At least 16 Kbytes of internal data buffer  Interaction with the controller via the SPI interface  Integrated card reader: Yes  **MicroSD card 16GB Class 10 with adapter – 1 pc**  Fully complies with the standard SD 2.0  Compatible with card readers and devices that support MicroSDHC  Compatible with Secure Digital Music Initiative (SDMI)  Recording speed: at least 15 MB / sec  Read speed: at least 80 MB / sec  **Multimeter – 1 pc**  Display: LCD 50x20 mm  Power supply: Krona 9V battery, available in the set  Constant voltage (DC), V: 200m / 2000m / 20/200/1000  Alternating voltage (AC), V: 200/750 DC, A: 2000μ / 20m / 200m / 10  Resistance, Ohm: 2000K / 200K / 20K / 2000/200  Possibility of testing diodes, transistors  The multimeter has a built-in generator and a buzzer  **LED panel for visual indication of the output state of the microcontroller – 1 pc**  Supply voltage: 3.3-12 V  Number of LEDs: not less than 6 pcs  Type of indicators: common cathode  Number of PIN connectors: at least 7  **Schmitt Inverter Trigger 74HC14 – 1 pc**  Supply voltage: from 2V to 6V  Output load capacity: 10 LSTTL inputs  Static current consumption: 20 μA  Signal delay time: 11 μs  Output current: 4 mA at 5V  Input current: less than 1 μA  Housing type: DIP-14  **Shear register 74HC595N – 4 pcs**  Housing type: PDIP-16  RoHS: Yes  Technology: CMOS  Operating voltage (typical): 2.5 / 3.3 / 5V  Operating voltage (min.): 2V  Operating voltage (max.): 6V  Operating temperature range: -40 ... +85C  Number of pins: 16  **Set of resistors 0.25W – 1 pc**  10 Ω – 20pcs  22 Ω – 20pcs  47 Ω – 20pcs  100 Ω – 20pcs  150 Ω – 20pcs  200 Ω – 20pcs  220 Ω – 20pcs  270 Ω – 20pcs  330 Ω – 20pcs  470 Ω – 20pcs  510 Ω – 20pcs  680 Ω – 20pcs  1 kΩ – 20pcs  2 kΩ – 20pcs  2.2 kΩ – 20pcs  3.3 kΩ – 20pcs  4.7 kΩ – 20pcs  5.1 kΩ – 20pcs  6.8 kΩ – 20pcs  10 kΩ – 20pcs  20 kΩ – 20pcs  47 kΩ – 20pcs  51 kΩ – 20pcs  68 kΩ – 20pcs  100 kΩ – 20pcs  220 kΩ – 20pcs  300 kΩ – 20pcs  470 kΩ – 20pcs  680 kΩ – 20pcs  1 MΩ – 20pcs  **LCD display – 1 pc**  I2C interface  16 x 2 format  Power supply: not less than 5V  **OLED display – 1 pc**  Screen size: at least 0.96 "  Screen type: OLED  4-pin supply voltage: 3.3-6 V  Display resolution: at least 128 x 64  Availability of OLED module driver  Viewing angle: not less than 160 degrees  Availability of storage box  **Passive buzzer – 1 pc**  Power supply 3.3 - 5 V  **Buzzer – 1 pc**  Power supply 3.3 - 5 V  **LED matrix – 1 pc**  Supply voltage: 1.8-2.3 V  Array size: at least 8 x 8 points  The size of the matrix: 37 x 37 mm  Nominal pixel current: 20 mA  Output: anode  **Module of 4-point LED matrices – 1 pc**  Power supply: 5 V  Complete set:  8x8 LED matrix  Number of matrices: not less than 4  Soldered printed circuit board  MAX7219 chip  **10-segment 4-color progress bar – 1 pc**  10 LEDs in one housing, each with its own anode and cathode.  4 colors: 2 red, 3 yellow, 4 green and 1 blue  **7-segment 1-digit red LED indicator – 4 pcs**  RoHS: Yes  Digit height: not less than 0.56 inches  Output: cathode  **7-segment 4-digit LED indicator – 1 pc**  Separators: vertical colon and decimal points  Display type: 7-segment  Number of digits: not less than 4  Digit height: not less than 0.56 inches  Output: cathode  **Set of colored LEDs – 1 pc**  Red:  3 mm – not less than 10 pieces  5 mm – not less than 10 pieces  Yellow:  3 mm – not less than 10 pieces  5 mm – not less than 10 pieces  Green:  3 mm – not less than 10 pieces  5 mm – not less than 10 pieces  Blue:  3 mm – not less than 10 pieces  5 mm – not less than 10 pieces  White:  3 mm – not less than 10 pieces  5 mm – not less than 10 pieces  Rated current: 20 mA  **LED-light - 4 pcs**  RGB type  General cathode  Diameter - not less than 5 mm  The lens is matte  **Circle with LEDs – 1 pc**  Number of LEDs: not less than 12  Supply voltage: 4-7 V DC  LED type: RGB WS2812  Interface: Single-wire consecutive  **Servomotor – 1 pc**  Speed without load: 0.12 sec / 60 degrees when powered by 4.8V  Torque: 2 kg / cm  Temperature range: 0 to + 50'C  Dead zone width: 4 microseconds  Operating supply voltage: 3.5-5 V  Current consumption in motion: 50-80 mA  Current consumption in stand-by: 5-10 mA  Angle of rotation: 180 degrees  Dimensions: 3.3 cm x 3 cm x 1.3 cm  **Stepper motor – 1 pc**  Nominal supply voltage: 5 V (direct current)  Number of phases: 4  Number of strides: 64  Number of microstrides: 4096  Stride angle: 5.625 degrees  Nominal frequency: 100 Hz  Nominal resistance of coil (at 25 degrees): 50 Ohms  Peak current of one coil: 320 mA  Idling frequency (clockwise): 600 Hz  Idling frequency (counterclockwise): 1000 Hz  Torque (clockwise, at a frequency of 120 Hz): 34.3 N/m  Pull in torque: 343 g/cm  Electrical safety class: A  Noise level <40dB  **Stepper motor driver – 1 pc**  Compatibility with 5V and 12V unipolar motors.  Compatibility with standard Arduino Stepper library  Number of light diodes: 4 (1 per channel)  **Micro electric motor – 2 pcs**  Supply voltage: 3-6 V  Speed without load: at least 9000 ± 10% RPM  **Two-channel motor driver – 1 pc**  Power supply of motors: not less than 2.5 V - 15 V  Operating voltage: from 2.7 V to 5.5 V  Maximum motor current: 1.2 A (average) / 3.2 A (peak)  **Fan – 1 pc**  Engine type: brushless  Dimensions: not less than 30 x 30 x 10 mm  Nominal voltage: 5 V  Resource: at least 35,000 hours  **Universal sound sensor – 1 pc**  Analog voltage output from the microphone  Digital output of the threshold comparator  Comparator: Yes  Power indicator: Yes  Digital output status indicator: Yes  Operating voltage: 4 - 6 V  **Ultrasonic distance sensor – 1 pc**  Operating voltage 3.8 - 5.5 V  The maximum distance: not less than 1500 mm  The minimum distance: 0 cm  Resolution: not less than 3 mm  Pulse width: 10 μs  Angle: 15 degrees  Sensor mount: Yes  **Light sensor – 1 pc**  Sensitive element: photoresistor  Adjustment of a threshold of operation by the variable resistor  Operating voltage: from 3.3 V to 5 V  Comparator: Yes  Digital and analog outputs: Yes  **Infrared motion sensor – 1 pc**  Detection range: within at least 0-7 m  Angle of operation: not less than 110 ° at a distance of up to 7 m  Supply voltage: 4.5 - 12 V  Delay time is not worse than 0.3 - 300 seconds with the possibility of adjustment  Method of operation: repetitive and non-repetitive switching  **Infrared distance sensor – 1 pc**  Operating voltage: 4.5-5.5 V  Output signal type: analog  Average time for updating information for output: no more than 16.5 ms  Measuring distance: not less than 10 to 80 cm  **Interference sensor – 1 pc**  Obstacle detection distance: not worse than 2-30 cm  Operating voltage: 3.3 to 5 V  Comparator: Yes  **Line sensor – 2 pcs**  Supply voltage: 3.3-5 V  **Fire sensor module – 1 pc**  Definition wavelength: 760nm ~ 1100 m.  Operating voltage: 3.3 - 5 V  Comparator: Yes  Trigger angle: up to 60 degrees  Detection distance: not less than 80 cm  **Infrared thermo module – 1 pc**  Operating voltage: from 3V to 5V  Comparator: Yes  Range of the measured temperature: at least 20 to 80 ° C  Built-in digital output and supply voltage status indicator  Digital and analog outputs  **Color sensor – 1 pc**  Color determination distance: not less than 10 mm  Availability of high-quality conversion of light intensity into frequency  Availability of connection directly to the microcontroller  Operating voltage: 3 - 5 V  **RGB sensor and gesture sensor module – 1 pc**  RGBC light sensor, proximity and gesture detector with IR indicator in the optical module  Detection distance: not less than 100 mm  Sensitivity to different directions of movement  Measurement of the direction and speed of approach and gestures  Factory calibration  **Humidity and temperature sensor module – 1 pc**  Supply voltage: 3-5 V  Measuring humidity range: not worse than within 20-90% RH ± 5% (max.)  Measuring temperature range: not less than 0-50 ºC ± 2% (max.)  Comparator: Yes  **Soil moisture sensor (hygrometer) – 1 pc**  Measuring element: metallized probe  Comparator: Yes  Sensor outputs: digital and analog  Sensor supply voltage: 3.3 - 5 V  **Soil moisture sensor – 1 pc**  Humidity measurement method: capacitive  Output type: analog  Supply voltage: from 3.3 to 5.5 V  Output voltage: from 0 V to 3.0 V  **Temperature sensor – 1 pc**  Operating voltage: from 3 V to 5.5 V  Accuracy: ± 0.5 ° C in the range -10 ° C to + 85 ° C  Operating temperature range: from -55 to 125 ° C  Waterproof  Interface: 1-wire  Length of connecting wires: not less than 50 cm  **Thermistor – 1 pc**  Rated resistance: 100 Ohms (0 ° C)  Measured temperature range: -20 ° C to +500 ° C (+/- 2.5 ° C)  Accuracy: +/- 0.3 - 0.8 ° C (in the range 0-450 ° C)  Length of connecting wires: not less than 50 cm  Waterproof  **Barometer – 1 pc**  Supply voltage: 1.7-3.6 V  Calibration: factory calibration  Noise level: up to 0.2 Pa (1.7 cm) and 0.01 temperature  Measured pressure range: from 300 hPa to 1100 hPa (9000 m to - 500 m)  **Accelerometer and gyroscope module – 1 pc**  Power supply: 3 - 5 V  Gyroscope range: + 250 500 1000 2000 ° / s Accelerometer range: ± 2 ± 4 ± 8 ± 16 g  I2C protocol  **Current sensor with analog output – 1 pc**  Supply voltage: from 3 to 36 V  Measured current: from 0 A to 3 A  Direction of current measurement: bidirectional  **CO2 sensor module – 1 pc**  Module supply voltage: 5 V  Availability of digital and analog outputs  **Rain, moisture, snow sensor – 1 pc**  Power supply 3.3 - 5 V.  Sensitive module dimensions: not less than 60 mm x 39 mm  Comparator: Yes  **Liquid level sensor – 1 pc**  Operating voltage: 3 - 5 V  Operating current: less than 20 mA  Sensor type: analog  Detection area: not less than 40 mm x 16 mm  **Hall sensor module – 1 pc**  Sensor type: unipolar  Supply voltage: 4.5 - 24 V  **Heart rate sensor – 1 pc**  Supply voltage: 3 - 5 V  Wire length: not less than 180 mm  Wavelength (sensitivity peak): 565 nm  **Microwave motion sensor – 1 pc**  Supply voltage: 4 - 28 V  Detection range: not less than 5 m  Detection angle: not less than 120 degrees  Transmitter power: up to 30 mW (nominal up to 20 mW)  Delay time before trigger reset: 2 sec ± 30%  **Bend sensor – 1 pc**  Length: at least 2.2 inches (5.6 cm)  **Weight sensor (strain gauge) with control module – 1 pc**  Impedance: 1000 ± 50Ω  Recommended voltage: within 5-10 V  Maximum weight: not less than 2 kg  Complex error margin: no more than 0.2% FS  **Pressure sensor – 1 pc**  Sensitive diameter: not less than 1.2 cm  Resistance without pressure: more than 1 MО  Weight detection range: not less than 100 g to 10 kg  Width: 1.9 cm  **Impact sensor module – 1 pc**  Output type: contact tightened to the "+" power supply  Number of outputs: 3 ("+", "-", sensor output)  **Vibration sensor – 1 pc**  Supply voltage: from 3.3 to 5 V  Output: digital  Comparator: Yes  **Tilt and vibration sensor module – 1 pc**  Comparator: Yes  Operating voltage from 3.3 V to 5 V  Availability of digital output  **Sensor module of allotropic modification of oxygen (O3) – 1 pc**  Sensor type: semiconductor  Main registered gas: allotropic modification of oxygen (O3 - Ozone)  Gas concentration measurement range: 10-1000 ppm  Heater supply voltage: 5V DC or AC  Heater resistance: 31 Ohm  Heater power consumption: 900mW  Sensor resistance: 50-500 kOhm (at 50ppm O3)  **PH sensor – 1 pc**  Supply voltage: 3.3 ~ 5.5 V  Output voltage: 0 ~ 3.0 V  Signal connector: PH2.0-3P  Measurement accuracy: ± 0.1@25  Probe type: laboratory  Detection range: 0 ~ 14  Temperature range: 5 ~ 60°C  Zero point: 7 ± 0.5  Response time: <2 min  Internal Resistance: <250 MО  **GPRS/GSM + GPS module – 1 pc**  Operating bands: 850/900/1800/1900 MHz  GPRS mobile stations class: B  Operation: AT command (3GPP TS 27.007, 27.005 and SIMCOM improved AT commands)  Navigation: built-in GPS / CNSS with A-GPS support  Logic levels: from 3.0 V to 5.0 V  Consumption in sleep mode: less than 1 mA  Supported protocols: GPS NMEA  SIM card port: Micro SIM  Data transfer: GPRS multi-slot class 12, max. SPEED 85.6kbps  Supply voltage: from 5 V to 12 V  GSM antenna included  GPS antenna included  **Organizer for small details – 1 pc**  Material: plastic or wood  Number of compartments: at least 10  **Study guide on Scratch for Arduino programming fundamentals – 1 pc**  Language: Ukrainian  Each topic of the manual should contain theoretical and practical material.  Practical and / or laboratory works (not less than 2) are developed for each topic in accordance with one of the curricula for labor training, computer science, physics, chemistry, biology, mathematics, geography. Practical and / or laboratory work should include:  goal setting, problem statement, information and computer model, description of a computer experiment.  Contains description of the integrated educational project. |  |  |

**Lot 3. Video studio equipment**

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| **#** | **Technical requirements (Features at least)** | **Conformity**  (Yes/No) | **Offered Brand, Model and Exact characteristics** |
| 3.1 | **Holographic screen with rack and mounts**  Screen diagonal: not less than 27"  Rack and mounting material: metal  The rack should provide simultaneous fastening for holographic screen, multimedia short-focus projector, laptop  The rack must be equipped with wheels |  |  |
| 3.2 | **Multimedia projector**  Resolution: at least XGA (1024x768)  Brightness: not less than 3700 ANSI lm  Contrast: not less than 24000:1  Minimum projection distance: 0.54 meters  Lamp life: at least 7,000 hours in standard mode and at least 15,000 hours in economy mode.  Interface cable: not less than 10 meters  Speaker: not less than 10 Wt |  |  |
| 3.3 | **Contactless control system**  Type: Motion controller  Features: Recognition of fingers of two hands  Provides full control of the computer functions  USB 2.0 interface  OS: Windows 7/8, Mac OS X 10.7, Linux |  |  |
| 3.4 | **Camera with 2 interchangeable lenses**  Camera type: SLR camera, with interchangeable lens  Matrix type: CMOS (CMOS)  Matrix: not worse than APS-C (20.7x13.8 - 28.1x18.7 mm)  Number of megapixels: at least 24 Mpix  Continuous shooting, frames / sec: not less than 10  File format: JPEG, RAW  Focus distance: 15-45 mm  Lens aperture: f/3.5-6.3  Display (diagonal): not less than 3.0”  Maximum video resolution: 3840x2160 (4K)  Video quality: not worse than HDR  Frame rate: FullHD, 120 fps  Exposure: 30-1/4000 s, manual prolonged exposure  Memory card support: SD/SDHC/SDXC  Additional interfaces: Bluetooth, NFC, Wi-Fi  Lenses in the set: EF-M 15-45mm f/3.5-6.3; EF-M 55-200mm f/4.5-6.3 |  |  |
| 3.5 | **SD memory card**  Memory capacity: at least 64 GB  Speed ​​class (SD): not worse than UHS-I |  |  |
| 3.6 | **Camera tripod**  Head type: 3D  Removable head: None  Maximum shooting height: 161 cm  Number of sections: 3  Minimum shooting height: 64.5 cm  Maximum load: 3.5 kg |  |  |
| 3.7 | **Wall/ceiling mount system for 3 backgrounds**  Width: 2.72m  Mounting type: metal anchors |  |  |
| 3.8 | **Set of 3 paper backgrounds**  Color: White, Grey, Green  Material: Paper  Width: 2.72 m  Length: 11 m |  |  |
| 3.9 | **Set of constant diode light**  Number of softboxes: 2  Number of stands: 2  Number of 12W lamps: 8  Light power: 1200 W  Electric power: 96 W  Color temperature of lamps: 5500 K  Lamp life: 30,000 hours  Light type: diode  Power adjustment: yes  Minimum stand height: 0.8 m  Maximum stand height: 2.0 m  Tilt adjustment: yes |  |  |
| 3.10 | **Studio crane with rack for studio lamps**  Type: stand  Crossbar type: 2-section  Length of crossbeam: 121 - 211 cm  Diameter of the coupling: 1/4 "and 3/8"  Counterweight weight: 0.3 kg |  |  |
| 3.11 | **Light source (LED illuminator)**  Power: 60 W  Color rendering index (CRI): 93  Color temperature: 3200K  Power adjustment: Yes  Remote control: Yes  Bayonet standard: Bowens  Luminous power: 4100 Lm |  |  |
| 3.12 | **Deep reflector with Bowens bayonet**  The reflector creates a directed light flux with high contrast and clear boundaries.  Reflector material: temperature-proof metal  Diameter: at least 28 cm  Depth: at least 34.5  Bayonet: Bowens |  |  |
| 3.13 | **Wireless microphone system with 2 receivers and 2 lavalier microphones**  Wireless transmission: digital 2.4 GHz  Number of transmitters: 2 x bodypack with microphone  Max operating range: not less than 50 m  RF output power: 3 mW  Included cable connector: 1/8” / 3.5 mm TRS  Microphone form factor: lavalier  Polar pattern: omnidirectional  SNR: 84 dB |  |  |
| 3.14 | **Study materials on using multimedia and holographic technology in STEM**  Language: Ukrainian  Accredited for using in educational institutions |  |  |

**TABLE 3:** Financial offer for the supply of goods in accordance with the technical specification and

Requirements

**Lot No. 1. Computer and multimedia equipment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Product name and specification requirements** | **Quantity of units (pcs / pair)** | **Unit price, without VAT, currency** | **Total price, without VAT, currency** |
| 1.1 | All-in-one computer (monoblock) | 14 |  |  |
| 1.2 | Tablet | 18 |  |  |
| 1.3 | Laptop #1 | 32 |  |  |
| 1.4 | Laptop #2 | 18 |  |  |
| 1.5 | Microsoft Office 2019 with sticker | 18 |  |  |
| 1.6 | Smartphone | 20 |  |  |
| 1.7 | Multifunctional device | 28 |  |  |
| 1.8 | Multimedia projector | 1 |  |  |
| 1.9 | Ceiling mount for projector | 1 |  |  |
| 1.10 | Document scanner | 4 |  |  |
| 1.11 | Personal computer with LCD screen | 4 |  |  |
| 1.12 | UPS block | 4 |  |  |
|  | Cost of delivery | 1 |  |  |
| Total, without VAT, currency | | | |  |

**Lot No. 2. STEM equipment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Product name and specification requirements** | **Quantity of units (pcs / pair)** | **Unit price, without VAT, currency** | **Total price, without VAT, currency** |
| 2.1 | STEM-kit with programmable electronic module and set of sensors for practical classes in biology, physics, chemistry and geography | 20 |  |  |
|  | Cost of delivery | 1 |  |  |
| Total, without VAT, currency | | | |  |

**Lot No. 3. Video studio equipment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Product name and specification requirements** | **Quantity of units ( pcs / pair)** | **Unit price, without VAT, currency** | **Total price, without VAT, currency** |
| 3.1 | Holographic screen with rack and mounts | 2 |  |  |
| 3.2 | Multimedia projector | 2 |  |  |
| 3.3 | Contactless control system | 2 |  |  |
| 3.4 | Camera with 2 interchangeable lenses | 2 |  |  |
| 3.5 | SD memory card | 4 |  |  |
| 3.6 | Camera tripod | 4 |  |  |
| 3.7 | Wall/ceiling mount system for 3 backgrounds | 2 |  |  |
| 3.8 | Set of 3 paper backgrounds | 2 |  |  |
| 3.9 | Set of constant diode light | 2 |  |  |
| 3.10 | Studio crane with rack for studio lamps | 2 |  |  |
| 3.11 | Light source (LED illuminator) | 2 |  |  |
| 3.12 | Deep reflector with Bowens bayonet | 2 |  |  |
| 3.13 | Wireless microphone system with 2 receivers and 2 lavalier microphones | 2 |  |  |
| 3.14 | Study materials on using multimedia and holographic technology in STEM | 2 |  |  |
|  | Cost of delivery | 1 |  |  |
| Total, without VAT, currency | | | |  |

**TABLE 4: Offer to Comply with Other Conditions and Related Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **Other Information pertaining to our Quotation are as follows:** | **Your Responses** | | |
| ***Yes, we will comply*** | ***No, we cannot comply*** | ***If you cannot comply, pls. indicate counter proposal*** |
| Delivery time (Delivery of equipment must be carried out within **60 (sixty)** calendar days from PO/Contact signature date) |  |  |  |
| Compliance with technical requirements |  |  |  |
| Delivery terms:  DDP – 15, Stusa street, Kramatorsk, Donetsk oblast, 84300, Ukraine  DDP – 1, Miendielieieva street, Rubizhne, Luhansk oblast, 93000, Ukraine  DDP – 8, Yehorova street, Sievierodonetsk, Luhansk oblast, 93400, Ukraine  DDP – 52 Starovokzalna str., office 12, Dnipro, Territorial department of the Ministry of veterans in Dnipropetrovsk oblast  DDP – 3/14 Maidan Koroliova, 10014 Zhytomyr, Territorial department of the Ministry of veterans in Zhytomyr oblast |  |  |  |
| Products meet the required quality standards. |  |  |  |
| Warranty and After-Sales Requirements:  Not less than 12 months warranty service in Ukraine |  |  |  |
| Availability of warranty service in Ukraine |  |  |  |
| Validity of Quotation (min. 60 days) |  |  |  |
| All Provisions of the UNDP General Terms and Conditions. <https://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html> |  |  |  |

All other information that we have not provided automatically implies our full compliance with the requirements, terms and conditions of the RFQ.

*[Name and Signature of the Supplier’s Authorized Person]*

*[Designation]*

*[Date]*

1. *This serves as a guide to the Supplier in preparing the quotation and price schedule.*  [↑](#footnote-ref-1)
2. *Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes*  [↑](#footnote-ref-2)