

«APPROVED»
 Member of the Board – Vice-Rector
 for Science and Innovation
 "Abylkas Saginov Karaganda technical university" NJSC



A.D. Mekhtiev
 _____ 2025

List of goods, works and services planned for purchase for scientific research in 2025 within the framework of the state order

No.	Name	Characteristics (for equipment, it is permissible to indicate the model, brand, country and other information)	Justification for equipment procurement	Estimated cost	Procurement deadlines	Payment terms 50/50 %, 30/70 70/30% , 100% %,	Guarantees	Contacts
1	2	3	4	5	6	7	8	9
1	Apple MacBook Pro 14.2" Apple M4 (10C CPU/10C GPU), 16 GB, 512 GB, Silver, 2024 (MW2U3)	Apple MacBook Pro 14.2" Apple M4 (10C CPU/10C GPU), 16 GB, 512 GB, Silver, 2024 (MW2U3) • Display: 14.2-inch Liquid Retina XDR with a resolution of 3024×1964 pixels, ProMotion support with an	MacBook is available for purchase. Pro 14.2" Apple M4 (10C CPU/10C GPU), 16GB, 512GB, Black, 2024 (MW2U3), which includes the free	1,114,990	2025	50/50	12 months	

		<p>adaptive refresh rate of up to 120 Hz.</p> <ul style="list-style-type: none"> • Processor and graphics: Apple M4 chip with 10-core CPU (4 performance and 6 energy-efficient cores) and 10-core GPU. • RAM: 16 GB unified memory. • Storage: 512GB SSD. • Color: silver • Ports and connectors: Thunderbolt 4 (USB-C) ports with charging support, DisplayPort , Thunderbolt 4 (up to 40 Gbps) and USB 4 (up to 40 Gbps). <p>MagSafe 3 charging port .</p> <ul style="list-style-type: none"> • SDXC card slot. • HDMI port. • 3.5mm headphone jack. • Wireless capabilities: • Wi-Fi 6E (802.11ax). • Bluetooth 5.3. • Camera: 12 MP with Center function Stage and Desk View , support for 1080p HD video recording. • Audio: • Six-speaker audio system with support for spatial audio and Dolby Atmos . 	<p>WinCC app Sm@rtClient SIMATIC WinCC OA UI, which has the functions of SIMATIC WinCC V7.0.</p>					
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		<ul style="list-style-type: none"> • Studio-quality three-microphone array with directional beamforming. • Keyboard and trackpad: • Illuminated Magic Keyboard with 78 (US) or 79 (ISO) keys, including 12 full-size function keys and 4 inverted-T arrow keys. • Touch ID. • Force Touch trackpad . • Battery and power: • Up to 24 hours of video playback. • Up to 16 hours of wireless internet use. • 72.4 Wh lithium-polymer battery . • 70W USB-C Power Adapter. • Dimensions and weight: • Height: 1.55 cm. • Width: 31.26 cm. • Depth: 22.12 cm. • Weight: 1.55 kg. 						
2	TOMTOC Defender -A13 Case Black for MacBook 15, (A13E3)	<ul style="list-style-type: none"> • Compatibility: Designed for 15-inch laptops, including MacBook Pro 15”. • Material: Made of durable polyester to ensure durability and protection for your device. • Protection: Equipped with CornerArmor technology with 	Made of durable polyester for durability and protection of your device. CornerArmor technology with reinforced inserts on	18,505	2025	50/50	12 months	

		<p>reinforced inserts on the corners, which increases the protection of the device during drops and impacts.</p> <ul style="list-style-type: none"> • Interior Lining: Soft plush lining prevents scratches and damage to your laptop. • Additional Compartments : Features a front zippered pocket to store accessories such as a charger, cables or documents. • Dimensions: • External dimensions: 38 x 25.6 x 2.8 cm. • Internal dimensions of the laptop compartment: 35.7 x 24.6 x 1.7 cm. • Weight : About 340g. • Color: Black. 	<p>the corners, which increases the device's protection against drops and impacts.</p> <p>The soft plush lining prevents scratches and damage to your laptop.</p>					
3	TOMTOC Defender-A13 Case Dark Blue for MacBook 15, (A13E3)	<p>Compatibility: Designed for 15-inch laptops, including MacBook Pro 15”.</p> <ul style="list-style-type: none"> • Material: Made of durable polyester to ensure durability and protection for your device. • Protection: Equipped with CornerArmor technology with reinforced inserts on the corners, which increases the protection of the device during drops and impacts. 	<p>Made of durable polyester for durability and protection of your device.</p> <p>CornerArmor technology with reinforced inserts on the corners, which increases the device's protection</p>	18,505	2025	50/50	12 months	

		<ul style="list-style-type: none"> • Interior Lining: Soft plush lining prevents scratches and damage to your laptop. • Additional Compartments : Features a front zippered pocket to store accessories such as a charger, cables or documents. • Dimensions: • External dimensions: 38 x 25.6 x 2.8 cm. • Internal dimensions of the laptop compartment: 35.7 x 24.6 x 1.7 cm. • Weight : About 340g. • Color: Dark blue. 	against drops and impacts. The soft plush lining prevents scratches and damage to your laptop.					
4	Laptop	ASUS Vivobook 17 X1704VA (90NB10V2-M00CK0) Processor: Intel Core i7 Processor frequency, GHz: 1.7 Integrated graphics: Intel Iris Xe Graphics RAM, GB: 16 Solid-state drive: 1 TB SSD Screen diagonal, inches: 17.3		939 980	March-April	50/50	12 months	
5	Mouse	Defender Fame GM-516, White , Bluetooth , USB Sensor Type: Optical Sensor: Pixart P3325 Maximum resolution, dpi: 10000 Acceleration, g: 20 Power: Built-in battery		17,980	March-April	50/50	12 months	

6	Office paper	A4 format, density 80g/m2, 500 sheets per pack, CIE 146%, class C		130,000	March-April	50/50	12 months	
7	Projector	1827 Projector , Stationary projector. Specifications Product UID MR.JWK11.00P Manufacturer Acer Model : X1827 Type Stationary projector Technology Details : DLP Original resolution Details 3840 x 2160 (UltraHD 4K) Supported resolution Details : UHD (3840 x 2160) Aspect ratio Details : 4:3, 16:9 Light flux, lm Details : 4000 Number of lamps 1 Lamp power, WMore details : 240 Lamp life, hoursMore details : 5000 Lamp life, hours (in economy mode)More details : 12000 Video standardsMore detailsEDTV, PAL, SECAM, NTSC, HDTV, SDTVHorizontal scan frequencyMore details : 135 kHz Vertical scan frequencyMore details : 15 kHz Keystone correctionMore details V ±30°, H ±30°, Vertical, HorizontalProjection optionsMore detailsRear, front, ceiling mountContrastMore details 10000:1	Due to the resulting savings in the expense item "Scientific and organizational support" in the amount of 1,800,000 (one million eight hundred thousand) tenge, it is necessary to reallocate to the expense item "Acquisition of materials, equipment and (or) software" name "Projector" for a total of 1,797,000 (one million seven hundred ninety-seven thousand) tenge. "Acquisition of materials, equipment and (or) software" reallocate the saved funds to the acquisition of the name "Projector". Stefan K.B., who reported that for the development of an API service for exchanging data between expert system modules, it makes sense, at the	1,797,000	June - August	50/50	12 months	

		<p>ZoomMore details 2.0x Video Connectors More 1 x VGA input, 2 x HDMI input, Component input Audio Connectors More 1 x S/PDIF, 1 x Audio input (Mini jack), 1 x Audio output (Mini jack) Other connectors1 x USB (Type A)Built-in speakersMore details 1 x 10W Remote ControlMore details No FeaturesMore detailsHDR support, Built-in speakers Color used in design More details White AdditionalNoise level - 26 dB4K UHD supportHDR10 support1080p resolution at 240 Hz refresh rateISFccc calibrationKeystone correctionDimensions (W x H x D)31.3 x 11.3 x 24 cmPackage dimensions (W x H x D)39 x 34 x 16 cmProduct weight 3.1 kg Weight with packaging 4.3 kg Warranty period (months) More details 12</p>	current stage of development, to use free solutions.					
8	Laptop	<p>General information Product UID 81C38EA Manufacturer HP Model : Omen 16-wd0009ci operating system operating system Absent</p>	<p>Exsys software to develop software for expert system modules and a knowledge base Developer , or you can use free programming languages such as</p>	500 000	July-August	50/50	12 months	

		<p>Attention : Don't forget to buy an operating system</p> <p>CPU</p> <p>Processor : Intel Core i5</p> <p>Processor model : 13420H</p> <p>Processor frequency, GHz : 2.1</p> <p>Maximum processor frequency, GHz 4.6</p> <p>Number of cores : 8</p> <p>L3 Cache : 12 MB</p> <p>Video card</p> <p>Video card type</p> <p>Integrated graphics processor ,</p> <p>Discrete graphics card</p> <p>Integrated graphics : Intel UHD Graphics</p> <p>GPU series</p> <p>GeForce RTX 40 Series</p> <p>Discrete graphics card model</p> <p>GeForce RTX 4050</p> <p>Video memory capacity : 6 GB</p> <p>RAM</p> <p>RAM type : DDR5</p> <p>RAM capacity, GB</p> <p>16</p> <p>RAM frequency</p> <p>5200 MHz</p> <p>RAM Configuration : 2 x 8 GB</p> <p>Number of RAM slots : 2</p> <p>Data storage devices</p> <p>Hard drive : no HDD</p> <p>Solid state drive</p> <p>512 GB SSD</p> <p>M.2 slot for SSD</p>	<p>Java SE Development Kit, PHP, or SQL. These programming languages are compatible with major operating systems, independent of any specific DBMS, and standardized, making them ideal for achieving the project's goals. At the same time, one of the results of expert system development is the visualization of decisions. A powerful graphics card is also necessary for successful execution of planned results, so a laptop is required for this type of work.</p>					
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		<p>with PCIe interface (drive installed)</p> <p>Screen : Features</p> <p>IPS matrix , 144 Hz</p> <p>Screen diagonal, inches : 16.1</p> <p>Screen resolution</p> <p>1920 x 1080 Full HD</p> <p>Screen brightness, cd/m2 : 250</p> <p>Screen surface : Matte</p> <p>Nutrition</p> <p>Battery type</p> <p>Non-removable</p> <p>Battery capacity : 70 Wh</p> <p>Power adapter : 19.5 V, 230 W</p> <p>Interfaces</p> <p>Connectors :</p> <p>HDMI , RJ-45</p> <p>, microphone</p> <p>input/headphone output (combo)</p> <p>Number of USB 3.0/USB 3.2 Gen 1 ports : 3</p> <p>Number of USB Type-C1 connectors</p> <p>Network connections</p> <p>Communication tools</p> <p>Gigabit Ethernet (1000 Mbps) ,</p> <p>Wi - Fi (802.11 ac) ,</p> <p>Bluetooth</p> <p>Functions and Features</p> <p>Multimedia</p> <p>Webcam, Speakers, Microphone</p> <p>Finishing materials : Plastic</p> <p>Webcam Features</p>						
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		Physical shutter on the camera Keyboard Features Key backlight The color used in the design Black Additionally Bang & Olufsen audio system Two speakers Dimensions and weight Dimensions (W x H x D) 36.9 x 26 x 2.8 cm Weight, kg : 2.4 Package dimensions (W x H x D) 59 x 34 x 7 cm Weight with packaging : 4.2 kg Factory data Warranty period (months) : 12						
9	Казнерлеуші electrons microscope JEOL JCM-7000	Jeol JCM-7000 (Japan) Desktop Scanning Electron Microscope JEOL JCM-7000: - Magnification: from 10x to 100,000x; - Accelerating voltage: 5, 10, 15 kV ; Electron optics: - Electron gun with tungsten cathode; - Capacitor with permanent magnet and electromagnetic lens; - Objective electromagnetic lens; - 8-pole astigmatism compensation electromagnetic lens; - Scanning 2-level deflection coil;	тақырып бойынша zertteu жүргізу үшін , мақалалар zhazғанда қолдану үшін	31 156 598	February- April	50/50	12 months	

		<ul style="list-style-type: none"> - Electrical image shift (D=6mm); - 4-segment semiconductor detector reflected electron detector; - Secondary electron detector for the mode variable vacuum (UVD); - Play the image back scattered electrons; - Reproduction of images in secondary electrons; - Reproduction of the image obtained by mixing signals from backscattered and secondary electrons; <p>Air extraction system:</p> <ul style="list-style-type: none"> - Pumping control is fully automatic, electromagnetic valve method; - Vacuum control with Pirani sensor ; - Pumping time from atmospheric conditions to Workers: no more than 3 minutes <p>- Three vacuum modes:</p> <p>3-5 Pa (BSE mode)</p> <p>30 Pa (standard mode)</p> <p>50 Pa (charge removal mode)</p> <ul style="list-style-type: none"> - Motorized stage - Maximum sample diameter: 80 mm - Maximum sample height: 50 mm 						
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1 0	JEOL JCM-7000 microscopes ushin қажетті material gift	<p>Consumables for electronics microscope JEOL JCM-7000:</p> <ul style="list-style-type: none"> - Navigation system based on the optical image of the sample; Rotating sample holder; - Double-sided conductive carbon tape for mounting samples (Base material: non-woven fabric, surface: black adhesive containing carbon powder as a conductive filler) Wehnelt cylindrical electrode (for installation in an electron gun.); - Sample holder (32 * 10 x 10 pcs). 	JEOL JCM-7000 microscope zhumysy үшін қажет	24 171 300	February-April	50/50	12 months	
11	Energy dispersive spectrometer	<p>Energy Dispersive Spectrometer (EDS) for SEM JCM-7000:</p> <ul style="list-style-type: none"> - Silicon drift detector; - EDX connection kit included (Vacuum flange, wire set); - Active area not less than 30 mm²; - Energy resolution no worse than 129 eV (Mn Kα line); - The range of determined elements is not narrower than B(5) Cf (98); - Cooling system: Two-stage Peltier type; - Multichannel analyzer of at least 4,096 channels (2.5 eV/channel); of at least 60,000 imp./sec . - Qualitative analysis: Automatic and manual peak identification; 	JEOL JCM-7000 microscope zhumysy үшін қажет	26 999 952	February-April	50/50	12 months	

		- Quantitative analysis: without reference Elemental mapping: - Resolution: not less than 1024 × 768 pixels; - Maximum number of measured elements: not less than 30; - Mixing cards: at least 3 elements - Spectrum export format: BMP, TIFF, JPEG, EMSA, Text, Excel, Word, PDF.						
12	Conducting X-ray fluorescence and magnetic resonance analysis of prototypes	X-ray phase analysis (XPA) of test samples Preparation of samples for X-ray fluorescence analysis Taking and interpreting diffraction patterns Adjusting the diffractometer	Manganets LLP	11 500 000	сәуір-қыркүйек	50/50	12 months	
13	Lease of a production site and auxiliary equipment for the development of KVES smelting technology	Salaries of the staff of JSC "Manganets" Melting furnace and equipment Charge materials for smelting, kg Depreciation charges (building, transport)	TOO Manganets	12 000 000	сәуір-қыркүйек	50/50	12 months	
14	Into a vacuum pump	Type Vane-rotor Productivity, m3/hour 90 Power, kW 2.2 Maximum residual pressure, mbar 0.00001 Noise level, dB75 Purpose Industrial Series NVR Subseries 2NVR	Exogenous casting requires a vacuum	1 500 000	сәуір-қыркүйек	50/50	12 months	

		Model 2NVR-90D Oil content : Oily Weight, kg 100						
15	Complex modifiers	Titanium powder PT-Ch coarse fraction up to 500 microns Molybdenum powder grade MK Tungsten powder 99.99% grade PVC	for alloying castings	7 200 000	сәуір-қыркүйек	50/50	12 months	
16	Отқа төзімді материалдардың беріктігін анықтау құрылғысы	Refractory RUL/CIC 421 NETZSCH Temperature range: room temperature ... 1700°C Heating elements: 4 super-tantalum 1800 Heating and cooling rates: 0.01 K/min ... 5 K/min Sample holder: Al2O3 Load range: 1 N ... 1000 N (in increments from 1 N to 100 N) Maximum 0.5 N/mm2 depending on sample size range : 20,000 µm Δl resolution: 5 nm Temperature measurement: thermocouples (internal and external) Sample length: 50 mm Sample diameter: 50 mm Atmospheres: air, static c-DTA® Measuring System	Metallurgy Ondirisi үшін пештерді futerleude отқа төзімді материалдардың беріктігін анықтау қажет	15 000 000	сәуір-қыркүйек	50/50	12 months	
17	Measuring and computing complex for determining stresses in mine conditions	The Prognoz-L2 portable device for local impact hazard assessment , Engineer version (complete with charging station,	impact hazard monitoring device "Prognoz-L2"	1 2 500 000		50/50	12 months	

		<p>contact pads, 1 rod, and documentation)</p> <p>Dynamic range ~99 dB</p> <p>Frequency range: 1...30 kHz</p> <p>The weight of the device is 600 g</p> <p>Dimensions (LxWxD) - 226x90x45 mm</p> <p>The device's casing protection rating is IP65.</p> <p>Piezoceramic sensors AR2085-1000 surface-mounted type</p> <p>Axial sensitivity ($\pm 10\%$) – 1000 mV /g</p> <p>Relative transverse sensitivity < 5 %</p> <p>Operating temperature range: - 40...+ 125 °C</p> <p>Supply voltage - (15...30) V</p> <p>The material of the surface-mounted sensor body is titanium.</p> <p>The weight of the surface-mounted sensor (without cable) is 35 g.</p> <p>Piezoceramic sensors AR2085-1000 of the borehole type</p> <p>Axial sensitivity ($\pm 10\%$) – 1000 mV /g</p> <p>Relative transverse sensitivity < 5 %</p> <p>Operating temperature range: - 40...+ 125 °C</p> <p>Supply voltage - (15...30) V</p> <p>The sensor body material is duralumin</p>	<p>designed to record pulses of elastic vibrations, emitted during the process of irreversible deformation of rocks (the process of natural acoustic emission) and output to the Dplay measurement results in the form of intensity indicators acoustic emission and impact hazard criteria .</p>					
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		The weight of the borehole sensor is 245 g. Prognoz-L2View software						
18	Core sampler (rig for non-impact rotary drilling of roof rocks)	Rotary drilling rig MQT-130/3.2 Drilling diameter 50 mm Drilling depth 15 m	A core sampler is required for collecting rock samples.	1,776,062		50/50	12 months	
19	Uniaxial compression device	The PSN-0.16.10 device with equipment for determining deformation characteristics. The mechanical -hydraulic unit of the PSN-0.16.10 device with equipment for determining deformation characteristics. Flat stamp 75 mm. Flat stamp with spherical support 90 mm.	Determination of tensile strength tension/compression, as well as the deformation modulus, elastic modulus, contact deformation modulus , transverse deformation coefficient and other deformation characteristics of rocky and semi-rocky soils by the method of destruction of samples of irregular and given shape by counter spherical indenters, as well as flat stamps	3 5 00 000		50/50	12 months	
20	Diamond crowns, 15 pieces	Segment diamond core drill bits , 15 pieces, drilling diameter 50 mm	Diamond core bits are required for core drilling operations.	750 000		50/50	12 months	
21	PhpStorm 2021.0.14 software	A cross-platform integrated development environment for PHP, developed by JetBrains	The need for licensed software for programming, debugging and testing web applications	500 000	April - May	50/50	12 months	

22	HP Server HPE ProLiant DL360 Gen10 4208 2.1GHz 8-core 1P 16GB-R P408i-a 8SFF 500W PS Server + HPE 1.8TB SAS 12G 10K SFF	ProLiant DL360 Gen10 high-performance computing server with an Intel Xeon Silver 4208 2.1GHz processor, 8 cores, 16GB of RAM, P408i-a RAID controller, 8 SFF drive slots, 500W power supply, and an HPE 1.8TB SAS 12G 10K SFF drive.	Mission-critical hardware for processing large volumes of data, cloud computing, virtualization, and hosting complex, high-load information systems. It enables simultaneous analytics , modeling, and machine learning, ensuring the smooth operation of applications and databases with high fault tolerance and data protection.	4 500 000	April - June	50/50	12 months	
2 3	UTM-500 Rock Soil Testing System for Uniaxial Compressive Modulus Determination Complete	Basic specification: The system includes integrated equipment for testing rock specimens under uniaxial compression (sets of 54.7 mm diameter plates) and equipment for determining rock deformation characteristics using the contact method with direct measurement of axial and diametrical deformation of the specimen. This easy-to-use rock testing system features a servo-hydraulic system with servo control , implementing uniaxial compression testing with automatic load or strain control. Simple software allows the user to	The UTM-500 system is required for studies to determine the elastic modulus, deformation, and strength properties of rocks under uniaxial compression to prepare initial data for numerical modeling of the stress-strain state of the rock mass. The system is designed to determine the strength and deformation properties of rocks under uniaxial	36 900 000	within 24 working weeks from the date of receipt of the advance payment.	50/50	12 months	

		<p>pre-program all test parameters and requires no operator intervention during the testing phase. All key components—the load frame, controller, and hydraulic pump—are integrated into a single housing. The load frame includes and provides the following features:</p> <ul style="list-style-type: none"> -Stroke 50 mm (2 inches). -Static compressive load 500 kN. - Strain sensor, range 50 mm, accuracy 0.05%. -The distance between columns is 24 cm. -Vertical working area up to 55 cm (maximum distance for installing equipment and sample). -Four columns. -Hydraulic control column includes a pressure control solenoid with on/high modes and an accumulator to minimize pressure pulsation. -High frequency proportional valve. -Integrated hydraulic pump station. -Mounted on a rigid base (mobile base, fixed during final installation). -The weight of the system with equipment is approximately 500 kg. 	<p>compression with a load of up to 500 kN.</p>					
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		<ul style="list-style-type: none"> - Overall dimensions (depth, width, height): 66 cm x 95 cm x 213 cm. -Power supply 220 V, 50 Hz, 15 A, 1 phase. <p>kip) load cell is a low-profile, precision, general-purpose load cell.</p> <ul style="list-style-type: none"> - Accuracy 0.25%. -Load +/- 500 kN <p>A set of attachments for monitoring sample deformation, including:</p> <ul style="list-style-type: none"> -Three strain gauges, +/- 4mm (8mm) stroke, linearity 1% FS -Maximum sample diameter 54.7 mm. -Working core diameter from 25 mm to 54.7 mm. - Includes two mounting rings with spring-loaded screws and guide pins for installing axial strain gauges (the gauges are mounted diametrically opposite at an angle of 180 degrees, two strain gauges are used to account for rock heterogeneity) and a high-precision chain with block for installing a radial deformation sensor. <p>Set of compression plates RKU-PLAT-NX</p> <ul style="list-style-type: none"> - Upper and lower plates for samples with a diameter of 54.7 mm. 						
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		<p>-Each plate is made of hardened stainless steel (RC 58-60). Cable set CBL-SET1</p> <p>- Complete set of cables for SCON controller and sensors. Integrated single-channel servo controller SCON-ST</p> <p>Microprocessor-based digital servo controller , function generator, data acquisition, and digital I/O unit. Advanced servo control with real-time data transfer switching between connected units.</p> <p>converters (sensors, control channel). Includes and provides:</p> <p>-24-bit resolution.</p> <p>-Four (4) ADC channels with excitation, simultaneous sampling, internal filtering and adjustable input range (DC and SG sensor types)</p> <p>-Four (4) ADC channels with a fixed range of ± 10 VDC.</p> <p>-(1) Servo proportional control output with ± 10V output signal or ± 100mA current output.</p> <p>-TCP/IP communications.</p> <p>-Waterproof keyboard screen for control.</p> <p>-Power supply: 24VDC, 5A.</p> <p>APP-UNC Integrated Software</p> <p>- An easy-to-use uniaxial rock testing application with a graphical user interface that</p>						
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		allows you to enter specimen geometry data and calculate Young's modulus, Poisson's ratio, and uniaxial compressive strength.						
2 4	Electric generator Eurolux G4000A / 3kW / 220V 64/1/38	Nominal power: 3 kW Network voltage: 220 V Starting system type: recoil starter Number of engine strokes: 4 type : gasoline Automatic start included (ATS): no class : household Fuel tank capacity: 15 l Battery included : no Net weight: 38.36 kg Generator type : synchronous Availability of wheels: no Availability of oil sensor: yes level indicator : yes Noise level: 68 dB Number of sockets (16A/220V): 1 Cooling type: forced class : IP 23 Max. number of revolutions: 3600 rpm Oil sump capacity: 0.6 l Fuel consumption (at 80% rated power load): 1.3 l/h Availability of automatic start system: no Presence of noise-proof casing: no	The project's implementation requires the acquisition of consumables for the construction of a test rig, processing of pump components, and prototype manufacturing. These include biological and mineral hydraulic oils with various parameters, homogenates , and a generator. Various types of oils and homogenates (royal jelly) are necessary to confirm the hypothesis of the feasibility of pumping liquids of any viscosity.	109 397		50/50	12 months	

		Dimensions without packaging (L x W x H): 610 x 440 x 440 mm						
25	Rimula R4X 15w 40 Mineral Oil	Shell oil Rimula R4 Multi is designed to maintain engine and oil performance throughout its lifespan. This reduces maintenance costs and improves engine reliability. Shell Rimula R4 Multi is suitable for use in most heavy-duty on- and off-road engines.		5*46,000=230,000		50/50	12 months	
26	Hydraulic oil VMGZ (50l)	Hydraulic oil VMGZ (-60) is an all-season oil produced on the basis of low-viscosity , low-pour point base oils and a composition of additives.		2*31,544=63,088		50/50	12 months	
27	Natural royal jelly (10 g)	A homogeneous, opaque, creamy mass. Colour: White with a yellowish tint or slightly creamy .		170*6,000=1,020,000		50/50	12 months	
28	Automatic control system	Tilt sensors NI I82P-4P12-P-33-C, pressure sensors, interface units BC N2-2R-AR-DC24, power supplies BP2.8-15V DC, touch buttons KD-22ESH-3PA-GR.	The automation kit for elevator control is designed for automated monitoring and control of the movement of a passenger pneumatic lift , ensuring its safe and stable operation.	5*488 396 = 2,441,980	June 2025	50/50	12 months	
29	Elevator shaft bumper made of integral polyurethane foam	Elevator shaft bumper made of integral polyurethane foam,	Elevator shaft bumper made of integral polyurethane foam	2*23,200=46,400	May 2025	50/50	12 months	

30	Polyurethane wheel	AV 50x40x9K-B polyurethane wheel, steel base, diameter – 50 mm Width – 40 mm, 40 pcs ;	Guides for the shaft	60*20,000=1,200,000	July 2025	50/50	12 months	
3 1	Polyurethane wheel	GRS 50X25/12-10K-B polyurethane wheel, steel base , diameter – 50 mm	Guides for the shaft	20*17 100=342,000	July 2025	50/50	12 months	
32	Cyclone IV EP4CE6E22C8N Development Board	FPGA Cyclone IV EP4CE6E22C8N, 64 MB SDRAM	Used to implement and test convolutional code decoding algorithms	6*46 290=277,740	May 2025	50/50	12 months	
33	STM32F103C8T6 debug board	ARM Cortex-M3 microcontroller, 64 KB of flash memory	It is used in software and hardware implementation of algorithms	20*3 500=70,000	May 2025	50/50	12 months	
34	Arduino MKR Vidor 4000 board	Intel FPGA Cyclone 10, SAMD21 Cortex-M0+	Provides a hybrid environment for working with FPGAs and RF signals	8*68 540=548 320	May 2025	50/50	12 months	
35	Digital oscilloscope Rigol DS1054Z	50 MHz, 4 channels, 1 GS/s	It is used for signal analysis and testing of processing algorithms.	4*375 185=1,500,740	May 2025	50/50	12 months	
36	USB Blaster Programmer Altera CPLD/FPGA	USB interface, Altera compatible	Used for programming FPGA devices	10*1 730=17,300	May 2025	50/50	12 months	
37	Radio Channel Fading Simulation Kit	Signal generator + fading modulator	Creates conditions for testing algorithms in real radio channels	4*300,000=1,200,000	May 2025	50/50	12 months	
38	Additional accessories (cables, connectors, power supplies, antennas)	A set of cables, connectors, power supplies	To connect and operate the equipment	61,770	May 2025	50/50	12 months	
39	Filling the knowledge base	Processing categorical and numerical features of mine working parameters, normalizing	AP19680292 "Development of an expert decision-	3 000 000	May 2025	50/50	12 months	

		them, and preparing CSV files for use in machine learning models and an expert decision-making system for supporting and maintaining mine workings. Using One-Hot preprocessing methods Encoding and Ordinal Encoding , Min-Max Scaling , Robust Scaling , Z- score Standardization , Python programming language (Pandas , NumPy , Scikit-learn), R, PostgreSQL and visualization tools (Matplotlib , Seaborn).	making system for the support and maintenance of mine workings" (contract No. 319/23-25 dated August 3, 2023)					
40	Service	Conducting technological support for smelting at the production site	Technological support for smelting using briquettes made from highly dispersed dust from ferrosilicon production	6 700 000	until the end of June	50/50	12 months	
41	Ash content meter	Zolar , Russia, Krasnoyarsk	To develop a new technology for nuclear geophysical testing of coals using spectrometry of natural gamma radiation of natural radioactive elements (U238, Th232, K40) with selective consideration of the specific activity of each radionuclide based on the interpretative and	1,898,000 rubles		50/50	12 months	

			algorithmic justification of complex gamma spectrometric measurements, ensuring high sensitivity of coal quality assessment in large masses.					
42	Content creation, digital platform testing, technical support during the pilot phase		implementation of the schedule	2 600 000	June 2025	50/50	12 months	
4 3	Valuation of exclusive intellectual property rights and preparation of a licensing agreement	National Institute of Intellectual Property	The main goal of this service is to provide a professional assessment of the value of intellectual property rights and the preparation of a legally sound licensing agreement, which allows the parties to ensure the legality of the transaction and effectively manage intellectual property rights.	2,000,000		50/50	12 months	
44	Manufacturing of injection anchor	Breaking load, kN - 110; Tensile strength, N/mm2 - 400; External diameter, mm - 22; Internal diameter , mm - 12; Thread at the end of the anchor, mm - 200/600	Practical implementation of the proposed developments with the aim of introducing	1 500 000	October 2025	50/50	12 months	

		Length of the sealant , mm - 250; Working pressure, bar* -200; Maximum pressure, bar* -250; Membrane response at, bar -60	them into industrial enterprises.					
45	Manufacturing of a pressure rope anchor	Breaking load, kN - 110; Tensile strength, N/mm2 - 400; External diameter, mm - 22; Internal diameter , mm - 12; Thread at the end of the anchor, mm - 200/600 Length of the sealant , mm - 250; Working pressure, bar* -200; Maximum pressure, bar* -250; Membrane response at, bar -60	Practical implementation of the proposed developments with the aim of introducing them into industrial enterprises.	1 800 000	October 2025	50/50	12 months	
46	Manufacturing of a pressure tube	Breaking load, kN - 110; Tensile strength, N/mm2 - 400; External diameter, mm - 22; Internal diameter , mm - 12; Thread at the end of the anchor, mm - 200/600 Length of the sealant , mm - 250; Working pressure, bar* -200; Maximum pressure, bar* -250; Membrane response at, bar -60	Practical implementation of the proposed developments with the aim of introducing them into industrial enterprises.	750 000	October 2025	50/50	12 months	
47	Manufacturing of shaft and cabin housings	Mine and cabin housings with installation at the operating site	Mine and cabin housings with installation at the operating site	5,000,000	September 2025	50/50	12 months	
48	Service: Manufacturing and installation of pylons and marks (reference points fixed on the ground for a long time) in the amount of 5 pieces	The monitoring pylon is a reinforced concrete pillar embedded below the frost line (at least 1.5 m). The middle section of the pylon is reinforced with a concrete frame at ground level. The upper section is protected by a plastic pipe to prevent the effects of temperature factors. A	Monitoring pylons are necessary for creating permanent monitoring points for a hydraulic structure (the Sherubay-Nura Reservoir embankment). They ensure high accuracy of geodetic	4 000 000	3 months	50/50	12 months	

		150 mm diameter, 10 mm thick metal plate with a welded 5/8" threaded bolt for attaching surveying instruments is installed at the top. The diameter of the frame reinforcement is 10 mm. The operating temperature range is from -40°C to +50°C.	measurements, minimizing errors caused by seasonal temperature fluctuations and soil deformations. The use of this design improves operational safety and complies with regulatory requirements in the fields of mine surveying and geotechnical engineering.					
49	Service: Acquisition of current images and analysis of high-precision satellite radar images of the territory of a hydraulic structure in quantity of 14 pieces	The required accuracy of spatial resolution of satellite radar images is 10 meters/pixel or more.	The acquisition and analysis of up-to-date high-precision radar images is necessary for comprehensive area monitoring of the hydraulic structure's condition.	4 560 000	6 months	50/50	12 months	
50	Benchtop lathe	processing diameter over the machine , not less than 80 mm length of the workpiece, not less than 300 mm machining diameter above the support, not less than 120 mm	The device will be used for sample preparation for mechanical testing, dilatometer testing and	796 000	April-May 2025	50/50	12 months	

		carriage stroke, not less than 75 mm quill stroke, not less than 60 mm required voltage 220V spindle speed 15-2500 rpm	will be installed in the ILIP "KORMS"					
51	Laptop Lenovo LOQ 15IRX9, Core i7-13650HX/15.6"WQHD/24GB/1TB/GF RTX4060 8GB/LAN/DOS	Product ID: 83DV00YMRK, Manufacturer: Lenovo Model - LOQ 15IRX9, Operating System - None Processor - Intel Core i7, Processor Model - 13650HX Processor frequency, GHz - 2.6 Maximum processor frequency, GHz - 4.9 Number of cores – 14, L3 cache – 24 MB Video card type: Integrated graphics, Discrete graphics card Integrated graphics - Intel UHD Graphics GPU Series - GeForce RTX 40 Series Discrete graphics card model - GeForce RTX 4060 Video memory capacity - 8 GB, RAM type - DDR5 RAM capacity, GB - 24, RAM frequency - 4800 MHz RAM configuration - 2 x 12 GB Number of RAM slots - 2 Maximum RAM: 32GB Hard Drive - No HDD, Solid State Drive - 1 TB SSD	A laptop is required for working with modeling programs used in mining, as well as for working with programs for processing acoustic sounding.	679 990	until November 15, 2025	50/50	12 months	

		<p>M.2 slot for SSD - with PCIe interface (drive installed), with PCIe interface (free)</p> <p>Features - IPS matrix, 165 Hz, Screen diagonal, inch -15.6</p> <p>Screen resolution - 2560 x 1440 QHD, Screen brightness, cd/m2 - 350</p> <p>Screen surface - Matte</p> <p>Battery type: Lithium-ion (Li-Ion), Non-removable</p> <p>Battery capacity - 60 Wh , Power adapter - 20 V, 230 W</p> <p>Connectors: HDMI, RJ-45, microphone input/headphone output (combo), Number of USB 3.0/USB 3.2 Gen 1-3 connectors</p> <p>Number of USB Type-C connectors: 1</p> <p>Communications - Gigabit Ethernet (1000 Mbit/s), Wi-Fi (802.11ax), Bluetooth , Bluetooth version - 5.2</p> <p>Multimedia - Webcam, Speakers, Microphone</p> <p>Finishing materials - Plastic</p> <p>Webcam Features - Camera On/Off Switch, 1080p FHD Resolution</p> <p>Keyboard Features - Numeric Keypad, Backlit Keys</p> <p>The color used in the design is Gray</p> <p>Additionally - 2 speakers with a power of 2 W</p> <p>Bidirectional microphone</p>						
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		Artificial Intelligence Chip: LA1 TÜV Rheinland Low Blue Light Certification HDMI 2.1 supports resolutions up to 8K at 60Hz The USB Type -C connector supports Power Delivery 140W , Display Port 1.4 Dimensions (W x H x D) - 35.9 x 25.8 x 2.3 cm , Weight, kg - 2.4 Package dimensions (W x H x D) - 54 x 35.5 x 8.5 cm Weight with packaging - 3.8 kg						
5 2	operating system	Microsoft Windows 11 Professional, 64bit, Russian 1pk DSP, Kazakhstan Only DVD, OEI	The operating system is required to operate the laptop and to run mining simulation programs, as well as acoustic sounding processing programs.	98 990	until Novembe r 15, 2025	50/50	12 months	
53	Laptop bag	15.6" Tucano BSLOOP15-BK, Gray	A laptop bag is essential for convenient and mobile work with a laptop.	14 030	until Novembe r 15, 2025	50/50	12 months	
54	Laptop mouse	Logitech M190, Gray, Wireless, Optical, 1000dpi, 1 x AA, USB	A laptop mouse is required for working on a laptop and working with modeling programs used in mining, as well as for working with programs for processing acoustic sounding.	6 990	until Novembe r 15, 2025	50/50	12 months	

5 5	Xerox paper	A4 SVETOCOPY	Paper is necessary for working with documentation within the project.	48 100	until November 15, 2025	50/50	12 months	
56	Clamp	19 mm black	Paper is necessary for working with documentation within the project.	1 900	until November 15, 2025	50/50	12 months	
57	Creation of an information system for "Calculation of fares for travel on existing socially significant inter-district (intercity intra-regional) routes of the Karaganda agglomeration"	The information system (IS) "Calculation of fares for travel on existing socially significant inter-district (intercity intra-regional) routes of the Karaganda agglomeration" must calculate fares for travel on existing socially significant inter-district (intercity intra-regional) routes, including those covering the Karaganda agglomeration, in accordance with the approved Methodology for calculating fares for the provision of services for the transportation of passengers and baggage on regular routes dated October 13, 2011, No. 614. of the Karaganda agglomeration must be entered into the IS "Calculation of fares for travel on existing socially significant inter-district (intercity intra-regional) routes of the Karaganda agglomeration", as well as, in accordance with the approved Methodology, ready-made calculations of fares for travel on		4 500 000		50/50	12 months	

		<p>all existing socially significant inter-district (intercity intra-regional) routes of the Karaganda agglomeration.</p> <p>The information system “Calculation of fares for travel on existing socially significant inter-district (intercity intra-regional) routes of the Karaganda agglomeration” should include the following functional capabilities: web interface hosted in a cloud service;</p> <ul style="list-style-type: none"> - multi-user mode and administration system. - total annual mileage of buses servicing the route; - costs of motor fuel; - costs of lubricants; - costs of repairs and maintenance; - operating costs for tires based on the annual mileage of buses on the route; number of wheels on the bus; operating mileage standard for tires; coefficient of adjustment of operating mileage standards for tires; - the annual amount of depreciation charges for buses assigned to the route, calculated based on their total mileage; - the total annual salary of drivers and conductors for servicing the route; 						
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		<ul style="list-style-type: none"> - standard amount of overhead costs; - costs taking into account the services of bus stations, bus terminals and passenger service points; - total annual volume of passenger transportation per route; - the calculated tariff separately for each route on the current socially significant inter-district (intercity intra-regional) routes of the Karaganda agglomeration, etc. 						
58	Creation of an information system "Determining the intensity of traffic flow on the roads of the Karaganda agglomeration depending on changes in the intensity of traffic flows"	<p>The information system (IS) "Determining the intensity of traffic flow on the roads of the Karaganda agglomeration depending on changes in the intensity of traffic flows" should allow for the study of all patterns of development of the transport system of the Karaganda agglomeration, taking into account the changes that arise in the system with forecasting for the future - depending on changes in various objects of the agglomeration, namely, from the growth or decline in the indicators of industrial enterprises or commercial enterprises, etc. and their impact on the transport system of the Karaganda agglomeration as a whole.</p>		9 016 000		50/50	12 months	

		<p>All the roads of the Karaganda agglomeration under study should be included in the IS</p> <p>“Determination of the traffic flow intensity on the roads of the Karaganda agglomeration depending on the change in the traffic flow intensity”.</p> <p>The information system should determine the traffic intensity on the roads of the Karaganda agglomeration, including the following main settlements: the city of Karaganda; the city of Temirtau, the settlement of Aktau, the city of Saran, the settlement of Aktas , the city of Shakhtinsk, the settlement of Shakhan, the settlement of Dolinka, the city of Abay; the settlement of Karabas; the settlement of Topar , etc.</p> <p>The information system should utilize modern data analysis methods, including machine learning and artificial intelligence, to process large volumes of information from various sources. It should not only capture the current state of the transportation system but also identify hidden patterns that could impact its development. The software should visualize data in the form of maps and graphs, simplifying analysis and decision-making, and enable</p>						
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		<p>modeling of various agglomeration development scenarios, assessing their impact on the transportation system. The information system "Determining Traffic Flow Intensity on the Roads of the Karaganda Agglomeration Depending on Changes in Traffic Intensity" should include the following functionality:</p> <ul style="list-style-type: none"> - selection of the studied directions of transport flows of the Karaganda agglomeration; - obtaining all the main characteristics of the traffic flow (distance, average speed, duration taking into account traffic jams, traffic delays) with the display of an interactive map of the selected direction; - using a database to store the values of traffic flow characteristics received in real time; - modeling and visualization of traffic flow intensity with the ability to change road conditions (traffic light times, number of lanes, roundabouts, speeds on road sections, interchanges, bridges, etc.) to determine the optimal solution; - traffic flow analysis with the ability to predict all the main 						
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		<p>characteristics of traffic and changes in road conditions (traffic light times, number of lanes, roundabouts, speeds on road sections, interchanges, bridges, etc.);</p> <ul style="list-style-type: none"> - analysis of the urban area under study using heat maps and other visualization tools; - web interface hosted in a cloud service; - multi-user mode and administration system. 						
59	<p>Experimental - estimate of the error due to the heterogeneity of coals (selection error):</p> <ul style="list-style-type: none"> - selection of point (primary) samples weighing 9 kg; - determination of heavy element content with sample preparation 	<p>Experimental assessment of error due to coal heterogeneity (sampling error); radiochemical (nuclear-physical) determination of uranium, thorium and potassium-40; determination of coal ash content.</p>	<p>Estimation of error due to heterogeneity of coals, obtaining data on the concentration of radionuclides (U^{238}, Th^{232} and K^{40}) in prepared coal samples and ash and slag waste using gamma spectrometric and nuclear-physical methods, determination of ash content of coal</p>	522,000	June 2025	50/50	12 months	
60	<p>Radiochemical (nuclear-physical) determination of uranium, thorium and potassium-40</p>	<p>Radiochemical (nuclear-physical) determination of uranium, thorium and potassium-40 by the neutron activation method (at the WWR-K nuclear reactor by the relative method for short-lived radionuclides and long-lived radionuclides), gamma-</p>	<p>Obtaining data on the concentration of radionuclides (U^{238}, Th^{232} and K^{40}) and rare earth elements in prepared samples of size (~5 mm) and different ash content.</p>	3,125,000	June 2025	50/50	12 months	

		spectrometric method (spectrometers with coaxial semiconductor detectors of high-purity germanium (SPD HPG) GEM40P4-83, ORTEC and GC2018, CANBERRA.)						
61	Determination of ash content of coal	Calculated data on the correlation between the ash content of the sampled coal and the specific activity of radionuclides.	Selection of an interpretation algorithm that increases the unambiguity of gamma-spectrometric measurements in conditions of a variety of radiogeochemical and petrophysical characteristics of the analyzed coals.	720,000	June 2025	50/50	12 months	
62	deflection meter PSK-MG4.01	<p>The range of deflection meter readings , mm 0...9999</p> <p>Linear displacement measurement range, mm0...200</p> <p>Limits of absolute error in displacement measurements, mm, in the range: – from 0 to 10 mm \pm 0.05</p> <p>– over 10 to 100 mm \pm 0.1</p> <p>– over 100 to 200 mm? \pm 0.5</p> <p>Unit price of the smallest digit, mm, in the range: - from 0 to 999 mm 0.01</p> <p>– over 999 to 9999 mm</p>	digital deflection meter is recommended for purchase due to the need to improve the accuracy and efficiency of structural deformation and deflection measurements during technical inspections and testing. This instrument offers high accuracy (up to 0.01 mm), digital display, autonomous	1,009,200	until November 15, 2025	50/50	12 month	

		<p>0.1</p> <p>Nominal value of string diameter, mm 0.25 - 0.6</p> <p>The range of string diameter values, mm, is no more than 0.01</p> <p>Leading block diameter, mm 19.2 ± 0.5</p> <p>Tension load weight, kg 1 ± 0.05</p> <p>Modes: Operational, Observation, Waiting</p> <p>The volume of archived information, values 4000</p> <p>Overall dimensions (L x W x H), mm, no more than – - electronic unit 155 x 80 x 70 - electronic unit with clamp 310 x 110 x 120</p> <p>Supply voltage, V 3.7 V (Li-Polymer)</p> <p>Network adapter / USB port</p> <p>Power consumption, mW, no more than: 25</p> <p>Weight, kg, no more than 0.75</p>	<p>operation in the field, and the ability to transfer data to a PC, significantly increasing the reliability and efficiency of measurements. Use of the PSK-MG4.01 complies with regulatory requirements and is essential for ensuring the quality of inspection and diagnostic work.</p>					
63	Case for digital deflection meters PSK-MG4 and PSK-MG4.01	<p>Manufacturer: SKB Stroy Pribor</p> <p>Country of origin: Russia</p>	The purchase of a case for the PSK-MG4 and PSK-MG4.01 digital deflection meters is justified by the need to ensure the safety,	89,900	until November 15, 2025	50/50	12 month	

			ease of transportation, and safe storage of precision measuring equipment. The case protects the instruments from mechanical damage, dust, moisture, and other external influences, which is especially important when used in the field. Using a specialized case extends the life of the equipment, maintains its metrological characteristics, and reduces the risk of failure during transportation, making its purchase both practical and cost-effective.					
64	2-channel 60 MHz oscilloscope Hantek DSO5062B	HANTEK's range of digital oscilloscopes includes dual-channel desktop oscilloscopes. 5000B, 5000BM, and 5000P series oscilloscopes. Mixed - signal oscilloscopes MSO 5000 D series. The 5000B and 5000BM series differ only in memory capacity. The 5000B has 1M of memory, while the 5000BM has 2M. The 5000P series differs from	The Hantek DSO5062B dual-channel oscilloscope was purchased to accurately diagnose and analyze electrical signals during repair, setup, and research. This device provides high measurement accuracy, real-time signal waveform display, and analyzes both low- and high-frequency processes, which is especially important	259,491	until November 15, 2025	50/50	12 month	

		<p>the B/BM series in its smaller memory capacity and maximum input voltage in 1:1 mode 35V. At the same time, the 5000P has a faster memory, which allows the use of higher sampling rates in some combinations memory size and time/division than 5000B/BM.</p> <p>DSO-5000B Series Specifications</p> <p>Excellent industrial design. Keys for each channel, time, trigger, and multimeter.</p> <p>Large 7-inch screen with a resolution of 800*480.</p> <p>USB 2.0 interface, usb host , easily controlled from a PC</p> <p>High refresh rate (2500 frames)</p> <p>High sampling rates - 1GHz, 25GHz in equivalent mode.</p> <p>FFT, +, -, *, /, XY, 23 types of automatic measurements, template check</p> <p>Different trigger modes, separate time base for ALT trigger, easy to observe two signals with different frequencies, video trigger.</p>	<p>when working with digital and analog circuits. Its dual-channel design expands the capabilities of signal comparison and interaction analysis. The Hantek DSO5062B features a compact design, USB connection to a PC, and an intuitive interface, meeting modern measurement equipment requirements, making it a worthwhile and essential purchase for improving the quality of technical diagnostics and training.</p>					
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		Recording and saving signals Completeness: Device - 1 pc. Power cable - 1 pc. USB cable - 1 pc. Probes - 2 pcs. Technical parameters: Type: digital Number of analog channels: 2 Number of digital channels: no Bandwidth, MHz: 60 Sampling frequency per channel, GHz: 1 Series: dso5000						
65	NORDBERG JACK N32032 super-low rolling 3-ton, H=75-500 mm	Manufacturer: Nordberg Country of origin: China Load capacity 3000 kg Lifting height 500 mm Pick-up height 75 mm Rolling jack Yes Overall dimensions Width 400 mm Length 780 mm Height 165 mm	Purchase of a NORDBERG trolley jack N 32032 was designed to meet the need for rapid installation and repair work as part of the mobile overpass project. This jack provides high lifting capacity with minimal lifting height, which is critical when working with low-profile structures and equipment. Its compact, maneuverable, and	88,000	until November 15, 2025	50/50	12 month	

			reliable design allows it to be used in confined spaces and at temporary construction sites. Its robust body and load-bearing capacity ensure safe operation, and a lifting range of up to 500 mm allows for a wide range of tasks during overpass installation.					
66	Laboratory scales Gosmetr VLTE-310 (310 g, 0.001 g, external calibration)	<p>Maximum weighing limit (MWL or Max), g 310</p> <p>Discreteness (division value) (d), g 0.001</p> <p>Accuracy class High (II)</p> <p>External Calibration</p> <p>Adjustment weight 200 g F2 *</p> <p>Minimum weighing limit (MWL), g 0.02</p> <p>Verification division value (e), mg 10</p> <p>Limits of permissible error in weighing intervals during verification, mg:</p> <ul style="list-style-type: none"> - from 0.02 g to 50 g inclusive; ± 5; - over 50 g up to and including 200 g; ± 10; 	Gosmetr VLTE-310 laboratory scales was justified by the need for high-precision mass measurements of materials and components as part of the mobile overpass project. These scales provide the accuracy necessary for dosing and monitoring the mass of construction mixtures, chemical reagents, and small parts, which is critical to ensuring compliance with technological standards during the assembly and operation of mobile	496 213	until November 15, 2025	50/50	12 month	

		<p>- over 200 g up to and including 310 g ± 15</p> <p>Time to establish readings, s, no more than 3</p> <p>Weighing pan diameter, mm $\varnothing 120$</p> <p>Overall dimensions (L \times W \times H), mm 260 \times 190 \times 125</p> <p>Weight, kg, no more than 1.7</p> <p>Power consumption, V A, no more than 5.0</p> <p>Powered by AC power via an AC adapter with a rated output voltage of 5 V (voltage / frequency)</p> <p>230\pm23 V; 50\pm1 Hz</p> <p>Average service life, years, not less than 10</p>	<p>structures. External calibration ensures accurate measurements are maintained in the field. Their compact size and ease of use make them suitable for use at mobile and temporary sites, making their purchase both justified and necessary to ensure the quality of work on the mobile overpass.</p>					
67	External SSD Drive 2 TB, Kingston XS1000, Red	<p>Product UID SXS1000R/2000G</p> <p>Manufacturer: Kingston</p> <p>Model XS1000</p> <p>Hardware type: USB SSD</p> <p>Memory capacity, GB 2000</p> <p>Read speed up to 1050 MB/s</p> <p>Write speed up to 1000 MB/s</p> <p>Interface type: USB 3.2 Gen 2, USB 3.2 Gen 2 Type -C</p>	<p>An external SSD drive is essential for storing experimental results, reports, diagrams, graphs, and other project documentation. Furthermore, the device's portability facilitates information sharing between team members, especially</p>	71,990	until November 15, 2025	50/50	12 month	

		<p>Compatibility: Android, Chrome OS, Linux, macOS, Windows</p> <p>The color used in the design</p> <p>Red, Power Indicators</p> <p>Housing: Aluminum alloy + ABS</p> <p>Powered by USB port</p> <p>Additionally, storage temperature from -20°C to +85°C</p> <p>Dimensions and weight</p> <p>Dimensions (W x H x D)</p> <p>6.9 x 1.3 x 3.2 cm</p> <p>Package dimensions (W x H x D) 8 x 12 x 2.5 cm</p> <p>Product weight: 0.02 kg</p> <p>Weight with packaging 0.06 kg</p> <p>RTL packaging</p> <p>Factory data Warranty period (months) 60</p> <p>Link to the manufacturer's website</p> <p>www.kingston.com/ru</p>	when using the drive to transfer data between labs, presentations, or remote work.					
68	Service	Project Institute LLP .	for the development of an experimental stand for a mobile overpass, in particular: 1) development of the main components of the overpass structure;	4,005,036	until November 15, 2025	50/50	12 month	

			<p>2) preparation of technical specifications for the design of the overpass;</p> <p>3) development and research of a mathematical model of the overpass operation taking into account the load of the soil base;</p> <p>4) development of a calculation and explanatory note;</p> <p>5) development of operating instructions;</p> <p>6) development of a program and methodology for experimental research.</p>					
69	Tool trolley WDS-5	<p>Made of high-strength steel. Telescopic drawer guides. Full extension drawer system. The load capacity of the small box is 15 kg, the large box 30 kg, and the trolley lid 40 kg. Equipped with comfortable handles and swivel rubber wheels, one wheel is equipped with a parking brake (diameter 100 mm). The top of the trolleys is covered with a rubber oil-resistant mat. The trolley is equipped with a central key lock. Supplied assembled.</p>	<p>Designed for storing and quickly moving tools in manufacturing facilities, auto repair shops, and repair shops, these carts are available in both open and closed configurations.</p>	142 212		50/50	12 month	

		Maximum load on the trolley is 145 kg						
70	Metal tool cabinets	Material: Powder-coated steel for strength and durability. Design: Adjustable shelves and locking doors for tool storage. Functionality: Provides convenient storage for small and medium-sized tools, preventing loss and damage.	They are designed for convenient and reliable storage of various tools, instruments, metalworking equipment and other products in production facilities, workshops, repair rooms, garages , service stations and other organizations.	148,656		50/50	12 month	
71	Workbench	Work surface: made of a material resistant to mechanical damage and chemical exposure (e.g., laminated chipboard, coated steel). Construction: reinforced metal frame for stability and durability. Additional elements: tool boxes, stands, and equipment mounts, which enhance the functionality and ergonomics of the workspace.	This is a durable and reliable work bench designed for various metalworking, repair, and assembly tasks. Its reinforced steel construction ensures high stability and durability, even under intensive use.	798 007		50/50	12 month	
72	Recuperator	This modern recuperator features a powerful EC motor with a capacity of 70 m ³ /h. It is designed to provide superior air quality and boasts low noise levels of just 11 dB(A) at speed 1. The unit is also equipped with an innovative heat recovery	This is a device designed to recover heat or cold from exhaust air and transfer it to the supply air in ventilation systems. It significantly reduces	520 500		50/50	12 month	

		<p>system, which helps reduce energy consumption by up to 30%.</p> <p>Royal The Clima RCF-70 features an ergonomic control panel with easy adjustment of three speeds. This allows you to easily customize ventilation to suit your needs.</p> <p>3-speed silent EC motor.</p> <p>The fan is reversible and operates alternately, supply/exhaust.</p> <p>Low noise level from 11dB(A).</p> <p>Ceramic heat exchanger with energy efficiency up to 92%.</p> <p>G3 class filter included.</p> <p>Power consumption less than 12W.</p> <p>Wi-Fi module for control from a smartphone and connecting installations to a network.</p> <p>Operating temperature range from -25 to +50 °C.</p>	<p>energy loss during room ventilation.</p> <p>Benefits:</p> <p>Reduced heating/cooling costs.</p> <p>Improving the microclimate without drafts.</p> <p>Decreased humidity and mold growth.</p>					
73	Hydraulic trolley with scissor lift TOR HLS1000Q (S)	<p>Reliable and convenient equipment for lifting and transporting loads weighing up to 1,000 kg. The maximum lifting height is 1,150 mm, allowing for easy handling of loads at various heights.</p>	<p>This device is ideal for warehouses, production facilities and workshops where heavy objects need to be moved and positioned quickly and efficiently.</p>	390 625		50/50	12 month	

74	ESP-32 Wi-Fi / Bluetooth Board on CP2102	Model , type , article : ESP 32 DevKit v1, CP2102 Characteristics : Microcontroller With Wi-Fi and Bluetooth support , 3.3 V power supply , interfaces : UART, SPI, I2C, ADC, DAC	Used in IoT systems, automation systems, and educational projects	4,500		50/50	12 month	
75	Aduino Nano to FT232RL (China) with cable	Model, type, article: Arduino Nano , FT232RL Specifications: ATmega328P, 5V, FT232RL USB interface, 16 MHz	Programmable controller for electronic project development	3,081		50/50	12 month	
76	ALTERA FPGA Cyclone IV EP4CE6E22C8N	The Altera FPGA Cyclone IV EP4CE6E22C8N programmable logic integrated circuit (FPGA) is a 32-bit device with SRAM-type architecture, manufactured using a 60 nm process technology. It has 6,272 logic elements grouped into logic cells (logic array The chip supports up to 79 user I/O pins. The total on-chip memory capacity is 276 kBytes, implemented as RAM blocks. The chip also includes 15 integrated hardware multipliers supporting 18x18-bit operations, which can be used to implement digital filters,	Hot swapping is supported (Hot Socketing), built-in overload protection, data integrity monitoring during programming, and support for CRC and configuration stream encryption. Power consumption is optimized using low-power FPGA fabric technology . Partial reconfiguration is supported, allowing logic sections to be changed without shutting down the entire system.	70 290		50/50	12 month	

		<p>matrix operations, and other digital signal processing tasks. The device supports multiple I/O standards, including LVCMOS, LVTTL, SSTL, and HSTL, with selectable I/O voltages of 1.2 V, 1.5 V, 1.8 V, 2.5 V, and 3.3 V. It also supports PLLs (phase- locked loops) with two integrated PLLs providing clock signal generation and synchronization. The maximum operating clock frequency of the internal logic circuits reaches 252 MHz. The device is housed in a 22-pin EQFP (Enhanced Quad Flat Package) with a pitch of 0.5 mm. The operating temperature range is from 0 to +85 °C, the supply voltage VCCINT is 1.2 V, and the input/output voltage depends on the selected standard and ranges from 1.2 V to 3.3 V.</p> <p>The chip configuration is carried out by an external source, Active configuration methods are supported Serial (AS), Passive Serial (PS), JTAG.</p>	<p>Verilog hardware description language (HDL) development using the Quartus environment. Prime and supports automatic IP core generation, as well as built-in logic analyzer debugging using SignalTap II.</p>					
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77	LORA Ra-02 module on SX1278 433MHz, 20dBm, 1.8-3.7V, 10 km	Model, type, article number: Ra -02 SX1278 Specifications: Frequency 433 MHz, power supply 1.8–3.7 V, range up to 10 km	Wireless communication using LoRa technology	3,961		50/50	12 month	
78	2.4G NRF24L01P+PA+LNA Module (with antenna)	Model, type, article number: NRF 24L01P+PA+LNA Specifications: 2.4 GHz, PA and LNA amplifiers, antenna included	Radio communication between microcontrollers	3,420		50/50	12 month	
79	Bluetooth module HC-06	Model, type, article number: HC -06 Specifications: Bluetooth 2.0, UART, power supply 3.3–6 V	Wireless data transfer via Bluetooth	4,290		50/50	12 month	
80	Digital oscilloscope RIGOL DS1054Z	The RIGOL DS1054Z digital oscilloscope is a four-channel measurement device with a 50 MHz bandwidth and a sampling rate of up to 1 GSa /s on a single channel. The maximum recording depth is 24 MB, enabling long-term waveform storage and subsequent detailed analysis. The oscilloscope features a 7-inch TFT-LCD display with a resolution of 800 x 480 pixels, providing a clear and informative display of up to four signals simultaneously. The input impedance is 1 M Ω 14 pF, and the input voltage is	It features a built-in signal generator and mathematical functions, including FFT (fast Fourier transform) for spectral analysis. It supports USB drives and PC connectivity via USB or LAN using the LXI protocol. The device is powered by a 100–240 V AC power supply, with a frequency of 45–440 Hz and a power	452,800		50/50	12 month	

		<p>up to 300 V RMS (safety category CAT I).</p> <p>The device supports up to 30,000 waveforms per second, enabling effective detection of rare and random signal anomalies. The oscilloscope is equipped with a digital trigger processing system supporting various trigger types: edge, level, pulse width, delay, logic, and others. External synchronization is possible, as well as advanced analysis via I²C, SPI, RS232, CAN, and other protocols, if the appropriate options are available.</p> <p>The time base range varies from 5 ns /div to 50 s/div, vertical resolution is 8 bits, and sensitivity ranges from 1 mV/div to 10 V/div. Built-in automatic measurement functions for over 30 signal parameters are available, including amplitude, frequency, average value, peak-to-peak, waveform shape, and more.</p>	<p>consumption of up to 50 W. Its dimensions are 313 x 160 x 123 mm and it weighs approximately 3.1 kg. The oscilloscope is certified to international safety standards, including CE, and is designed for use in laboratories, educational institutions, service centers, and digital electronics development environments. The device is compatible with UltraScope software and supports screenshot capture, remote control, and automated testing.</p>					
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81	Saleae Logic Analyzer Logic , 8 channels, 24 MHz (China)	Model, type, article number: Saleae Logic Clone Features: 8 channels, frequency up to 24 MHz, USB connection	: Analysis of digital protocols (SPI, I2C, etc.)	9,390		50/50	12 month	
82	Korad KA3010D laboratory power supply (30V, 10A)	Korad KA3010D laboratory power supply is a single-channel adjustable device with a maximum output power of 300 W, designed to provide stable voltage and current in the range of 0 to 30 V and 0 to 10 A, respectively. The device features digital control, allowing precise adjustment of parameters in 10 mV and 1 mA increments. Four-digit LED displays show the current voltage and current values, providing clarity and ease of use. The power supply has high output stability: the load effect on voltage is no more than $\pm 0.01\% + 2 \text{ mV}$, on current - no more than $\pm 0.1\% + 5 \text{ mA}$; the effect of line voltage on output parameters is no more than $\pm 0.01\% + 3 \text{ mV}$ for voltage and $\pm 0.1\% + 3 \text{ mA}$ for current. Ripple and noise are at a level of $\leq 2 \text{ mV RMS}$ for voltage and $\leq 3 \text{ mA RMS}$ for	The device features output overvoltage (OVP), overcurrent (OCP), and short-circuit protection. Up to five sets of parameter settings can be stored in non-volatile memory for quick access. A control panel lock prevents accidental settings changes. A built-in fan with automatic control ensures efficient cooling during operation.	153,000		50/50	12 month	

		current in the frequency range from 20 Hz to 20 MHz. The temperature coefficient is ≤ 150 ppm for voltage and current.						
83	Pulse power supply, 5V, 2A	Model, type, article number: 5 V 2A USB Adapter Characteristics: Switching power supply, USB output, 5 V, 2 A	Powering Arduino and other USB devices	2,980		50/50	12 month	
84	Defender EPA-10 USB Charger, 5V/2.1A, Black	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for charging device defender epa-10, usb , 5v/2.1a, black	1,651		50/50	12 month	
85	12V 1A pulse power supply	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for block pulse power supply 12V 1A	2,550		50/50	12 month	
86	Defender ES 3 - 3 M surge protector, 5 sockets, black	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for network filter defender es 3 - 3 m, 5 sockets black	3 191		50/50	12 month	
87	830-pin breadboard	Model, type, article number: To be confirmed	It is used for laboratory,	991		50/50	12 month	

		Characteristics: The main technical parameters correspond to the intended purpose of the device	educational or research purposes for breadboard 830 contacts					
88	Breadboard 400 contacts	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for breadboard 400 contacts	616		50/50	12 month	
89	Large breadboard SYB-500	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for the large breadboard syb-500	7 151		50/50	12 month	
90	140 jumper wires for breadboards	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for a set of jumpers for breadboards 140 pcs.	1,089		50/50	12 month	
91	MB102 Breadboard Power Supply Module (3.3V/5V)	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended	The mb102 breadboard power supply module (3.3V/5V) is used for laboratory,	638		50/50	12 month	

		purpose of the device	educational or research purposes.					
92	Double-sided mounting board 5x7 cm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for double-sided mounting board 5x7 cm	221		50/50	12 month	
93	Double-sided mounting board 3x7 cm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for a double-sided mounting board 3x7 cm.	132		50/50	12 month	
94	Double-sided mounting board 9x15 cm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for double-sided mounting board 9x15 cm	881		50/50	12 month	
95	40 soldering contacts (straight), 110x10 mm - Color: Black	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for soldering contacts 40 pcs (straight), 110x10 mm - color: black	56		50/50	12 month	
96	40-pin female contact panel	Model, type, article number: To be confirmed	Used for laboratory, educational or	77		50/50	12 month	

		Characteristics: The main technical parameters correspond to the intended purpose of the device	research purposes for 40pin female contact panel					
97	Connecting wires female-female 40 pcs., 20 cm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for connecting wires female-female 40 pcs., 20 cm	517		50/50	12 month	
98	Connecting wires female-male 40 pcs., 20 cm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for connecting wires female-male 40 pcs., 20 cm	716		50/50	12 month	
99	Connecting wires male-male 40 pcs., 20 cm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for connecting wires male-male 40 pcs., 20 cm	616		50/50	12 month	
100	Set of 20 wires, 15 cm (AWG24, tinned)	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended	Used for laboratory, educational or research purposes for a set of 20 wires 15 cm (awg24, tinned)	330		50/50	12 month	

		purpose of the device						
101	Set of 10 wires, 8 cm (AWG 24, tinned) - Color: Yellow	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for a set of 10 wires 8 cm (awg 24, tinned) - color: yellow	111		50/50	12 month	
102	Set of 10 wires, 8 cm (AWG 24, tinned) - Color: Green	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for a set of 10 wires 8 cm (awg 24, tinned) - color: green	111		50/50	12 month	
103	Black cable 24 AWG, (1 m)	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for black cable 24 awg, (1 m)	111		50/50	12 month	
104	Red cable 24AWG, (1 m)	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for cable red 24awg, (1 m)	111		50/50	12 month	
105	Youyue 8586 Soldering Station	Model, type, article number: To be confirmed	The Youyue 8586 soldering station is	67 191		50/50	12 month	

		Characteristics: The main technical parameters correspond to the intended purpose of the device	suitable for laboratory, educational, or research purposes.					
106	POS-61 0.8 mm solder in a 100g rosin reel	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for solder POS-61 0.8 mm in a reel with rosin 100g	5,721		50/50	12 month	
107	Liquid rosin with a brush	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Liquid rosin with brush is used for laboratory, educational or research purposes.	1,276		50/50	12 month	
108	A set of 5 mm LEDs, 5 types of 20 pieces each	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for a set of 5 mm LEDs, 5 types of 20 pieces each	1,420		50/50	12 month	
109	Metal foil resistors 0.25W 1% - C resistance : 220 Ohm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended	Used for laboratory, educational or research purposes for metal foil resistors 0.25W 1% -	6		50/50	12 month	

		purpose of the device	with resistance : 220 ohms					
110	Metal foil resistors 0.25W 1% - C resistance : 10 kOhm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used in laboratory, educational or research purposes for metal foil resistors 0.25W 1% - with resistance : 10 kOhm	6		50/50	12 month	
111	A set of 3362P trimmer potentiometers, 10 types, 50 pieces in an organizer.	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for recruitment 3362p trimmer potentiometers, 10 types, 50 pieces in an organizer	8,031		50/50	12 month	
112	Variable resistor (potentiometer) WH148-1A-2 (Shaft: 20 mm) - Resistance : 10 kOhm	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for variable resistor (potentiometer) wh148-1a-2 (shaft: 20 mm) - with resistance : 10 kOhm	188		50/50	12 month	
113	Potentiometer knob (d-6mm, h-17mm), for potentiometer WH148 - Color: Yellow	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended	Used for laboratory, educational or research purposes for potentiometer handle (d-6mm, h-17mm), for	66		50/50	12 month	

		purpose of the device	potentiometer wh148 - color: yellow					
114	Potentiometer knob (d-6mm, h-17mm), for potentiometer WH148 - Color: Red	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for potentiometer handle (d-6mm, h-17mm), for potentiometer wh148 - color: red	66		50/50	12 month	
115	Potentiometer knob (d-6mm, h-17mm), for potentiometer WH148 - Color: White	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for potentiometer handle (d-6mm, h-17mm), for potentiometer wh148 - color: white	66		50/50	12 month	
116	Mifare RC522 RFID Reader Kit (13.56 MHz)	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for recruitment RFID reader based on Mifare RC522 (13.56 MHz)	870		50/50	12 month	
117	High-frequency RFID card, 13.56 MHz	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended	It is used for laboratory, educational or research purposes for high-frequency	132		50/50	12 month	

		purpose of the device	RFID card, 13.56 MHz.					
118	Display 1602 (16x2 characters, green) + Control board	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used in laboratory, educational or research purposes for display 1602 (16x2 characters, green) + control board	2 167		50/50	12 month	
119	Four-character display on TM1637	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for a four-character display on the tm1637	749		50/50	12 month	
120	0.96" OLED screen 128x64, 4pin, I2C	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Suitable for laboratory, educational or research purposes for 0.96" OLED 128x64 screen, 4pin, i2c	1981		50/50	12 month	
121	Hakko 900M-T-1C Soldering Iron Tip , Metal	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for the soldering iron tip hakko 900m-t-1c, metal	330		50/50	12 month	
122	New features of Arduino , ESP,	Model, type, article number: To be confirmed	It is used for laboratory,	7,889		50/50	12 month	

	Raspberry Pi in IoT projects	Characteristics: The main technical parameters correspond to the intended purpose of the device	educational or research purposes for new capabilities of Arduino , ESP , Raspberry Pi in IoT projects					
123	Teaching materials: "Robotics from Scratch"	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for the methodological material "robotics from scratch"	1 199		50/50	12 month	
124	A set of bipolar transistors, 10 types, 200 pieces	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for a set of bipolar transistors, 10 types, 200 pieces	1,744		50/50	12 month	
125	Mosfet Field Effect Transistors (10 Types, 50 Pieces)	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for a set of field-effect mosfet transistors of the IRF series , 10 types, 50 pieces	9,776		50/50	12 month	
126	Omnidirectional GSM antenna 900/1800 MHz SMA	Model, type, article number: To be confirmed Characteristics: The main	Used for laboratory, educational or research purposes	1 210		50/50	12 month	

		technical parameters correspond to the intended purpose of the device	for omnidirectional gsm antenna 900/1800mhz sma					
127	TX433-TH-3, 433 MHz Helical Antenna, 1 dBi	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for tx433-th-3, 433MHz helical antenna, 1dbi	154		50/50	12 month	
128	GPS module Ublox NEO-6M (GY-GPS6MV2)	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	The Ublox Neo-6m (GY-GPS6MV2) GPS module is used for laboratory, educational, or research purposes.	2,200		50/50	12 month	
129	SMA Female PCB Mount Connector	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for connectors SMA (socket) for board mounting (female)	132		50/50	12 month	
130	STM32F407 Discovery Debug Board	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for stm32f407 discovery debug board	37,901		50/50	12 month	

131	NUCLEO-F103RB, a development board based on the STM32F103RBT6 MCU	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	Used for laboratory, educational or research purposes for the nucleo-f103rb, a debug board based on the stm32f103rbt6 mcu .	21,390		50/50	12 month	
132	USB A to USB B cable, 50 cm, blue	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for cable usb a to usb b, 50 cm, blue	682		50/50	12 month	
133	USB to Mini USB cable (78 cm)	Model, type, article number: To be confirmed Characteristics: The main technical parameters correspond to the intended purpose of the device	It is used for laboratory, educational or research purposes for cable USB to Mini USB (78 cm)	364		50/50	12 month	
134	Rigol DG1022Z signal generator	The Rigol DG1022Z waveform generator is a dual-channel device with a maximum sine wave frequency of up to 25 MHz and a sampling rate of 200 MS /s. It features 14-bit vertical resolution and a standard 2 Mpts arbitrary waveform memory depth , expandable to 16 Mpts . The device supports over 160 built-	The built-in frequency counter measures frequency, period, positive and negative pulse duration, and duty cycle in the range from 1 μ Hz to 200 MHz with a resolution of up to 7 digits per second.	465 642		50/50	12 month	

		<p>in arbitrary waveforms, including sine, square, sawtooth, pulse, and noise waveforms.</p> <p>The DG1022Z features a 3.5-inch color TFT display with a resolution of 320 x 240 pixels, providing a user-friendly interface for setting up and displaying signal parameters. The device supports various modulation types, including AM, FM, PM, ASK, FSK, PSK, and PWM, with the ability to use both internal and external modulation sources. Sweep (linear, logarithmic, and step) and burst modes are also available .</p> <p>The output signal amplitude is adjustable in the range from 1 mVpp to 10 Vpp with a 50 Ohm load for frequencies up to 10 MHz and up to 5 Vpp for frequencies up to 25 MHz</p> <p>The device has a frequency stability of ± 1 ppm and a phase noise of -125 dB/Hz at 10 kHz offset.</p>	<p>Connection interfaces include USB Host for connecting flash drives, USB Device for connecting to a PC, and LAN for networking. The device's dimensions are 261.5 x 112 x 318.4 mm and weighs approximately 3.2 kg. Power is supplied from an AC power source with a voltage of 100–240 V and a frequency of 45–440 Hz.</p> <p>The Rigol DG1022Z is designed for use in educational institutions, research laboratories, as well as in manufacturing and service centers, providing a wide range of capabilities for generating and analyzing various waveforms.</p>					
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135	Canon i- Sensys LBP-122dw laser printer ,	Model i - Sensys LBP -122 dw , Manufacturer: Canon , Print Type: Monochrome, Resolution DPI printing		2*125,539.00=251,078		50/50	12 month	
136	24" Samsung Monitor Odyssey G3 LS24DG300EIXCI, Black	Manufacturer Samsung, Model Odyssey G3 LS24DG300EIXCI, Screen surface type Matte, Matrix type VA, Screen diagonal, inches 24, Color used in the design Black, VESA mounting standard 100x100 mm, Monitor tilt angles from -5 to 20 degrees, Kensington lock slot Yes, Height adjustment, cm 12, Connection interface HDMI, DisplayPort , Other connectors Headphone jack, Cables included DisplayPort , HDMI. Term warranty (months) 12		79990		50/50	12 month	
137	Mondi Snow Maiden A4 paper ,	Manufacturer: Mondi , Model: Snegurochka, Type: Office paper, Format: A4 (21 x 29.7 cm), Density: g/m² 80, Number of sheets in a package 500. Package dimensions (W x H x D) 21 x 30 x 5.5 cm, Weight with packaging 2.46 kg.		4*2,390.00=9,560		50/50	12 month	

138	Laptop	Number of cores: 8, RAM: 16 GB, dimensions: 29.7 x 20.9 x 1.7 cm.	laptop for work	700,000		50/50	12 month	
139	Subscription to specialized HOMER PRO software	Modeling and analytical platform for hybrid power systems, HOMER Energy, UL Solutions (USA), Built-in model library or manual input of equipment parameters	Software for work	1,000,000		50/50	12 month	
140	Production of thin sections			204,000		50/50	12 month	
141	Production of polished sections			204,000		50/50	12 month	
142	Petrographic description			480,000		50/50	12 month	
143	Mineragraphic description			432,000		50/50	12 month	
144	Separation on a gravity table with weighing			112,500		50/50	12 month	
145	X-ray microanalysis			920,000		50/50	12 month	
146	Laptop-			2*1,289,999 = 2,579,998		50/50	12 month	
147	monoblock			2* 1 049 990 = 2,099,980		50/50	12 month	
148	Printer			608,500		50/50	12 month	
149	RocTunnel -			6,719,328		50/50	12 month	
150	Set of boring cutters			102,000		50/50	12 month	
151	Boring bar			104,000		50/50	12 month	

152	Replaceable inserts for cutters			410,000		50/50	12 month	
153	Bore gauge indicator			539 138		50/50	12 month	
154	Laptop			3,000,000		50/50	12 month	
155	Components for the manufacture of a machine tool frame			250,000		50/50	12 month	
156	Plastic for 3D printing			3,400,000		50/50	12 month	
157	Laptop	MacBook Pro A2918 with Retina Liquid XDR Display (MTL73)	MacBook is available for purchase. Pro, which includes the free WinCC application. Sm@rtClient SIMATIC WinCC OA UI, which has the functions of SIMATIC WinCC V7.0.	1679990		50/50	12 month	
158	Laptop	MacBook Air A2681 with Retina Liquid Display (MLY33)	MacBook Powered by the next-generation M2 chip, the Air is stunningly thin and delivers exceptional speed and power efficiency in a durable all-aluminum chassis. It's an ultra-fast and ultra-powerful laptop that lets you work, play, or create—anywhere.	1229990		50/50	12 month	
159	Service	Polam 32 Microscope	and mineral exploration	2*500000=1,000,000		50/50	12 month	

160	Tablet	Apple tablet iPad A2602 with 10.2" Retina display , 256GB, Wi-Fi , Space Gray (MK2N3)	For working with documentation and calculations for the project	319990		50/50	12 month	
161	Service	Laboratory of Dostar LLP	Rent for work and exploration of rocks and minerals	2*400,000=800,000		50/50	12 month	
162	Printer	HP LaserJet laser printer Pro 4003dn	To print documentation and calculations for the project	179990		50/50	12 month	
163	External hard drive	External hard disk 4000Gb 2.5", Transcend StoreJet 25H3, Black-Violet	for data storage	2*92590=185180		50/50	12 month	
164	TOMTOC Defender-A13 Black Case for MacBook 16.2 (A13E3)	<ul style="list-style-type: none"> • Compatibility: Designed for 15-inch laptops, including MacBook Pro 15". • Material: Made of durable polyester to ensure durability and protection for your device . • Protection: Equipped technology~CornerArmor with reinforced inserts on the corners, which increases <p>Made from durable polyester to ensure durability and protection of your device .</p> <p>Equipped CornerArmor technology with reinforced inserts on the corners, which increases the device's protection during drops and impacts.</p>	Made from durable polyester to ensure durability and protection of your device . Equipped CornerArmor technology with reinforced inserts on the corners, which increases the device's protection during drops and impacts.	2*10,000=20,000		50/50	12 month	
165	Mouse for laptop	Logitech M190, Gray, Wireless, Optical, 1000dpi, 1 x AA, USB	A laptop mouse is required for working on a laptop and	2*6990=13,980		50/50	12 month	

			working with modeling programs used in mining, as well as for working with programs for processing acoustic sounding.					
166	Mouse pad	Game Mouse Pad Shadow (Small), 290*210*2mm	mouse pad is essential for comfortable and mobile working with a laptop.	2*1500=3000		50/50	12 month	
167	Clamp	19 mm black	Paper is necessary for working with documentation within the project.	2*3,000=6,000		50/50	12 month	
168	Roll up	stand	exhibition stand	24150		50/50	12 month	
169	Protective keyboard cover for MacBook	CLASSNO protective cover for A2442, A2779, A2981, A2992, A2485, A2780, A2991, A2681, A2941, A3113	A protective cover is necessary for convenience and mobility of working with a laptop.	2*1490=2980		50/50	12 month	
170	A4 office paper	SvetoCopy	Paper is necessary for working with documentation within the project.	20*2500=50,000		50/50	12 month	
171	Laptop	Lenovo IdeaPad Slim 3 15IRH10, Core i5-13420H/15.3"WUXGA/8GB/512 GB/UHD Graphics/DOS	For research work	2*1 101588 = 2 203 176		50/50	12 month	
172	Laptop	Apple laptop MacBook Air A2681 with Retina display Liquid (MLXW3)	Development and storage of design documentation	2*699,990=1,399,980		50/50	12 month	
173	MFP printer	HP LaserJet MFP M141w	prompt and cost-effective printing of	93990		50/50	12 month	

			working documentation, information and reporting materials within the framework of the project					
174	Mouse	Xiaomi Wireless Mouse Lite 2 XMWXS02YM, Black, USB	Essential for convenient, accurate and productive work on a project.	$2 \cdot 4490 = 8980$		50/50	12 month	
175	Stand	Stand - stretching	To design the project's events and increase the visual recognition of its theme.	24,150		50/50	12 month	
17 6	Computer	Dell Vostro 3030 (6PR23)	Carrying out theoretical and simulation studies	459990		50/50	12 month	
17 7	27" Samsung Monitor Odyssey OLED G6 LS27DG612SIXCI	27" Samsung Odyssey OLED G6 LS27DG612SIXCI	Carrying out theoretical and simulation studies	410990		50/50	12 month	
17 8	FX5U-32MR/DS Controller	FX5U =24V: 16 inputs = 24V; 16 relay outputs; 2 analog inputs; 1 analog output; Ethernet; RS485; SD	Experimental studies on research objects	449277		50/50	12 month	
1 79	Power supply	STEP-PS/1AC/24DC/2.5, 24V 2.5A	Experimental studies on research objects	98514		50/50	12 month	
18 0	Automatic interface converter	AC3-M- 024, RS-232/RS-485, voltage 24 V	Experimental studies on research objects	$2 \cdot 57693 = 115386$		50/50	12 month	
18 1	Redmi tablet Pad Pro	12.1", 256 GB, Wi-Fi , Graphite Gray	Carrying out theoretical and simulation studies	139990		50/50	12 month	
18 2	Laptop	HP ENVY x360 16-ac0009ci (B09JNEA)	Carrying out theoretical and simulation studies	739990		50/50	12 month	

18 3	Cartridge	Mf 247dw and LaserJet M1132 MFP printers	consumables for conducting research	$10 \cdot 3500 = 35,000$		50/50	12 month	
18 4	Office paper	"SVETOCOPY" (class "C" whiteness 146 %)	consumables for conducting research	$35 \cdot 2165.14 = 75,779.9$		50/50	12 month	
18 5	Office supplies	files, staplers, staplers, markers, binders, etc.	consumables for conducting research	34,120.1		50/50	12 month	
18 6	Stand	roll-up canvas on banner fabric	to demonstrate the project	25,000		50/50	12 month	
18 7	An object protected by copyright	certificate of intellectual property	confirmation of research results	$2 \cdot 11996 = 23,992$		50/50	12 month	
18 8	Patent for a utility model	patent	confirmation of research results	50 104.48		50/50	12 month	
1 89	Laptop	ASUS Vivobook S 16 16" / 24 GB / SSD 1024 GB / Win 11 / M5606WA-MX100W / 90NB14B3-M008B0	It is necessary for processing experimental data, modeling thermal processes, preparing technical documentation, as well as conducting on-site tests and communicating with industrial partners.	1099990		50/50	12 month	
190	ASUS TUF Gaming F15 FX507VV Laptop			890,000		50/50	12 month	
191	Laptop			1499990		50/50	12 month	
192	Complex for determining physical and mechanical properties			28054621		50/50	12 month	
193	Laptop			$3 \cdot 1068980 = 3,206,940$		50/50	12 month	
194	Laptop Lenovo Legion 5 15IRX10,	Operating system: Absent		$3 \cdot 1500000 = 4,500,000$		50/50	12 month	

	OLED (83LY00HMRK)	<p>Attention: Don't forget to buy an operating system</p> <p>Processor: Intel Core i7</p> <p>Processor model: 14700HX</p> <p>Processor frequency, GHz: 1.5</p> <p>Integrated graphics: Intel UHD Graphics</p> <p>Discrete graphics card model: GeForce RTX 5060</p> <p>RAM capacity, GB: 16</p> <p>RAM Configuration: 1 x 16 GB</p> <p>Number of RAM slots: 2</p> <p>Solid State Drive: 512GB SSD</p>						
195	HP Color LaserJet Pro MFP 3303fdw	<p>Print type:</p> <p>Color Supported print formats: A4, A5, B5, B5 (JIS), B6 (JIS), C5, DL (ISO)</p> <p>Minimum paper density, g/m², from: 60</p> <p>Maximum paper density, g/m², up to: 200</p> <p>Maximum print resolution, DPI: 600 x 600</p> <p>Maximum black and white print speed, ppm, up to: 26</p> <p>Recommended load, pages/month, up to: 2500</p>		2*455000=910,000		50/50	12 month	

		Scanner resolution, DPI: 1200 x 1200 Input tray capacity: 250 sheets Receiving tray capacity: 100 sheets Automatic two-sided printing (duplex), Printing from USB, Fax, Apple AirPrint, Mopria (Android), Google Cloud Print						
196	Stationery			100,000		50/50	12 month	
197	Laptop			4*600000= 2,400,000		50/50	12 month	
198	Laboratory coat			8*4500=36,00 0		50/50	12 month	
199	Safety glasses			8*2000= 16,000		50/50	12 month	
200	Helmets			5*4500= 22,500		50/50	12 month	
201	Safety footwear			5*14500= 72,500		50/50	12 month	
202	Workwear			5*25900= 129,500		50/50	12 month	
203	X-ray powder diffractometry			30*50000= 1,500,000		50/50	12 month	
204	Scanning electron microscopy			30*90000= 2,700,000		50/50	12 month	
205	Determination of elemental composition by the ICP-OES method			50*32000= 1,600,000		50/50	12 month	

206	Powder modifiers (TiC , TiC0.5N0.5, TiN , TiN+Y2O3)			450*25000= 11,250,000		50/50	12 month	
207	Laptop ASUS ROG Strix G16 G614JZ (90NR0CZ1-M007Y0)			2*989900= 1,979,800		50/50	12 month	
208	HP All-in-One 27-cr0027ci			2*459990= 919 980		50/50	12 month	
209	AutoMeister 4- Post Lift 380V T4-AA			750,000		50/50	12 month	
210	Laboratory scales Gosmetr VLTE-310			440400		50/50	12 month	
211	Profile pipe 160x160x4.0			97399		50/50	12 month	
212	Electric-welded pipe 102			39224		50/50	12 month	
213	Cold rolled sheet 2.0 1.25 x 2.5			21725		50/50	12 month	
214	Laser cleaning device rw-lc-2000w			6,570,000		50/50	12 month	
215	External SSD Drive 1 TB, Transcend ESD310C, Black			62590		50/50	12 month	
216	External SSD Drive 1 TB, Kingston XS1000, Black			45590		50/50	12 month	
217	Mondi Snow Maiden A4 Paper , 500 sheets			10*2490= 24,900		50/50	12 month	
218	HP Color Laser 178nw MFP			179990		50/50	12 month	
219	Laptop			2* 1038490 = 2,076,980		50/50	12 month	
220	Laptop			1529990		50/50	12 month	

221	Multifunctional office device			486350		50/50	12 month	
222	Laptop			2*1999990= 3,999,980		50/50	12 month	
223	MAPLE software			2*765359= 1,530,718		50/50	12 month	
224	Windows 11 operating system			4*89990= 359,960		50/50	12 month	
225	Statistica software			5*403200= 2,016,000		50/50	12 month	
226	Microhardness tester			12,000,000		50/50	12 month	
227	Buyirlik cutter 160 mm			2*300000= 600,000		50/50	12 month	
228	Buyirlik cutter 200 mm			2*356000= 712 000		50/50	12 month	
229	Фезаға арналған Salmaly plastinalar			20*17500= 350,000		50/50	12 month	
230	Токарлық кескіштер			20*5550= 111,000		50/50	12 month	
231	Indicators bore gauge			98220		50/50	12 month	
232	flaw detector			2,500,000		50/50	12 month	
233	Laptop			1,500,000		50/50	12 month	
234	Pulverbakelite			230*48000= 11,040,000		50/50	12 month	
235	Lenovo all-in-one PC Yoga AIO 9 321RH8			999990		50/50	12 month	
236	HP Color LaserJet CP5225N Printer			799990		50/50	12 month	
237	Instrumental elemental analysis of coals and ash waste for the			100*65000= 6,500,000		50/50	12 month	

	content of rare earth metals and natural elements and ash content							
238	Components for the production of technological equipment			2,500,000		50/50	12 month	
239	Roughness meter TIME 3220			2,000,000		50/50	12 month	
240	FSC6, Spectrum Analyzer, 9 kHz to 6 GHz			5741000		50/50	12 month	
241	MikroTik radio bridge kit Wireless Wire Dish			138,900		50/50	12 month	
242	Bambu 3D printer Lab P1P			677,998		50/50	12 month	
243	ASUS Vivobook laptop Pro 16X, 3.2 GHz 16 GB			4* 899990 = 3,599,960		50/50	12 month	
244	Set of sensors			2*7618= 15 236		50/50	12 month	
245	Apple laptop MacBook Pro 14, 36 GB			1 655 595		50/50	12 month	
246	Bosch screwdriver			71 672		50/50	12 month	
247	Force Set, 82 pieces			45 729		50/50	12 month	
248	Bambu 3D printer Lab			1 400 000		50/50	12 month	
249	3D printer plastic, 0.5 kg			3*14000= 42,000		50/50	12 month	
250	Shining 3D 3D scanner			2,999,000		50/50	12 month	

251	Manufacturing of individual components for a system for the simultaneous transmission of energy and information parameters via a fiber-optic conductor			2,900,000		50/50	12 month	
252	Laptop HP Specter x360 16-aa0002ci, Core Ultra 7 155H/16"WQ+/32GB/1TB/ Arc Graphics /W11S			1,199,900		50/50	12 month	
253	Mouse HP Z3700, Black, Wireless, Optical, 1200dpi, 1 x AA, USB			15,990		50/50	12 month	
254	Laptop bag 15" HP Professional, Black, Polyester			15,990		50/50	12 month	
255	USB 3 HDD External 1TB 2.5", Apacer AC237, Black			36,990		50/50	12 month	
256	Ballpoint pen. LUXOR Spark	2. Ballpoint pen LUXOR Spark • Type: Ballpoint • Ink color: Blue • Writing tip diameter: 0.7 mm • Mechanism: Push-button • Body: Plastic, with rubber cuff • Manufacturer: Luxor • Country of origin: India		50*195=9,750		50/50	12 month	
257	Berlingo " Instinct " HB graphite pencil			25*185=4,625		50/50	12 month	

258	Eraser - 20x30mm. "ELEPHANT" white			10*140=1,400		50/50	12 month	
259	RETYPE Concealer with Brush	Corrector with brush “RETYPE” • Type: Liquid corrector • Volume: 20 ml • Applicator: Brush • Color: White • Drying time : Up to 60 seconds • Safety: Toluene-free • Made in: Germany / Europe		15*460=6,900		50/50	12 month	
260	Staples No. 10 Berlingo , galvanized, 1000 pcs.			20*170=3,400		50/50	12 month	
261	Paper clips 28 mm 100pcs			10*180=1,800		50/50	12 month	
262	Transparent tape 48mm 200m	Transparent adhesive tape 48 mm × 200 m • Tape width: 48 mm • Length: 200 meters • Color: Transparent • Base: Polypropylene (BOPP) • Adhesive: Water-based acrylic • Temperature resistance: from -10°C to +45°C • Made in: China		5*985=4925		50/50	12 month	
263	File 60 microns China (pack of 100)			700*15.9=11,1 30		50/50	12 month	
264	Undated diary , 320 pages.	Undated diary, 320 pages • Type: Undated • Volume: 320 pages • Format: A5 (approximately 145 × 210 mm) • Paper type: Offset, 70-80 g / m² • Binding: Hard / integral (to be confirmed) • Inner block: Lined / with columns		5*2,680=13,40 0		50/50	12 month	

		for planning • Made in: Russia / China ma diary A5 320						
265	Clamp 15 mm black			84*12.5=1,050		50/50	12 month	
266	Clamp 25 mm black	Clip 25 mm, black • Clip width: 25 mm • Color: Black • Material: Metal • Number of sheets that can be fastened: up to 100 • Packaging: 12 pcs. / box • Made in: China		60*26= 1,560		50/50	12 month	
267	Dynamic hardness tester TKM-359S	The relative reduced error during routine verification for 2nd grade hardness tests is 3-5% depending on the range The number of measurements to calculate the average value is 1–99 Results memory capacity measurements - 12,400		1,140,000		50/50	12 month	
268	Ultrasonic device for testing concrete strength UKS-MG4	The measurement range of the ultrasound propagation time, μ s - from 15 to 150 Discreteness of indication of the ultrasonic wave propagation time, μ s-0.1		1,490,000		50/50	12 month	
269	Epoxy resin ED-20	Mass fraction of epoxy groups, % - 19.9-22.0 Mass fraction of chloride ion, %, no more than 0.003 Mass fraction of saponifiable chlorine, %, no more than 0.5		28 kg * 5322 = 149,016		50/50	12 month	

270	Hardener polyethylenepolyamin e (PEPA)			6 kg * 12,960 = 77,760		50/50	12 month	
271	Quartz flour	Country of origin - Russia SiO2 content, not less than 99.5% Fe2O3 content, no more than 0.03%		25 kg * 5 128 = 128,200		50/50	12 month	
272	FEPA silicon carbide F 150 SiC 97%			125*4 350= 543,750		50/50	12 month	
273	Stationery			54,564		50/50	12 month	
274	Canon i- Sensys LBP- 243dw printer , A4, 36 ppm , 36 ppm , Wi-Fi , USB 2.0	Print type: monochrome, Print resolution, DPI 1200 x 1200, Custom Media Sizes Cassette (Standard): Custom sizes: Min. 105 x 148 mm, Max. 216.0 x 355.6 mm Multi-purpose tray: Custom sizes: Min. 76.2 x 127 mm, Max. 216.0 x 355.6 mm Double-sided printing: Custom size: min. 210 x 279.4 mm, max. 216.0 x 355.6 mm	for the prompt printing of scientific reports, articles, experimental data and other research documentation	147,620		50/50	12 month	
275	ProArt Laptop Backpack , 17" (Black)	Material Polyurethane, Polyester Fastener type: Zipper, Metal clasp Additional compartments for pens, a mobile phone, a tablet, business cards, additional compartments (documents,	for the safe transportation and storage of laptops used in research and development activities.	50,393		50/50	12 month	

		charger, etc.), a pocket for a drink bottle Matrix up to, inch 17						
276	USB Type-C SSD External 1TV, Araceg AS725, read 1000Mb/s, write 1000Mb/s, Black	USB Type -C SSD External 1TV, Araceg AS725, read 1000Mb/s, write 1000Mb/s, Black Volume memory , GB 1000		50 301		50/50	12 month	
277	A4Tech Fstyler FB45CS Air2 Mouse	Model FB45CS Air2 Stone Gray Sensor type: Optical Frequency polling , Hz 125		6,984		50/50	12 month	
278	Dr. Web Security Space Antivirus, 36 months, 1 PC, BOX	Product UID BHW-BK-36M-1-A3		18,416		50/50	12 month	
279	Defender Black Ultra XXL Mouse Pad, 89 x 0.3 x 45 cm , Black-Red	Rug For Defender Black Ultra XXL mice , 89 x 0.3 x 45 cm, Black-Red		4 313		50/50	12 month	
280	Service "Dynamic calculation and design of the chassis of a modular overpass"			2,000,000		50/50	12 month	
281	MFP Xerox C315, A4, print 1200x1200dpi, 33/33ppm, scan600x600dpi, LCD, ADF, USB, LAN, Fax , Wi-Fi			469,990		50/50	12 month	
282	Lenovo tablet Tab P12 TB370FU, MT D7050 8/128GB, 12.7"LTPS, 2944x1840, BT5.1, microSD , Storm Gray			181,838		50/50	12 month	

283	Mouse Logitech M280, Black, Wireless, Optical, 1000dpi, 1 x AA, USB			2*12,990=25,980		50/50	12 month	
284	Portcase SPM-889 16" Laptop Bag , Black , Faux Leather			2*15,835=31,670		50/50	12 month	
285	Flame spraying machine.	<p>The flame powder spraying complex contains the following components:</p> <ul style="list-style-type: none"> - burner 270 mm (diameter) x 210 mm (height) x 125 mm (width). Spray rate (kg/h) – from 0.9 to 9.1 kg/h; Powder dispenser – 1 pc. Powder feed speed from 1 to 29 rpm; gas control unit – 1 pc; set of hoses – 1 set; set of quick-wear spare parts for the burner - 3 sets; Ni-Cr-Fe-Si-B powder – 6 kg 	<p>The gas-flame spraying unit ensures the production of coatings (from self-fluxing Ni - Cr - Fe - S - B powder and Al , Zn , COC6 flux-cored wires) using gas-flame powder spraying and gas-flame wire spraying methods.</p>	13,831,363.2		50/50	12 month	
286	Laptop	<p>General information</p> <p>Processor : Intel Core i7</p> <p>Processor model : i 7 2700 H</p> <p>Processor frequency, GHz : 2.3</p> <p>Maximum processor frequency, GHz 4.7</p> <p>Number of cores : 14</p> <p>L3 Cache : 24 MB</p> <p>Discrete graphics card model GeForce RTX 3060</p> <p>Video memory capacity : 6 GB</p> <p>RAM type : DDR5</p> <p>RAM capacity , GB 16</p>		691 427		50/50	12 month	

		RAM frequency 4800 MHz Solid state drive 1 T B SSD IPS matrix , 144 Hz Screen diagonal, inches : 16.1 Screen resolution 1920 x 1080 Full HD Screen brightness, cd/m2 : 300 Screen surface : Matte Battery type Non-removable Battery capacity : 70 Wh Power adapter : 19.5V , 200W						
287	External SSD drive	Memory capacity, GB 2000 Read speed, 1050 MB/s Write speed, 1000 MB/s Interface type USB 3.2 Gen 2	Quickly upload and transfer large-scale UAV/RS field data Use as a fast cache for photogrammetry/GIS, speeding up processing Make online backups to reduce the risk of data loss	2*76000=152000		50/50	12 month	
288	External SSD drive	Memory capacity, GB 2000 Read speed, 1050 MB/s Write speed, 1000 MB/s Interface type USB 3.2 Gen 2		48,000		50/50	12 month	
289	Industrial robotic manipulator	Configuration: 6 axes, articulated kinematics Load capacity: up to 6 kg Working radius: 1500 mm Positioning accuracy: ±0.05 mm	to implement a grant on the topic: Development of technology for applying composite protective coatings to equipment parts in the	11,250,000		50/50	12 month	

		<p>Maximum angular speeds: • Axis 1 – 1480°/s • Axis 2 – 1480°/s • Axis 3 – 1480°/s • Axis 4 – 2220°/s • Axis 5 – 2220°/s • Axis 6 – 5600°/s</p> <p>Maximum wrist torque: ≤150 Nm</p> <p>Mounting options: ceiling, bracket (wall-mounted version) Travel ranges along the axes: • Axis 1: ±1650° • Axis 2: +1350/–700° • Axis 3: +850/–580° • Axis 4: ±1150° • Axis 5: ±300° • Axis 6: ±360°</p>	metallurgical and mechanical engineering industries					
290	PMT-3M Vickers microhardness tester and PC for microhardness tester	A microhardness tester designed to measure the microhardness of materials (metals, alloys, glass, ceramics, and minerals) by indenting a diamond indenter. The device enables observation of the microstructure of objects in bright/dark field or polarized light, and also allows for automated measurements and increased accuracy when used with a digital camera and specialized software.	to implement a grant on the topic: Development of physicochemical foundations for obtaining new materials with specified properties	12,000,000		50/50	12 month	
291	shell mold sample making machine	<p>Package Included:</p> <p>- Basic installation for making sand molds (fully ready for operation).</p>	To carry out research on the topic: Development and research of a cost-	11,040,000		50/50	12 month	

		<ul style="list-style-type: none"> -Control system with software and built-in security modules. - Spare set of quickly wearing parts (indenters, nozzles, sealing elements). - A set of consumables for launching (thermosetting resin, quartz sand, release agent, silicone additive). - Tool kit for maintenance (keys, screwdrivers, lubricants). -Power supply and protection system (cables, fuses, automation). -Documentation (product data sheet, operating manual, wiring diagram). 	effective technology for the production of precision castings in sand-resin molds obtained using variable static pressure					
292	Service: obtaining technical, methodological and consulting assistance in the analysis, evaluation and justification of technological schemes and parameters for support and management of rock mass stability in areas of increased rock arching during		The procurement of services is necessary for the analysis and validation of process schemes and parameters for supporting mine workings in complex geomechanical conditions. Calculations, modeling, and expert assessments will help determine optimal support parameters,	1,339,286		50/50	12 month	

	the development of thick coal seams to stabilize the contours of workings		improve rock mass stability, and ensure mining safety when developing thick coal seams.					
293	MSI Cyborg 15 A13VE (9S7-15K111-1638) Laptop	Operating system: Windows 11 Home (x64) Processor: Snapdragon X Plus Processor model: X1P-42-100 Processor frequency, GHz: - 1.7 Integrated graphics: Qualcomm Adreno RAM capacity, GB: 16 RAM Configuration: 16 GB (soldered) Number of RAM slots: None Solid State Drive: 1TB SSD Screen diagonal, inches: 14 Screen resolution: 1920 x 1200 WUXGA	n outbook is necessary for working with programs for modeling, used in mining in fact, also for work with programs for processing acoustic sounding	550,000		50/50	12 month	
294	Laptop Lenovo Legion 5 15IRX10, OLED (83LY00HMRK)	Operating system: Absent Note: Don't forget to purchase the operating system. Processor: Intel Core i7 Processor model: 14700HX Processor frequency, GHz: 1.5 Integrated graphics: Intel UHD Graphics	A laptop is necessary for working with programs for modeling, used in mining in fact, also for work with programs for processing acoustic sounding	650,000		50/50	12 month	

		Discrete graphics card model: GeForce RTX 5060 RAM capacity, GB: 16 RAM Configuration: 1 x 16 GB Number of RAM slots: 2 Solid State Drive: 512 GB SSD						
295	Programmable logic controller PLC110-220.30.R-L [M02]	Processor with frequency up to 1800 MHz Large memory capacity: - ROM up to 8 GB - RAM up to 2 GB - RETAIN 64 KB (MRAM) Linux operating system with RT patch Supports fast I/O up to 95 kHz on a dedicated PRU		302,400		50/50	12 month	
296	Analog output module MU110-224.6U	24 V, 6 VA, 8 analog inputs		133,560		50/50	12 month	
297	Analog input module MV110-224.8A	24 V, 6 VA, 8 analog inputs		105,420		50/50	12 month	
298	Power supply unit BP60A-24	24V 60W for DIN rail		59 220		50/50	12 month	
299	Electrical measuring module ME210-701	Dual Ethernet 10/100 Mbit, USB 2.0 (MicroUSB), Ethernet (RJ-45)		175 140		50/50	12 month	

300	Auto . off CHINT NXM-125S/3P	32A 25kA 844300		17,000		50/50	12 month	
301	The button is flat green with backlight,	220V AC/DC, 1NO, IP67, metal MTB2-BWF3361		2*6000= 12,000		50/50	12 month	
302	Flat red button with backlight	220V AC/DC, 1NC, IP67, metal MTB2-BWF3462		2*6000= 12,000		50/50	12 month	
303	Switch	short handle, black, 3 positions, 2NO, with locking, metal MTB2-BDZ13		5,000		50/50	12 month	
304	LED signal lamp	red, 220V AC/DC IP65 MT22- SA34		3* 1 100 = 3,300		50/50	12 month	
305	LED signal lamp,	yellow, 220V AC IP65 MT22-SA65		2* 1 100 = 2,200		50/50	12 month	
306	LED signal lamp	white , 220V AC IP65 MT22-S61		2* 1 100 = 2,200		50/50	12 month	
307	Automatic circuit breaker Chint NXB-63 3P	25A 6kA characteristic D		5,000		50/50	12 month	
308	Automatic circuit breaker Chint NXB-63	3P 4A 6kA characteristic C		6,000		50/50	12 month	
309	Semi-automatic grinding and	Buehler EcoMet 30		14,894,239.68		50/50	12 month	

	polishing machine and accessories							
310	Purchase of the service: “ Ashing (dry mineralization) of rock samples, bottom sediments, coals”, “Silicate analysis of rock samples, soils, bottom sediments, coal ash ”	" Ashing (dry mineralization) of rock samples, bottom sediments, and coals", "Silicate analysis of rock samples, soils, bottom sediments, and coal ashes"		877,184.10 rubles		50/50	12 month	
311	Particle Size Analyzer BPSA-5200H			7,249,900		50/50	12 month	
312	Planetary ball mill XQM-2A			1,666,928		50/50	12 month	
313	500 ml cups (jars) for planetary ball mill			132,258*4=529,032		50/50	12 month	
314	Steel balls	Balls for planetary ball mill		13,340*3=40,020		50/50	12 month	
315	Sparklux hacksaw metal SL860	Type: hacksaw for metal Processing material: metal Web length: 300.0 mm Blade material: stainless steel Handle material: rubberized plastic	For cutting reinforcement bars by physically cutting the metal	17,000		50/50	12 month	
316	Set of magnetic corners	Type: magnetic square set Angle, degrees: 90, 135, 30, 45, 75	For welding and assembly of structures,	2800*2=5600		50/50	12 month	

		Number of items: 6 Maximum weight of the held product: 34.0 kg.	ensuring precision and ease of use.					
317	Special clothing	Main material: polyester Gender: for men Outerwear: jacket Bottom of clothing: trousers	For safe operation: Protection from burns and thermal effects, Protection from mechanical damage	25,000		50/50	12 month	
318	Mi - leseey DT10 Precision Measurement Tool	Type: roulette Measuring scale: metric, zero mark: hook body material: plastic retainer: yes.	A reliable tool for accurate measurements of reinforcing bars	22,000		50/50	12 month	
319	Universal 202-in-1 Kit FORTE PRO 111 CGC-202	Type: tool kit Tools included: socket wrench, spanners, hammer, pliers, screwdrivers, combination wrenches, ratchet wrenches, side cutters , slotted wrenches, bit clamp, sockets with inserts, flexible socket extension, case, bit holder, bit extension Packaging: case	For working with a resistance welding machine: For working with a resistance welding machine; Installation and fixation of equipment; Maintenance and adjustment of welding equipment	73,000		50/50	12 month	
320	DKTB40 DEKO Tool Container	Purpose: universal, Material: plastic Carrying handle: yes, Length, cm: 53 Width, cm: 31	Container for storing tools and accessories.	25,000		50/50	12 month	

		Height: 25						
321	Sample container	Purpose: for instruments, for samples Shape: rectangular Material: plastic Volume: 70.0 l, Length cm: 58 Width, cm: 39 Height: 35.0 cm, on rollers	Container for storing reinforcing bars	14,870		50/50	12 month	
322	USB 3 HDD SLIM 1TB 3.5", WD Element		For backup, storage and processing of large volumes of experimental data, photos and videos obtained during the research	35,000		50/50	12 month	
323	Laptop backpack		For the safe transportation and security of scientific equipment (laptop and portable devices) during on-site research and presentations	30,000		50/50	12 month	
324	Color printer inks	Ink color: multicolor Quantity: 4 pcs. Compatible printer brand: Epson	For printing	5000*4=20,000		50/50	12 month	
325	A4 paper Snow Maiden, 80g/m2, 500 sheets		for the preparation of reporting, analytical and experimental	3331*7=23,450		50/50	12 month	

			documentation, printing of research materials and the preparation of reporting documents					
326	Adapter original		for connecting research equipment and peripherals in laboratory and field conditions.	20,000		50/50	12 month	
327	Laboratory installation NIO- PERM-25		to conduct research in the field of mining and oil and gas engineering	13 810 194		50/50	12 month	
328	Dell laptop Pro 14 PC14250, Core Ultra 7 255U/14"FHD+/32G B/512GB/ Intel Graphics / LAN / W11 Pro			749,990		50/50	12 month	
329	Laptop Lenovo LOQ 17IRX10, Core i7- 14700HX/17.3"FHD /32GB/1TB/GF RTX5070 8GB/LAN/DOS			949,990		50/50	12 month	
330	Dell 15" Laptop Backpack Premier Slim PE1520PS, Black , Polyester/Leather			42,990		50/50	12 month	

331	USB Type -C Flash Drive 128GB Kingston DataTraveler MicroDuo 3C, USB 3.2, read 200 Mb /s, Violet			9590*5=47,950		50/50	12 month	
332	Mouse Defender Fame GM-516, White , Wireless , Optical , 10000dpi, 300mAh, BT, USB			9990*2=19,980		50/50	12 month	
333	Cartridge Canon 070H - Black , 10200 pages , i-SENSYS LBP243dw/LBP246dw/MF465dw/MF463dw/MF461dw			141,990		50/50	12 month	
334	MFP Canon i-Sensys MF-465dw, A4, 40 ppm, USB 2.0, Wi-Fi , White			319,990		50/50	12 month	
335	A4 paper "Snow Maiden", 80g/m2, 500 sheets			2390*30=71,700		50/50	12 month	
336	Lomond A4 paper (0102022), 230g/m2, 50 sheets, glossy, single-sided			8990*2=17,980		50/50	12 month	
337	CVA-100 installation for		To perform high-precision	6,719,328		50/50	12 month	

	determining the anisotropy of velocities along the circumference of a sample		measurements of the propagation velocities of elastic waves in rock samples in various directions					
338	Topographical Greenvalley ARTGEO LiGRIP O2 LITE system		To carry out field research on underground and open-pit mining sites included in the research and development program	16,413,236		50/50	12 month	
339	Quartz sand, fraction 0.1–0.5 mm, 25 kg bag		It is used for the preparation of sand-resin mixtures with a fine mold structure, ensuring high precision and surface cleanliness of castings.	250,000		50/50	12 month	
340	Quartz sand, fraction 0.4–0.9 mm, 25 kg bag		It is used to form the base of a molding mixture with optimal gas permeability and strength during compaction.	250,000		50/50	12 month	
341	Thinner for oils, enamels and varnishes 200 l		Necessary for regulating the viscosity of resin binders and washing equipment after making molds	600*3200=1,920,000		50/50	12 month	
342	Boric acid 25 kg bag		It is used as a catalyst and antiseptic additive	250*5,470=1,367,500		50/50	12 month	

			to improve the properties of the molding mixture and prevent corrosion of equipment.					
343	Kerosene TS-1 5 l		It is used for the preparation and dilution of resins, as well as for cleaning metal surfaces from greasy contaminants.	$25 \times 11 = 275,000$		50/50	12 month	
344	Pulverbakelite SFP-011A 25 kg bag		Serves as the main binding component of sand-resin molds, providing strength and heat resistance during casting.	$100 \times 58,000 = 5,800,000$		50/50	12 month	
345	Half mask ZM assembled with filter		Provides respiratory protection when working with dust, resins and volatile substances	$20 \times 35,975 = 719,500$		50/50	12 month	
346	Split leather apron		Protects the operator's body and clothing from mechanical and thermal effects when working with hot molds	$20 \times 17,000 = 340,000$		50/50	12 month	
347	Nitrile coated gloves		Protect hands from contact with aggressive chemicals and mechanical damage	$20 \times 2700 = 54,000$		50/50	12 month	

348	protective glasses		Protect eyes when working with dusty materials, abrasives and liquid reagents	$20 \times 3200 = 64,000$		50/50	12 month	
349	Zenbook S 16 Ultrabook UM5606WA, OLED			999 990		50/50	12 month	
350	Microsoft Office Home and Business 2024			174,990		50/50	12 month	
351	Backpack for 16" laptop			17,990		50/50	12 month	
352	USB Type -C SSD External 1TB			58,990		50/50	12 month	
353	Logitech M325S Mouse			14,200		50/50	12 month	
354	Archive folder with ties			$2 \times 620 = 1,240$		50/50	12 month	
355	Paper clips 50 mm, 50 pcs .			420		50/50	12 month	
356	Paper clips 28 mm 100 pcs			94		50/50	12 month	
357	Abrasive cutting disc A1203 3 00x2x32 mm (60H RC)			$11 \times 15,500 = 170,500$		50/50	12 month	
358	Making Rool up			19,000		50/50	12 month	
359	Cartridge eSUN 3D Filament PLA+, 1.75 mm, Orange			$3 \times 9,800 = 29,400$		50/50	12 month	

360	eSUN 3D Filament PLA+ Cartridge , 1.75 mm, Very Pery			2*9,800= 19,600		50/50	12 month	
361	Lomond A4 paper , 100 sheets			6,990		50/50	12 month	
362	Lomond A4 paper , 50 sheets			8,760		50/50	12 month	
363	Mondi Snow Maiden A4 Paper , 500 sheets			10*23 75= 23 750		50/50	12 month	
364	Cartridge Europrint EPC-725, Black			2* 3,090 = 6,180		50/50	12 month	
365	Compressed air for cleaning Deluxe Air Clean , 400 ml			3,490		50/50	12 month	
366	Deluxe Cleaning Kit Set Clean (200 ml gel + microfiber)			2* 1 99 0 = 3 980		50/50	12 month	
367	Academic Program Research Mechanical & CFD			5,299,840		50/50	12 month	
368	Ansys Academic Research Mechanical and CFD (1 task) TECS (5 years of technical support)			5,600,000		50/50	12 month	
369	380V 2-post 4-ton lift (blue) NORDBERG N4120B-4B			905,000		50/50	12 month	

370	Compressor ACB-100/400 ALTECO			263,050		50/50	12 month	
371	X431 PRO3 SE Scanner			590,000		50/50	12 month	
372	Diagnostic adapters for X-431 PRO SE			49,920		50/50	12 month	
373	jProbe DT 80-100 video endoscope kit with a replaceable probe with two chambers (diameter 8.0 mm, length 1.0 m)			115,000		50/50	12 month	
374	All-in-one HP OmniStudio 27-cs0017ci (B49H6EA)			2 * 675 000 = 1 350 000		50/50	12 month	
375	Metal shelving unit with 6 shelves			2*42,529= 85,058		50/50	12 month	
376	Archive cabinet IIPA-21 850.4 (4 shelves, height 1850 mm)			3* 89,570 = 268,710		50/50	12 month	
377	Thermal imaging camera for thermal monitoring of buildings			12,774,780		50/50	12 month	
378	Set of sensors			2* 7,618 = 15,236		50/50	12 month	
379	Polarizing microscope MAGUS Pol 800			3,400,000		50/50	12 month	

380	Digital multimeter			1,800,000		50/50	12 month	
381	Vibrometer VK-5			1,500,000		50/50	12 month	
382	Profilometer ISHP-210			3,500,000		50/50	12 month	
383	Magician E6 Educational Robotic Manipulator			5,700,000		50/50	12 month	
384	Components for the production of technological equipment			1 857 220		50/50	12 month	
385	Epson ink kit L 4150 (4 colors)			129,016		50/50	12 month	
386	Samsung Ink Kit Xpress C 480 W (4 colors)			145,920		50/50	12 month	
387	CyberPower OLS6000ERT6U Uninterruptible Power Supply			1 277 820		50/50	12 month	
388	Air compressor			1,190,000		50/50	12 month	
389	Acetylene gas cylinder			400,000		50/50	12 month	
390	Oxygen gas			410,000		50/50	12 month	
391	Metal cabinet for 2 cylinders			460,320.81		50/50	12 month	

392	Laser welding machine BodorWelder 1500			4 813 728		50/50	12 month	
393	Tool kit			803,500		50/50	12 month	
394	Dosimeter-radiometer MKS-AT 6131V (beta and gamma radiation, alpha indicator)			1 588 768		50/50	12 month	
395	Dosimeter-radiometer MKS-AT 6130 with Bluetooth (beta and gamma radiation)			1 270 612		50/50	12 month	
396	Dosimeter-radiometer MKS-AT 1117M consisting of: information processing unit BOI-2, gamma radiation detection unit BDKG-03, handle for BD, holder for attaching BD to the handle, packaging briefcase			6 066 774		50/50	12 month	
397	Stationery			219 985		50/50	12 month	
398	HP All-in-One 27-cr0047ci, 27"FHD, Core i7-			4*485,932= 1,943,728		50/50	12 month	

	1355U/16GB/512GB/ Iris Xe Graphics /DOS							
399	Xerox MFP Workcentre 3025NI			115,208.5		50/50	12 month	
400	System unit Core i5-14700KF/ PRO B760M/ DDR5 64GB/ 1 Tb SSD /RTX5070/ 850W/ Case			1,105,000		50/50	12 month	
401	Systemic block Core i5-14400F/ PRO B760M/ DDR5 16GB/ 1 Tb ssd /RTX5060/ 600W/ Case/Win11 Pro			8 50 000		50/50	12 month	
402	Monitor 27" AOC Q27B35E/01 IPS 2560x1440 75Hz 1ms 300cd/m 1500:1 HDR10 HDMI DP Black			2* 90,000 = 180,000		50/50	12 month	
403	34" AOC CU34G4 Monitor			2* 170,000 = 340,000		50/50	12 month	
404	Bambu 3D printer Lab H2D AMS Combo			1,750,000		50/50	12 month	
405	Elegoo 3D printer Saturn 4 Ultra (16K)			450,000		50/50	12 month	
406	Anycubic Wash & Cure 3 - Cleaning			95,000		50/50	12 month	

	and UV curing station							
407	Photopolymer resin for printing			5* 24,300 = 121,500		50/50	12 month	
408	Equipment Maintenance Multi-Tool			179,664.35		50/50	12 month	
409	Uninterruptible power supply VOLTA Active 2000 LCD			2* 90,000 = 180,000		50/50	12 month	
410	Creality Space Pi Filament Dryer Plus (Filament Dryer)			48,000		50/50	12 month	
411	Petg 3D Printing Material			30* 8,900 = 267,000		50/50	12 month	
412	Pla 3D Printing Material			30* 8,900 = 267,000		50/50	12 month	
413	Raise3D Pro3 3D printer			4,850,000		50/50	12 month	
414	Ultrasonic flaw detector KRD-9300PLUS			1,850,000		50/50	12 month	
415	LCN-1000 CNC Thermal Hardening Machine			5,840,000		50/50	12 month	
416	Rope anchor			75*19000= 1,425,000		50/50	12 month	
417	Composite anchor			75*25000= 1,875,000		50/50	12 month	
418	DigiTouch V100-86 Interactive Panel			980,000		50/50	12 month	

419	Assembled computer			2,648,000		50/50	12 month	
420	Tool kit "FORCE"			142,755		50/50	12 month	
421	Extension cord "FORTE" 220V 50m on a PVC reel (summer) 3x2.5mm ²			30,800		50/50	12 month	
422	GeoPro GNSS T30 IMU Receiver			3,485,080		50/50	12 month	
423	A4 paper Snow Maiden, 80g/ m ²			10*2490= 24,900		50/50	12 month	
424	Ugreen 30127 USB 3.0 Type AA Extension Cable			2*2660= 5320		50/50	12 month	
425	HDMI cable iPower iPiHDMi50			2*2190= 4,380		50/50	12 month	
426	USB 3 Flash Drive 128GB AdataUR350			4,690		50/50	12 month	
427	Manufacturing of individual components for a system for the simultaneous transmission of energy and information parameters via a fiber - optic conductor.			4,800,000		50/50	12 month	
428	Ts large shelf TCSH 95*47			3*8100= 24,300		50/50	12 month	

429	TS large pull-out drawer TSR 87*45			4*22,500= 90,000		50/50	12 month	
430	Tabletop WT-160			43 628		50/50	12 month	
431	WD-5 stand			2* 106 200 = 212,400		50/50	12 month	
432	Shelf and wall WSh -160/2			10 530		50/50	12 month	
433	TS tool cabinet TS- 1995			117 000		50/50	12 month	
434	WDS-5 trolley			148 500		50/50	12 month	
435	Asus ROG G700 G700TF- 7265KF069W			1,589,759		50/50	12 month	
436	Microsoft Office Home and Business 2024			160,000		50/50	12 month	
437	HP OmniStudio X 27-cs1006ci All-in- One PC			2* 921 819 = 1 843 638		50/50	12 month	
438	Microsoft Office Home and Business 2024			2* 172,000 = 344,000		50/50	12 month	
439	Pro System Unit Tower 400 G9 TWR i7-14700			559,994		50/50	12 month	
440	MFP Canon MF463dw, i- SENSYS, 5951C008AA			258 342		50/50	12 month	

441	All-in-one HP OmniStudio 32-c0009ci			1,196,818.37		50/50	12 month	
442	External storage			94,990		50/50	12 month	
443	Wireless mouse			10,990		50/50	12 month	
444	HP Laserjet M111a A4			69,990		50/50	12 month	
445	Development and manufacture of a system for monitoring and automatic control of the operating parameters of a steam electric vacuum heater (SEVH) with the integration of temperature, pressure and power sensors			2,200,000		50/50	12 month	
446	Monoblock and components			447,076.16		50/50	12 month	
447	A4 paper Snow Maiden, 80g/m ² , 500 sheets			10*2456=24,560		50/50	12 month	
448	Schmidt's hammer			1,381,728		50/50	12 month	
449	USB Type -C SSD External 2TB, Kingston XS1000, Red			3*92,990=278,970		50/50	12 month	
450	A4 paper Snow Maiden, 80 g/m ²			25*2,390=59,750		50/50	12 month	

451	Comix B2950 Binding Machine			18,423		50/50	12 month	
452	All-in-one HP OmniStudio 27-cs0010ci			2*1,090,435= 2,180,870		50/50	12 month	
453	Angle grinder ALTECO AG 2010-180			33 196		50/50	12 month	
454	Wanbo Projector New T2 Max			108,000		50/50	12 month	
455	Mr.Pixel ECO Tripod Screen			26,000		50/50	12 month	
456	System unit, USB Type -C SSD			782263.7		50/50	12 month	
457	Computer included			2*1,746,180= 3,492,360		50/50	12 month	
458	MFP HP LaserJet M430f, A4, 38ppm, print 1200x1200dpi, scan 600x600dpi, LCD, LAN, USB, ADF			2*365 183 = 730 366		50/50	12 month	
459	HP CF259A Black Toner Cartridge , HP 404dn			2* 79,990= 159,980		50/50	12 month	
460	Selection and sample preparation			1,785,715		50/50	12 month	
461	DeWALT DCH133M1-QW Cordless Hammer Drill			227,300		50/50	12 month	

462	Bosch drill 6*100*160mm			1716		50/50	12 month	
463	Gross Quadro 8*260mm drill			2700		50/50	12 month	
464	Bosch drill 10*150*210mm			3300		50/50	12 month	
465	Bosch drill 12*150*210mm			3600		50/50	12 month	
466	Personal computer			2,448,048		50/50	12 month	
467	Monolithic polycarbonate			4 216 100		50/50	12 month	
468	HP LaserJet M430f MFP			331 531		50/50	12 month	
469	Lenovo 16" Laptop Backpack Legion GB400, Gray			25,800		50/50	12 month	
470	USB 3 HDD External 4TB 3.5", Transcend StoreJet 35T3, SATA, Black			88,500		50/50	12 month	
471	Magnetic drilling machine BDS MAB- 845			5,840,000		50/50	12 month	
472	System unit on Intel Core			812 490		50/50	12 month	
473	Asus S3607QA laptop			539,990		50/50	12 month	
474	27" Xiaomi A27i Monitor			55,990		50/50	12 month	
475	Fstyler FX60H Keyboard			16,990		50/50	12 month	

476	Adata SE760 256GB External SSD			21,690		50/50	12 month	
477	Defender speakers Aurora S20			19,990		50/50	12 month	
478	DeWALT DCD800E2T-QW Cordless Drill Driver			249,990		50/50	12 month	
479	Epson EB-W51 Projector			506 446		50/50	12 month	
480	Consumables for grinding machine			2 899 164, 28		50/50	12 month	
481	Stationery			26 020, 51		50/50	12 month	
482	Stationery in stock			159 147		50/50	12 month	
483	Monitor 27" MSI MAG274URFW, White , Rapid IPS			3* 290,000 = 870,000		50/50	12 month	
484	Computer and software			3,217,511		50/50	12 month	
485	Stationery in stock			131,456		50/50	12 month	
486	HP EliteOne 870 G9 All-in-One PC, 27" QHD, Core i7- 14700/16GB/1TB/U HD Graphics 770/W11P			1 132 61 2		50/50	12 month	
487	Interactive panel 75" Dahua DHI-LPH75- MC480-U, VA, 4K, 8GB, 128GB, Black			861 243		50/50	12 month	

488	Stationery in stock			109,355		50/50	12 month	
489	Wooden Tripod GST101, Wooden tripod with shoulder strap / GST101			101,076		50/50	12 month	
490	Paper and stationery			34,316		50/50	12 month	
491	All-in-one HP EliteOne 870 G9, 27"QHD, Core i7- 14700/16GB/1TB/U HD Graphics 770/W11P			2*1,061,372= 2,122,744		50/50	12 month	
492	All-in-one HP EliteOne 840 G9, 23.8"FHD, Core i7- 14700/16GB/512GB /UHD Graphics 770/W11P			924 214		50/50	12 month	
493	Glossy paper			15,496.7		50/50	12 month	
494	A4 paper Snow Maiden			20*2590= 51,800		50/50	12 month	
495	Computer and software			1,500,000		50/50	12 month	
496	T al electric			115,343		50/50	12 month	
497	End mill			27,910		50/50	12 month	
498	End mill			96,000		50/50	12 month	

499	HSS metal drill P6M5 d20			2* 19,500= 39,000		50/50	12 month	
500	HSS metal drill P6M5 d16			2*10 492= 20 984		50/50	12 month	
501	HSS metal drill P6M5 d14			6,400		50/50	12 month	
502	Rolling bearing APP 6008			6*4320=25,9 20		50/50	12 month	
503	Cablexpert TK- Electric Tool Kit			81 170		50/50	12 month	
504	SLIDING -500 drive			518 557		50/50	12 month	

Note: Commercial offers should be sent by e-mail INTP.department@ktu.edu.kz

Director of the Department of Science and Innovation

B.D. Suleev