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# **Annex 1\_Technical Specifications - English Version**

**ANNEX 1\_TECHNICAL SPECIFICATIONS -  
ENGLISH VERSION**

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# X1. COMPUTER & ACCESSORY

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X1.1. Notebook	<p><b>DESIGN</b></p> <ul style="list-style-type: none"> <li>• <b>Body Material:</b> Aluminum (Excluding Screen Frame)</li> </ul> <p><b>DISPLAY</b></p> <ul style="list-style-type: none"> <li>• <b>Screen Size:</b> 16.0 inches</li> <li>• <b>Screen Resolution:</b> At least 2560 x 1600 pixels</li> <li>• <b>Screen Resolution Format:</b> At least QHD+</li> <li>• <b>Refresh Rate:</b> At least 60 Hz</li> <li>• <b>Brightness:</b> At least 400 nits</li> <li>• <b>Panel Type:</b> IPS (LED)</li> <li>• <b>Aspect Ratio:</b> 16:10</li> <li>• <b>Additional Screen Features:</b> At least 100% sRGB, Dolby Vision, TÜV Rheinland EyeSafe® low blue light</li> </ul> <p><b>MEMORY</b></p> <ul style="list-style-type: none"> <li>• <b>RAM:</b> At least 32 GB</li> <li>• <b>Memory Frequency:</b> At least 5200 MHz</li> <li>• <b>Memory Type:</b> DDR5</li> <li>• <b>Total Memory Slots:</b> At least 2</li> </ul> <p><b>STORAGE &amp; OPTICAL DRIVE</b></p> <ul style="list-style-type: none"> <li>• <b>SSD Size:</b> At least 1 TB</li> <li>• <b>SSD Type:</b> NVMe M.2 (PCIe 4.0)</li> <li>• <b>Storage Support:</b> At least 2 x M.2 SSD PCIe 4.0</li> </ul> <p><b>PROCESSOR</b></p> <ul style="list-style-type: none"> <li>• <b>Processor:</b> Intel i7 13<sup>th</sup> generation</li> <li>• <b>Base Frequency:</b> At least 3.70 GHz</li> <li>• <b>Boost Frequency:</b> At least 5.00 GHz</li> <li>• <b>Cores:</b> At least 14</li> <li>• <b>Cache:</b> At least 24 MB</li> <li>• <b>PassMark Score:</b> At least 27,000</li> </ul> <p><b>INTEGRATED GRAPHICS</b></p> <ul style="list-style-type: none"> <li>• <b>Max Frequency:</b> 1.5 GHz</li> <li>• <b>Additional Features:</b> DirectX 12.1, Multi-Format Codec Engines 2, OpenCL 3.0, OpenGL 4.6</li> </ul> <p><b>DEDICATED GRAPHICS</b></p> <ul style="list-style-type: none"> <li>• <b>GPU Memory Capacity:</b> At least 8 GB</li> <li>• <b>GPU Core Speed:</b> At least 1470 MHz</li> <li>• <b>GPU Max Core Speed:</b> At least 2370 MHz</li> <li>• <b>GPU Memory Type:</b> At least GDDR6</li> <li>• <b>GPU Memory Interface:</b> At least 128-bit</li> <li>• <b>Additional GPU Features:</b> DirectX 12 Ultimate, DLSS 3 (Super Resolution + Frame Generation), PCI Express Gen 4</li> </ul> <p><b>CONNECTIVITY &amp; INTERFACES</b></p> <ul style="list-style-type: none"> <li>• <b>USB 3.x Ports:</b> At least 2</li> <li>• <b>USB 3.x Specifications:</b> USB 3.2 Gen 2 (10 Gbps)</li> <li>• <b>USB Type-C Ports:</b> At least 2</li> <li>• <b>USB Type-C Features:</b> DisplayPort 1.4, Thunderbolt 4</li> <li>• <b>Fast Charging via USB Type-C:</b> Supported</li> <li>• <b>HDMI Version:</b> At least 1 HDMI 2.1 port</li> <li>• <b>Bluetooth Version:</b> At least 5.1</li> <li>• <b>Wi-Fi Technology:</b> At least Wi-Fi 6E (802.11ax)</li> </ul>

	<p><b>OTHER FEATURES</b></p> <ul style="list-style-type: none"> <li>• <b>Keyboard:</b> Smart Sensor Backlit Turkish Q Keyboard</li> <li>• <b>Card Reader:</b> 1 x SD Card Reader</li> <li>• <b>Camera:</b> 1080p Infrared (Privacy Shutter Included)</li> <li>• <b>Microphone:</b> 2 Microphones</li> <li>• <b>Speakers:</b> At least 2x2W, Dolby Atmos</li> <li>• <b>Battery Capacity:</b> At least 80.0 Wh</li> <li>• <b>Battery Features:</b> Integrated Li-Po (Lithium-Polymer), Fast Charging, 4 cell</li> </ul> <p><b>OPERATING SYSTEM</b></p> <ul style="list-style-type: none"> <li>• <b>OS:</b> Windows 11 Pro</li> </ul> <p><b>WARRANTY AND TECHNICAL SERVICE</b></p> <ul style="list-style-type: none"> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X1.2. Tablet	<ul style="list-style-type: none"> <li>• <b>Screen Size:</b> At least 13.0 inches</li> <li>• <b>Screen Resolution:</b> At least 2732 x 1848 pixels</li> <li>• <b>Refresh Rate:</b> At least 60 Hz</li> <li>• <b>Brightness:</b> At least 600 nits</li> <li>• <b>Memory (RAM):</b> At least 8 GB</li> <li>• <b>Storage Capacity:</b> At least 512 GB</li> <li>• <b>Processor Frequency:</b> At least 3.40 GHz</li> <li>• <b>Processor Cores:</b> At least 8</li> <li>• <b>Rear Camera:</b> At least 12 MP</li> <li>• <b>Front Camera:</b> At least 12 MP</li> <li>• <b>USB Type-C:</b> Available</li> <li>• <b>Bluetooth Version:</b> At least 5.3</li> <li>• <b>Wi-Fi Technology:</b> At least Wi-Fi 6E (802.11ax)</li> <li>• <b>Battery Capacity:</b> At least 9700 mAh</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X1.3. Desktop Computer for Video Editing	<ul style="list-style-type: none"> <li>• Must have at least i7 13th Gen processor.</li> <li>• Must have at least 64 GB DDR5 RAM, at least 6000 Mhz, 2 open RAM slots</li> <li>• Must have at least RTX 4070, 12 GB DDR6, HDMI, DisplayPort dedicated graphics card.</li> <li>• Must have 1 TB PCIe Gen4 x4 NVMe M.2 SSD.</li> <li>• Must have ATX case with at least one USB 3.2 port on the front panel.</li> <li>• Must support at least 2.5GbE LAN and Wi-Fi 6E 802.11ax.</li> <li>• Motherboard must support 1700p socket, at least 4000 MHz, and at least Z790 chipset.</li> <li>• Must have a liquid cooling system for the processor with a minimum radiator size of 360 mm and at least 3 fans.</li> <li>• Must include a wireless keyboard and mouse set.</li> <li>• Must have at least Windows 11 Home.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>

## X2. MONITORS & DISPLAYS

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X2.1 Smart Screen	<ul style="list-style-type: none"> <li>• <b>Screen Size (inches):</b> At least 65"</li> <li>• <b>Screen Resolution:</b> At least UHD 4K (3840x2160)</li> <li>• <b>Screen Features:</b> At least 1.6 billion colors, anti-glare, minimum 4mm tempered protection glass</li> <li>• <b>Touchscreen:</b> At least Infrared, multi-touch with 32 points</li> <li>• <b>Brightness (nits):</b> At least 350 cd/m<sup>2</sup></li> <li>• <b>Input/Output Ports:</b> <ul style="list-style-type: none"> <li>○ At least 1 HDMI</li> <li>○ At least 3 USB</li> <li>○ At least 1 VGA</li> <li>○ At least 1 audio input and output</li> </ul> </li> <li>• <b>Processor:</b> At least Intel i5</li> <li>• <b>Memory (RAM):</b> At least 8 GB</li> <li>• <b>Hard Disk:</b> At least 256 GB SSD</li> <li>• <b>Graphics Card:</b> At least 2 GB Onboard, DirectX, OpenGL ES</li> <li>• <b>Network Connectivity:</b> RJ45 (LAN) + Wi-Fi + Bluetooth</li> <li>• Automatic shutdown sensor</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X2.2. All in One PC	<p><b>DISPLAY</b></p> <ul style="list-style-type: none"> <li>• <b>Screen Size:</b> At least 23.8 inches</li> <li>• <b>Screen Resolution:</b> At least FHD (1920x1080)</li> <li>• <b>Resolution Format:</b> At least FHD</li> <li>• <b>Refresh Rate:</b> At least 60 Hz</li> <li>• <b>Brightness:</b> At least 250 nits</li> </ul> <p><b>MEMORY</b></p> <ul style="list-style-type: none"> <li>• <b>RAM:</b> At least 32 GB</li> <li>• <b>Memory Frequency:</b> At least 6000 MHz</li> <li>• <b>Memory Type:</b> At least DDR4</li> <li>• <b>Total Memory Slots:</b> At least 2, 2 open RAM slots</li> </ul> <p><b>STORAGE &amp; OPTICAL DRIVE</b></p> <ul style="list-style-type: none"> <li>• <b>SSD Size:</b> At least 512 GB</li> <li>• <b>SSD Type:</b> NVMe M.2 (PCIe)</li> <li>• <b>Storage Support:</b> At least 2 x M.2 SSD PCIe</li> </ul> <p><b>PROCESSOR</b></p> <ul style="list-style-type: none"> <li>• <b>Base Frequency:</b> At least 1.70 GHz</li> <li>• <b>Boost Frequency:</b> At least 5.00 GHz</li> <li>• <b>Cores:</b> At least 10</li> <li>• <b>Cache:</b> At least 12 MB</li> <li>• <b>PassMark Score:</b> At least 14,000</li> </ul> <p><b>CONNECTIVITY &amp; INTERFACES</b></p> <ul style="list-style-type: none"> <li>• <b>USB Ports:</b> At least 2 x USB 3.2</li> <li>• <b>USB Type-C:</b> At least 1</li> <li>• <b>HDMI Version:</b> At least 1 HDMI port</li> <li>• <b>Bluetooth:</b> At least 5.1</li> <li>• <b>Wi-Fi Technology:</b> At least Wi-Fi 6</li> </ul> <p><b>OTHER FEATURES</b></p> <ul style="list-style-type: none"> <li>• <b>Keyboard/Mouse:</b> Included in the package (USB Wired/Wireless Keyboard - Turkish layout + Mouse)</li> <li>• <b>Camera:</b> At least 5 MP with a privacy shutter, integrated microphone</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Audio Ports:</b> 1 x Headphone and Microphone Jack (3.5 mm)</li> <li>• <b>Ethernet Port:</b> 1 x RJ-45</li> <li>• <b>Built-in Speakers:</b> Required</li> </ul> <p><b>OPERATING SYSTEM</b></p> <ul style="list-style-type: none"> <li>• OS: Windows 11 Pro</li> </ul> <p><b>WARRANTY AND TECHNICAL SERVICE</b></p> <ul style="list-style-type: none"> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X2.3. 65" Led TV	<ul style="list-style-type: none"> <li>• Screen size must be at least 65".</li> <li>• Image quality must be at least 4K.</li> <li>• Screen resolution must be at least 3840 x 2160.</li> <li>• Brightness (nits) must be at least 350 cd/m<sup>2</sup>.</li> <li>• Must have a built-in satellite receiver.</li> <li>• Must have wireless connectivity (Wi-Fi).</li> <li>• Must have Ethernet, HDMI, and USB inputs.</li> <li>• Operating system must be Android.</li> <li>• Must have TV wall mount.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X2.4. Monitor for Video Editing	<ul style="list-style-type: none"> <li>• Must be 32" 16:9 FHD.</li> <li>• Must have at least 120 Hz.</li> <li>• Must have at least 2 HDMI ports and 1 DisplayPort.</li> <li>• Must have built-in speakers.</li> <li>• Response time must be at least 1 ms.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>

## X3. IMAGING & VIDEO

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X3.1. Action Camera	<ul style="list-style-type: none"> <li>• Must have a 1-inch CMOS-type sensor.</li> <li>• The maximum aperture should be f2 or lower.</li> <li>• Must have at least 3-axis mechanical image stabilization.</li> <li>• Must include Wi-Fi and Bluetooth features.</li> <li>• Must include a compatible internal/external selfie stick with the camera.</li> <li>• Must have Active Track functionality.</li> <li>• Must include a protective case.</li> <li>• Must include a high-capacity battery of the same brand.</li> <li>• Must include a mini tripod of the same brand.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X3.2. Photographic camera	<ul style="list-style-type: none"> <li>• Must have a resolution of at least 32 megapixels.</li> <li>• Must feature an APS-C CMOS sensor.</li> <li>• Must include a Digic 8 or higher image processor.</li> <li>• Must have a Vari-Angle Screen.</li> <li>• Must be capable of recording Ultra HD 4K (3840 x 2160) video.</li> <li>• Must support burst shooting at a minimum of 10 fps.</li> <li>• The light sensitivity should go up to ISO 25600.</li> <li>• Must be under 750 grams.</li> <li>• Must be able to connect to smart devices and printers via Wi-Fi.</li> <li>• Must be compatible with SD / SDHC / SDXC memory cards.</li> <li>• Must include an original charger and battery.</li> <li>• Must include an 18-135mm lens of the same brand.</li> <li>• Must include a UV filter for the lens of the product.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X3.3. Photography Tripod	<ul style="list-style-type: none"> <li>• Weight must be at most 2 kg.</li> <li>• Must have up to 6 kg carrying capacity.</li> <li>• Height must be at least 40 cm when closed and 151 cm when open.</li> <li>• Must have 360 degree panoramic rotation feature.</li> <li>• Must include a bag of the same brand.</li> <li>• Must have a 4-level leg system.</li> <li>• Should include a stabilizer and safety lock.</li> <li>• Made from a special black-painted aluminum material.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X3.4. Camera Battery and Charger	<ul style="list-style-type: none"> <li>• Battery must be at least 1865 mAh.</li> <li>• Battery technology should be Lithium-Ion.</li> <li>• Output voltage must be at least 7.2 VDC.</li> <li>• Should include 1 original charger.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X3.5. Flash Unit	<ul style="list-style-type: none"> <li>• Must be compatible with E-TTL / E-TTL II.</li> <li>• Guide number should be 85.3 at ISO 100 and 50mm.</li> <li>• Coverage should be 24mm &amp; 50mm (Full Frame).</li> <li>• Must tilt 90° upwards.</li> <li>• Should rotate 150° to the left and 180° to the right.</li> <li>• Wireless Slave TTL functionality is required.</li> <li>• Recycling time: 0.1-5.8 seconds.</li> <li>• Should have Stroboscopic Mode, 1st and 2nd Curtain Sync.</li> </ul>



	<ul style="list-style-type: none"> <li>• Must include a mode dial.</li> <li>• Operates with two AA batteries.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X3.6. Camera Bag	<ul style="list-style-type: none"> <li>• Should have an ergonomic hand grip for portability.</li> <li>• Adjustable shoulder strap required.</li> <li>• Should be waterproof.</li> <li>• Must include internal and external compartments with padded foam supports.</li> <li>• Should have the capacity to hold at least 1 camera, 1 lens, and 1 battery.</li> </ul>

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X3.7. Video Camera Tripod	<ul style="list-style-type: none"> <li>• The load capacity must be 10 kg.</li> <li>• Should be made of aluminum material.</li> <li>• Must have a fluid head.</li> <li>• The head diameter should be 75 mm.</li> <li>• Should feature a bottom spider design.</li> <li>• A waterproof carrying case must be included.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X3.8. Capture Card	<ul style="list-style-type: none"> <li>• Should be capable of recording an HDMI or SDI signal via USB 3.0.</li> <li>• Must support 1920 x 1080p60 resolution with 3G-SDI and HDMI v1.4a input.</li> <li>• YUV 4:2:2 video output must be supported.</li> <li>• The audio and video standards must comply with UVC and UAC.</li> <li>• Should be compatible with Windows, Mac OS, and Linux operating systems.</li> <li>• Must work seamlessly with third-party capture software.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X3.9. Prompter Set	<ul style="list-style-type: none"> <li>• Panel dimensions must be 16" x 13" x 1.77" (40 cm x 32.5 cm x 4.5 cm).</li> <li>• Should include a 17" monitor with composite (BNC), HDMI, VGA, and SDI inputs.</li> <li>• Must support Bluetooth keyboards and mice, with an automatic text converter feature (Flip/Mirror) on the LCD panel.</li> <li>• The resolution must be 1280 x 1024.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X3.10. Environment Camera	<ul style="list-style-type: none"> <li>• Must have a 1/2.3" CMOS sensor.</li> <li>• A 24X optical zoom feature is required.</li> <li>• Should include 1 BNC (3G-SDI) video output.</li> <li>• Should include 2 XLR audio inputs (+48V Phantom).</li> <li>• Must include an original high-capacity battery of the same brand.</li> <li>• Must include a rainproof protective carrying case.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X3.11. Green background screen	<ul style="list-style-type: none"> <li>• Must include a 3x6M green backdrop.</li> <li>• A backdrop stand is required.</li> <li>• Four sandbags for weight support must be included.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>

## X4. AUDIO EQUIPMENT

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X4.1. Sound Card	<ul style="list-style-type: none"> <li>• Must allow switching between 3 sources and 2 monitor pairs.</li> <li>• Should be in a desktop form factor.</li> <li>• A USB interface is required.</li> <li>• Must support Mac OS X and Windows.</li> <li>• Mono, mute, and dim functions are necessary.</li> <li>• Should support condenser microphones with +48V phantom power.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X4.2. Microphone	<ul style="list-style-type: none"> <li>• Must have a balanced XLR, 3-pin male audio output.</li> <li>• The frequency response should be 20Hz-20kHz.</li> <li>• Polar patterns should include cardioid, omnidirectional, and figure-eight.</li> <li>• Power support should range from 44 to 52V voltage with <math>\leq 3\text{mA}</math> current.</li> <li>• A desktop microphone boom arm is required.</li> <li>• Shock mount and pop filter must be included.</li> <li>• Must support cardioid, omnidirectional, and figure-eight polar patterns.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X4.3. Audio Recording Headset	<ul style="list-style-type: none"> <li>• Impedance must be 18 Ohms.</li> <li>• Frequency range (speaker) should be 18-20,000 Hz (-10 dB).</li> <li>• Total Harmonic Distortion (THD) must be <math>&lt;0.5\%</math> (1 kHz, 100 dB SPL).</li> <li>• Input jack should be 1x3.5mm.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X4.4. Wireless Microphone Set	<ul style="list-style-type: none"> <li>• Must have a high-contrast LCD screen.</li> <li>• Should feature 1680 adjustable UHF frequencies.</li> <li>• Bandwidth should be 42 MHz.</li> <li>• Must have an automatic frequency scanning feature.</li> <li>• Range should be up to 100 meters.</li> <li>• Input impedance must be 40 k<math>\Omega</math> unbalanced / 1 M<math>\Omega</math>.</li> <li>• The signal-to-noise ratio should be <math>\geq 110</math> dBA.</li> <li>• The power supply must be 3V (2*AA 1.5V batteries).</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X4.5. Audio Recorder	<ul style="list-style-type: none"> <li>• Should be suitable for users who stream podcasts or live broadcasts via the internet.</li> <li>• Should include a monitor headphone output for up to 4 people.</li> <li>• Must allow a phone call to be connected to the broadcast during a live session via a TRSS cable, and also be user-friendly and easy to connect to a computer.</li> <li>• Should have at least the following specifications: <ul style="list-style-type: none"> <li>○ Simultaneous Rec Tracks: 4 (SD card)</li> <li>○ Simultaneous Play Tracks: 4 (SD card)</li> <li>○ Sample Rate: 44.1 kHz</li> <li>○ Bit Depth: 16-bit</li> <li>○ Compression: Yes</li> <li>○ Phantom Power: Yes</li> <li>○ Number of Microphone Preamps: 4</li> <li>○ Audio Interface: Yes</li> <li>○ PC Connection: USB (2 x 2)</li> <li>○ Analog Inputs: 2 x XLR (mic), 2 x XLR (mic/line), 1 x 1/8" TRRS (BTA-2)</li> <li>○ Analog Outputs: 4 x 1/8" TRS (headphones)</li> <li>○ USB: 1 x USB-C (audio), 1 x USB-C (power)</li> <li>○ Memory: SD Card Slot; SDHC (32GB max), SDXC (512GB max)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Power Support: 2 x AA batteries / USB 5V DC</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X4.6. Microphone Set	<ul style="list-style-type: none"> <li>• Must include at least 1 handheld microphone and 1 clip-on (lavalier) wireless microphone.</li> <li>• Should have adjustable frequencies.</li> <li>• Must be compatible with either handheld or belt (lavalier) transmitters.</li> <li>• Should support a maximum of 10 (or 20) channels in the 1.9 GHz DECT frequency band range.</li> <li>• Should feature automatic frequency/channel scanning and matching with the "PAIR" function to find available frequencies.</li> <li>• The maximum RF transmission power should be 250mW adaptive (automatically adjustable broadcast power).</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X4.7. Headphone Amplifier	<ul style="list-style-type: none"> <li>• Must be a 4-channel amplifier.</li> <li>• Should support high output (150mW per channel).</li> <li>• Must have level-controlled control room monitor outputs.</li> <li>• Mono/stereo selection should be available.</li> <li>• The TRS input impedance must be 10K Ohm.</li> <li>• The monitor output should range from -80dB to +10dB.</li> <li>• The TRS output impedance (balanced) should be 51 Ohm.</li> <li>• The signal-to-noise ratio must be &gt;95dB.</li> <li>• The headphone level should range from 1 to 12.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X4.8. Speaker	<ul style="list-style-type: none"> <li>• The bass speaker must be 5".</li> <li>• The frequency range should be 50Hz-20kHz (-10dB).</li> <li>• The treble speaker must be 0.75".</li> <li>• The input types should include: 1 x 1/8" (aux), 2 x 1/4", and 1 x dual RCA stereo.</li> <li>• The output types should include: bare wire connectors (+/-), and 1 x 1/8" (headphones).</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>

## X5. LIGHTING AND VISUAL

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X5.1. Smart Screen Stand	<ul style="list-style-type: none"> <li>• Must be compatible with 55"-65"-75-85" interactive boards and TVs.</li> <li>• Must have a carrying capacity of 100 kg.</li> <li>• Must have adjustable height.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X5.2. Lighting Equipment	<ul style="list-style-type: none"> <li>• Must include 2 pieces of lighting equipment in a set.</li> <li>• Must support 100V-240V, 50/60Hz power.</li> <li>• Should feature a 5600K ± 200K adjustable color temperature.</li> <li>• Must support 2.4GHz control, Bluetooth app, and on-light control options.</li> <li>• Should be compatible with 55", 65", 75", and 85" interactive whiteboards and TVs.</li> <li>• Must have a maximum power of 160W.</li> <li>• The maximum weight should be 3kg.</li> <li>• Must include a 90x90 square softbox.</li> <li>• A light stand must be included.</li> <li>• A protective cover should be included.</li> <li>• Should include a bowl reflector.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>

## X6. STORAGE AND BACKUP

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X6.1. Memory Card	<ul style="list-style-type: none"> <li>• Must be at least 128GB.</li> <li>• Speed Class rating must be Class 10.</li> <li>• UHS classification must be UHS-II.</li> <li>• Must have a transfer speed of at least 200 Mbps.</li> <li>• Must include an SD card adapter.</li> <li>• Memory Card Type must be SDXC.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X6.2. Digital Video and Visual Archive	<ul style="list-style-type: none"> <li>• Must include;               <ul style="list-style-type: none"> <li>○ stock videos,</li> <li>○ video templates,</li> <li>○ music files,</li> <li>○ sound effects,</li> <li>○ graphic elements,</li> <li>○ presentation templates,</li> <li>○ photos,</li> <li>○ illustrations,</li> <li>○ fonts,</li> <li>○ website templates.</li> </ul> </li> <li>• License duration should be 1 year.</li> <li>• Must support at least 2 users.</li> </ul>
x6.3. Portable SSD	<ul style="list-style-type: none"> <li>• Capacity: At least 4 TB</li> <li>• Interface: USB 3.2 Gen 2</li> <li>• Write Speed: At least 2000 MB/s</li> <li>• Read Speed: At least 2000 MB/s</li> <li>• Encryption: 256-bit data encryption</li> <li>• Shock Resistant</li> <li>• Water and Dust Resistance: IP55</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>

## X7. SOFTWARE

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X7.1. Software Required for Editing, Montage, etc.	<ul style="list-style-type: none"> <li>• Adobe Cloud Applications (1 Year License).</li> <li>• The requested products must be multilingual.</li> <li>• The requested products must be installable on different operating systems.</li> <li>• Purchased products must aim for uninterrupted operation (365 days, 24 hours).</li> <li>• The latest versions of the software must be provided.</li> <li>• Software must be reliable and free of operating errors.</li> <li>• Created content must be usable on widely used operating systems and viewable on mobile platforms.</li> <li>• Must enable development for the most common server technologies and operating systems for designers and developers using Mac and/or Windows machines.</li> </ul> <p>Software must include the following programs:</p> <ul style="list-style-type: none"> <li>- Photoshop (Image editing and merging)</li> <li>- Lightroom (Digital photo processing and editing)</li> <li>- Illustrator (Vector graphics and illustrations)</li> <li>- InDesign (Page design and layout for print and digital publishing)</li> <li>- Spark</li> <li>- Premiere Pro (Video production and editing)</li> <li>- After Effects (Cinematic visual effects and motion graphics)</li> <li>- InCopy</li> <li>- Dreamweaver (Designing and developing modern and compliant websites)</li> <li>- Muse (Designing and publishing websites without coding)</li> <li>- Acrobat Pro (Creating and editing PDF documents and forms)</li> <li>- Animate</li> <li>- Audition (Audio recording, mixing, and restoration)</li> </ul>
X7.2. Microsoft Office Software	<ul style="list-style-type: none"> <li>• Must be installable on different operating systems.</li> <li>• Software must include the following programs:               <ul style="list-style-type: none"> <li>- Excel 2021</li> <li>- Word 2021</li> <li>- PowerPoint 2021</li> <li>- OneNote 2021</li> </ul> </li> <li>• 1 Year license.</li> </ul>
X7.3. Video Capture Software	<ul style="list-style-type: none"> <li>• The maximum resolution must be 1920 x 1080.</li> <li>• Should have an instant recording feature.</li> <li>• Professional color correction capabilities are required.</li> <li>• The ability to create playlists should be available.</li> <li>• Must support streaming to 3 different live broadcasts simultaneously.</li> <li>• Animated text characters should be available within the software.</li> <li>• Full-screen output must be possible.</li> <li>• Should support up to 1000 (one thousand) inputs.</li> <li>• 1 Year license.</li> </ul>



## X8. CONNECTIVITY AND ACCESSORIES

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X8.1. Triple socket	<ul style="list-style-type: none"> <li>• Must be made of quality plastic material.</li> <li>• Must be grounded, child-proof, include a mounting bracket with guide pins on the bracket.</li> <li>• The product must have a power switch.</li> <li>• Product must be CE certified and come with at least 2 years warranty.</li> <li>• Length: 5 meter</li> </ul>
X8.2. Quintuple socket	<ul style="list-style-type: none"> <li>• Must be made of quality plastic material.</li> <li>• Must be grounded, child-proof, include a mounting bracket with guide pins on the bracket.</li> <li>• The product must have a power switch.</li> <li>• Product must be CE certified and come with at least 2 years warranty.</li> <li>• Length: 5 meter</li> </ul>
X8.3. HDMI cable	<ul style="list-style-type: none"> <li>• Must be a 4K 18Gbps 60Hz HDMI cable, providing high-quality audio and video transmission in UHD 4K resolution at 60 Hz.</li> <li>• Must be a braided cable with premium HDMI certification. Must have been tested and approved for all HDMI 2.0 features.</li> <li>• Must provide fast data transfer of up to 18Gbps.</li> <li>• The cable must have Ethernet capabilities, enabling bidirectional information flow between TV and devices.</li> <li>• Must be compatible with many devices with HDMI outputs such as Blu-Ray Players, 3D TVs, Roku, Boxee, Xbox360, PS3, Apple TV.</li> <li>• Must have an oxygen-free copper gold-plated structure and an aluminum body around the connector for protection against wear and corrosion.</li> <li>• Must be braided and made of PVC material for the outer shell.</li> <li>• Must be black, support 4K resolution, 4K, 1080p, and 3D image technologies with a data transfer speed of 18 Gbps.</li> <li>• User manual must be included with the product. Product must be CE certified and come with at least 2 years warranty.</li> <li>• Length: 5 meter</li> </ul>

## X9. OTHER

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X9.1. Multifunction Color Printer	<ul style="list-style-type: none"> <li>• Must have photocopy and scanning features.</li> <li>• Scanning resolution must be at least 600 DPI.</li> <li>• Must have double-sided printing capability.</li> <li>• Must be a multifunctional laser printer capable of producing black and white and color prints.</li> <li>• Must have at least 512 MB of memory.</li> <li>• Must print at least 27 pages per minute in both black and white and color.</li> <li>• Must have a touchscreen color graphic display.</li> <li>• Must support Wi-Fi and Ethernet connectivity.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X9.2. 3D printer	<ul style="list-style-type: none"> <li>• Must use FDM printing technology.</li> <li>• Build volume must be 220x220x250mm.</li> <li>• Must have at least the following features:               <ul style="list-style-type: none"> <li>- Extruder Type: Dual gear direct drive extruder</li> <li>- Nozzle Type: 1 Brass Nozzle</li> <li>- Nozzle Diameter: Standard 0.4mm</li> <li>- Print Accuracy: 100±0.1mm</li> <li>- Layer Height: 0.1-0.35mm</li> <li>- Print Speed: ≤600mm/s</li> <li>- Acceleration: ≤20000mm/s<sup>2</sup></li> <li>- Filament Diameter: 1.75mm</li> <li>- Maximum Nozzle Temperature: ≤300°C</li> <li>- Heated Bed Temperature: ≤100°C</li> <li>- Build Surface: Flexible Build Plate</li> <li>- Power Loss Recovery: Yes</li> <li>- Filament End Sensor: Yes</li> <li>- Nominal Voltage: 100-120V~, 200-240V~, 50/60Hz</li> <li>- Rated Power: 350W</li> <li>- File Transfer: USB Memory, Wi-Fi</li> <li>- File Formats: STL, OBJ, AMF</li> <li>- Supported Filaments: ABS, PLA, PETG, PET, TPU, PA, ABS, ASA, PC, PLA-CF, PA-CF, PET-CF</li> </ul> </li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X9.3. Filament	<ul style="list-style-type: none"> <li>• PLA in different colors</li> </ul>

CODE HARDWARE	TECHNICAL SPECIFICATIONS
X9.4. Robotic Set	<ul style="list-style-type: none"> <li>• Hub (Microcontroller): <ul style="list-style-type: none"> <li>○ At least 6 input ports</li> <li>○ At least 6-axis Gyroscope</li> <li>○ LCD screen or at least a 5x5 light matrix</li> <li>○ Built-in speaker</li> </ul> </li> <li>• At least 2 angled motors</li> <li>• At least 1 color sensor</li> <li>• At least 1 distance sensor</li> <li>• At least 1 force sensor</li> <li>• Bluetooth connectivity</li> <li>• All parts should be interlocking.</li> <li>• All components should be provided in a single box.</li> <li>• Should support block-based (icon and text) and text-based coding.</li> <li>• Must have at least a 24-month warranty.</li> <li>• Must have widespread technical service availability in Türkiye.</li> </ul>
X9.5. Notebook Bag	<ul style="list-style-type: none"> <li>• Should be sized appropriately to carry a 16" notebook.</li> <li>• Must have a sturdy handle for hand carrying.</li> <li>• An adjustable, removable shoulder strap should be included.</li> <li>• The laptop compartment should be padded and shockproof.</li> <li>• Must be made from water-resistant, waterproof material.</li> <li>• Should have reinforced corners for additional impact protection.</li> <li>• Must have at least a 24-month warranty.</li> </ul>
X9.6. Bluetooth Mouse	<ul style="list-style-type: none"> <li>• Mouse Form: Right-handed</li> <li>• Connection Type: At least Bluetooth 5.3</li> <li>• Sensor Technology: Laser</li> <li>• Sensitivity (DPI): At least 1800 DPI</li> <li>• Keys: Should have noise-reduced buttons</li> <li>• Scroll Wheel: Must have a scroll wheel</li> <li>• Must have at least a 24-month warranty.</li> </ul>