
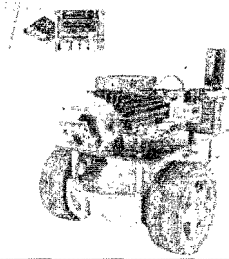

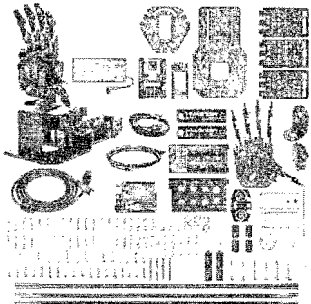






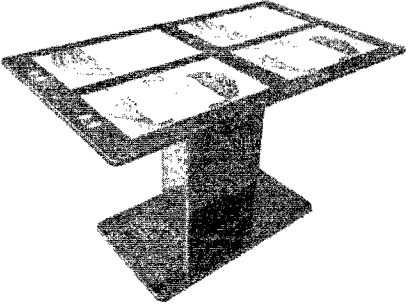
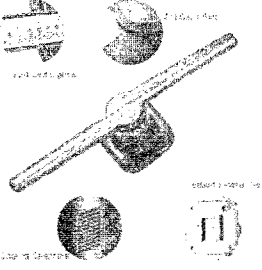

National Centre for Physics
Detailed specification Document

A-305

	Description/Specifications	A/U	Quantity
1.	<p>DJI Matrice 30T Enterprise Drone With accessories (Used globally) or Equivalent Product Key Features Maximum Flight Time 41 min Maximum Control Range 22966 ft (7000 m) Camera Features Wide Angle Lens, 4K HD Video Recording Type Professional Drone Connectivity Remote Control, Wi-Fi Connection</p> 	No	1
2.	<p>Yahboom Jetson Nano 4GB Robotic Jetbot Mini AI Programmable Python Robot Kit ROS Starter for University (4GB Ver Jetbot Mini with Nano 4GB) Brand Yahboom or Equivalent Model Name Jetson Nano Ram Memory Installed Size 4 GB Connectivity Technology USB Included Components jetbot mini robot kit</p> 	No	1
3.	<p>Meta Quest 3 or Equivalent Hardware PC: All-in-one VR with headset and controllers. Smartphone app required. Supports PC VR via Link Cable or Air Link. Tracking: Six Degrees of Freedom (6DOF) with inside-out tracking. Full head and body movement tracking without external sensors. Enhanced with depth sensor for better spatial awareness. Controllers: Redesigned Touch Plus Controllers. Improved ergonomics, no tracking rings, better haptics. Optics Specifications: Pancake Lenses 2064 × 2208 Resolution Per Eye 72, 80, 90, 120 Hz Refresh Rate Supported Glasses Compatible Full-color Passthrough (Mixed Reality support) Sound Positional Audio: Integrated 3D spatial audio. Built-in speakers. 3.5 mm audio jack available. Storage: 128GB / 512GB options</p> 	No	1

4.	<p>EMOTIV EPOC X 14 Channel Mobile Brainwear or Equivalent EEG sensors 14 channels: AF3, F7, F3, FC5, T7, P7, O1, O2, P8, T8, FC6, F4, F8, AF4 2 references: CMS/DRL references at P3/P4; left/right mastoid process alternative Sensor material: Saline soaked felt pads Connectivity Wireless: Bluetooth® Low Energy (improved connectivity with new antenna) Bluetooth® 5.0 Ready – We currently use Bluetooth® SMART (also known as Bluetooth 4.0 Low Energy Protocol) support for Bluetooth® 5.0 will be available with upcoming software and firmware updates. Proprietary USB receiver: 2.4GHz band USB: to change headset settings & Extender EEG signals Sampling method: Sequential sampling, single ADC Sampling rate: 2048 internal downsampled to 128 SPS or 256 SPS (user configured) Resolution: LSB = 0.51µV (14 bits mode), 0.1275µV (16 bits mode) Bandwidth: 0.16 – 43Hz, digital notch filters at 50Hz and 60Hz Filtering: Built in digital 5th order Sinc filter Dynamic range (input referred): 8400 µV(pp) Coupling mode: AC coupled Motion sensor IMU part: ICM-20948 Quaternions: normalized, 4D Resolution: 16 bits Available detections Mental Commands: neutral + up to 4 pre-trained items per training profile Performance Metrics: Excitement, Engagement, Relaxation, Interest, Stress, Focus Facial Expressions: Blink, Wink L/R, Surprise, Frown, Smile, Clench, Laugh, Smirk L/R Power Battery: Internal Lithium Polymer battery 595mAh Battery life: up to 12 hours using USB receiver, up to 6 hours using Bluetooth Low Energy</p>	No	1
5.	<p>Robot Hand: Product or Equivalent Robot Hand with Arduino UNO, Specs: Model:uHand UNO, Open Source AI Bionic Robotic Hand Five Fingers Solely Movement Mechanical Arm DIY, Supports Secondary Development, Includes: Glowing ultrasonic sensor, Touch sensor, Acceleration sensor, ESP32Cam Module, Type-C data cable, and 4PIN wire, uHand UNO Starter Kit with all Accessories</p> 	No	1

6.	<p>Lenovo ThinkPad X1 Carbon Gen 14 Aura Edition (14") or Equivalent Hardware PC: Ultra-light premium business laptop. Works standalone. Supports external displays and accessories via Thunderbolt 4.</p> <p>Tracking: Not applicable (standard laptop). Includes AI-based presence detection and security features.</p> <p>Input Devices: ThinkPad Keyboard (backlit) Glass Touchpad + TrackPoint Fingerprint reader + IR camera</p> <p>Display Specifications: 14-inch Display (16:10) 1920 × 1200 (IPS) or 2880 × 1800 (OLED) 60 Hz refresh rate Up to 500 nits brightness Touch and non-touch options available</p> <p>Performance: Intel Core Ultra 5 / 7 / X7 (Series 3) processors Integrated Intel Graphics / Intel Arc GPU AI NPU up to ~50 TOPS (Copilot+ PC)</p> <p>Memory (RAM): 16GB / 32GB / 64GB LPDDR5X (non-upgradable)</p> <p>Storage: 256GB / 512GB / 1TB / 2TB PCIe Gen 5 SSD</p> <p>Sound: Dolby Atmos speakers (2 tweeters + 2 woofers) Dual microphones with AI noise cancellation</p> <p>Battery: 58Wh battery Fast charging supported (USB-C)</p> <p>Connectivity: Wi-Fi 7, Bluetooth 5.4 Thunderbolt 4, USB-A, HDMI 2.1, 3.5mm jack</p> <p>Build & Weight: Carbon fiber + magnesium alloy ~1 kg weight (ultra-light)</p>		No	1
7.	<p>SAMSUNG Galaxy Tab S8 Ultra or Equivalent Super AMOLED, 120Hz, HDR10+ 14.6" Screen 128GB 8GB RAM Graphite Brand SAMSUNG Model Name SM-X900NZAAXAR Memory Storage Capacity 128 GB Screen Size 14.6 Inches. Display Resolution Maximum 1848 x 2960 Pixels</p>		No	1
8.	<p>Samsung Galaxy Tab A11 Plus X210 Wifi or Equivalent Specs: Storage:256GB, RAM: 12GB, OS: Android (latest), Size: 11 inch, Technology: GSM / HSPA / LTE / 5G, Sim Slot: 1</p>		No	1
9.	<p>Wacom Intuos Pro Graphic Drawing Tablet or Equivalent Product: Digital Graphic Drawing Tablet, Specs: Name: Wacom Intuos Pro, Size: 6×9 Inch, SKU: PTH-660/K0-CX, Brand: Wacom, Pressure Level: 8192 (both pen and tip), Wireless: Yes,Multi-touch: Yes, Crdless: Yes, Batter: Battery Free</p>		No	1

10.	<p>Digital Display: Advertising Indoor Capacitive touch screen control table or Equivalent Specs: Product Name: Coffee Touch Table, Model No: SD511C-TTD-DS, Size: 55 inch, Touch Screen: 10-Point Capacitive Touch, OS: Android & Windows, Installation: Floor Stanning with all Accessories</p>		No	1
11.	<p>Hologram: Product: 3D Hologram Advertising Machine Projector or Equivalent Specs: Type: Holographic Fans, Colour: Black, Resolution: 800 * 480, Rated Power: 15W-20W, Supported Formats: MP4/ AVI/ RMVB/ MKV/ GIF/ JPG/ PNG, Build-in Micro SD card: 16 GB (Max support 128GB), • Connection Mode: Wi-Fi Wireless Transmission, • Use Life: Life 100,000 Hours with all Accessories</p>		No	5
12.	<p>Hologram: Product: 3D Holographic Display Tranparent LCD Screen Hologram Projector Advertising Box or Equivalent, Specs: Type: Holographic Bin, Model Number: ZX750SH, Brand Name: Zhuxin (ZX), Panel Size: 75 inch, Projection: USB/ Screen mode/ Remote HCI, Screen: LCD (Floor Standing), OS: Android/ Windows 7 to 10, Installation: Floor Stanning, Features: AI digital signage software (Docking with customers' 3D models, importing Q&A data independently, not connecting with large models and Integrated ChatGPT) with all Accessories</p>		No	1
13.	<p>Labjack T7 or Equivalent Analog Inputs: 14 (AIN0-AIN13) Voltage Ranges: ± 10 V, ± 1 V, ± 0.1 V, ± 0.01 V (Appendix A-3-2-3) Resolution: T7: 16-bit T7-Pro: 24-bit Effective Resolution: T7: 16 bit Max Data Rate: 100000 samples/second in stream mode Sampling Modes: Configurable as single-ended or differential Extended Channels: The number of analog inputs can be extended to 84 with a MUX80 (AIN48-AIN127)</p>		NO	1
14.	<p>MetaBird (bird-style flapping wing UAV) MetaBird (bird-style flapping wing UAV) Range approx 150 m Weight < 10 g Wingspan ~33 cm</p>		NO	1

	Length ~17 cm Flight autonomy ~10 min Charge time ~12 min Speed adjustable 5–20 km/h Controlled via smartphone app (Bluetooth) Indoor and outdoor capable		
15.	MetaFly (insect-style flapping wing UAV) • Remote control 2.4 GHz • Range ~150 m • Weight ~9.5 g • Wingspan ~29 cm • Length ~19 cm • Flight autonomy ~8 min • Charge time ~12 min • Speed adjustable 5–20 km/h • Indoor and outdoor capable	No	1

**Note: All the components installed should be compatible with the system and each other.
Please tick the relevant box**

Installation
 Testing
 Commissioning
 Training

Warranty requirement
 Any other please specify _____

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