

萬鈞伯裘書院
2025-2026 年度
承投提供 STEM 教育設備供應商

招標編號：MKPC-T2526-011

附件一

Item	Description/ Specifications	Qty
1	<p>Microbit v2.0</p> <p>Processor: Nordic Semiconductor nRF52833</p> <p>Memory: 512kB Flash, 128kB RAM</p> <p>Interface: NXP KL27Z, 32kB RAM</p> <p>Microphone: MEMS microphone and LED indicator</p> <p>Speaker: on board speaker</p> <p>Logo touch: touch sensitive logo pin</p> <p>Edge Connector: 25Pin, 4 dedicated GPIO, PWM, I2C, SPI and ext. power. 3 ring pins for connecting crocodile clips/banana plugs. Notched for easier connection.</p> <p>I2C: Dedicated I2C bus for peripherals</p> <p>Wireless: 2.4Ghz Micro: bit Radio/BLE Bluetooth 5.0</p> <p>Power: 5V via Micro USB port, 3V via edge connector or battery pack. LED power indicator, Power off(push and hold power button)</p> <p>Current available: 200mA available for accessories</p> <p>Motion sensor: ST LSM303</p> <p>Software: C++, Make Code, Python, Scratch</p> <p>Size: 5cm(w) x 4cm(h)</p>	980

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2	<p>Environment Science Expansion Board V2.0 for micro:bit</p> <p>Power Supply: MicroUSB (5V) /Three 1.5V AAA Batteries (4.5V)</p> <p>Digital Port Output Voltage: 3.3V</p> <p>GPIO: I2C×2 P0 P1 P2 P8 P12 P13 P14 P15 P16</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">ML8511 UV Sensor</td><td style="padding: 5px;">Operating Temperature: -20°C~70°C Sensitive Area: UV-A, UV-B Sensitivity Wavelength: 280-390nm</td></tr> <tr> <td style="padding: 5px;">BME280 Environment Sensor</td><td style="padding: 5px;">Operating Current: 2mA Operating Temperature: -40°C~+85°C Temperature Measuring Range: -40°C~+85°C, Resolution 0.1°C, Deviation±0.5°C Humidity Measuring Range: 0~100%RH, Resolution 0.1%RH, Deviation±2%RH Response Time of Humidity Measurement: 1S Atmospheric Pressure Measuring Range: 300~1100hPa</td></tr> <tr> <td style="padding: 5px;">Waterproof Temperature Sensor</td><td style="padding: 5px;">Temperature Display Range: -10°C~+85°C (Deviation±0.5°C) Operating Temperature Range: -55°C~125°C Query Time: less than 750ms</td></tr> <tr> <td style="padding: 5px;">TDS Water Quality Sensor</td><td style="padding: 5px;">The TDS probe should not be used in water above 55°C. 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3	<p>Smart Science IoT Kit</p> <p>IoT Kit is developed based on IoT:Bit, a new breakout board compatible with science sensors such as the ultrasonic sensor, dust sensor, light sensor and water level sensor, including RTC Timing and WIFI module.</p> <p>IoT:bit:</p> <ul style="list-style-type: none"> (1) Intergrated ESP12F WiFi, RTC, earphone jack and passive buzzer (2)Adaptive for Building Blocks (4 standard spacing fixed holes) (3)Separately lead IIC interface, directly plug in OLED, BME280 and IIC,etc (4) Support Thingspeak/ IFTTT. <p>Component number</p> <p>IoT:bit 1</p> <p>OLED 1</p> <p>BME 280 1</p> <p>PIR sensor1</p> <p>Light sensor1</p> <p>Noise sensor 1</p> <p>Water level sensor 1</p> <p>soil moisture sensor1</p> <p>Sonar:bit 1</p> <p>Dust sensor 1</p> <p>180° servo 1</p>	640
4	<p>micro:bit Smart City Kit</p> <p>The Smart City Kit has a well-selection of IoT:bit, DHT11 sensor, soil moisture sensor, water level sensor, sonar:bit, servos and etc., we could use it to build such themes as the smart parking lot, transportation network, and river level monitoring</p> <p>1 x IoT:bit Internet WIFI extension board for micro:bit</p> <p>1 x LED-Green</p> <p>1 x LED-Yellow</p> <p>1 x LED-Red</p> <p>1 x DHT11 sensor</p> <p>1 x Sonar:bit</p> <p>1 x Soil moisture sensor</p> <p>1 x Water level sensor</p> <p>1 x OLED screen</p> <p>1 x EF92A 180° servo</p> <p>1 x micro USB cable</p> <p>Jumper wires</p>	80

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5	HUSKYLENS 2 AI Camera	420
	<p>Technical Specifications</p> <p>Processor: Kendryte K230 Dual-Core 1.6GHz</p> <p>AI Computing Power: 6 TOPS</p> <p>Memory: 1GB LPDDR4</p> <p>Storage: 8GB eMMC</p> <p>Image Sensor: GC2093, 2MP, 1/2.9", 60FPS</p> <p>Display: 2.4" IPS Touch Screen (640×480), Full-Lamination</p> <p>Buttons: 1 × Function Button</p> <p>Fill Lights: 2 × LEDs</p> <p>RGB Indicator: 1 × RGB LED</p> <p>Wi-Fi: 2.4GHz Wi-Fi 6 (Slot-in Module)</p> <p>Expandable Storage: 1 × TF Card Slot</p> <p>Microphone: Capacitive Silicon Microphone</p> <p>Speaker: 1W Acoustic Speaker</p> <p>Operating Voltage: 3.3–5V</p> <p>Power Consumption: 1.5–3W</p> <p>Dimensions: 70 × 58 × 19mm</p> <p>Net Weight: 90g</p> <p>Interfaces: Type-C, Gravity (I2C / UART), TF Card Slot</p> <p>Shipping List</p> <p>HUSKYLENS 2 AI Vision Sensor x 1</p> <p>M3 Screws x 6</p> <p>M3 Nuts x 6</p> <p>Mounting Bracket x 1</p> <p>Heightening Bracket x 1</p> <p>Gravity-4P Sensor Connector Cable (30cm) x 1</p> <p>Dual-Plug PH2.0-4P Silicone Cable (20cm) x 1</p> <p>Power Adapter Board x 1</p>	