

Parts Export

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Total Parts: 36

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
No Image	EDD-00004-A	7 Segment Display	ED - Electronic Device	Lite-On Technology, Kingbright, Generic / OEM	The 0.56" 1-Digit 7-Segment LED Display is a single-digit numeric display (0–9) using seven LED segments. It has a common cathode configuration with bright visibility. It is widely used in counters, clocks, meters, Arduino projects, and embedded systems.	Model: 7 Segment LED Display Digit Count: 1 Digit Display Size: 0.56 Inch Configuration Type: Common Cathode Emitting Color: Red Face Color: Black Number of Pins: 10 Forward Voltage (V): 1.8 – 2.2 (Typical for Red LED) Forward Current (mA): 20 (Typical) Mounting Type: PCB Through Hole Characteristics: High Brightness, Low Current Consumption, Easy to Use Length (Inch): 0.56 Shipping Weight: 0.02 kg Shipping Dimensions (L × W × H cm): 6 × 4 × 2	Arduino Compatible • 0.56" 7-Segment • 1 Digit Display • Red LED • Common Cathode • 5161AS • Through Hole • Numeric Display
	EDD-00004-B	7 Segment Display	ED - Electronic Device	Kingbright, Lite-On, Everlight, Broadcom	The Single Digit Common Anode 7-Segment Display is an LED display used to show numeric digits in electronic circuits. It offers bright, low-power number display and is easy to interface with microcontrollers. It is commonly used in Arduino projects, counters, timers, clocks, calculators, and control systems.	Display Type: 1 Digit 7 Segment LED Display Configuration: Common Anode Operating Voltage: 1.8V – 2.2V per Segment Number of Pins: 10 Pins Digit Height: 0.36 Inch – 0.56 Inch	Numeric Display • 7 segment display • common anode display • single digit display • LED display
No Image	EDS-00003-A	Temperature Sensor	ED - Electronic Device	Maxim Integrated, Dallas Semiconductor, Adafruit, SparkFun	The DS18B20 Temperature Sensor is a digital temperature sensor that provides accurate temperature measurements using the One-Wire communication protocol. It allows multiple sensors to share a single data line and delivers calibrated digital readings. The sensor is widely used in weather stations, automation systems, industrial monitoring, IoT devices, and Arduino projects.	Sensor Type: Digital Temperature Sensor Communication: One-Wire Interface Operating Voltage: 3.0V – 5.5V Temperature Range: -55°C to +125°C	Temperature Sensor • digital sensor • DS18B20 • one wire sensor • Arduino temperature sensor
	EDS-00005-A	IR Receiver Module	ED - Electronic Device	Vishay, Everlight, Sharp, Panasonic	The IR Receiver Module is an infrared sensor used to receive and decode signals from remote controls. It detects modulated IR light, typically at 38kHz, and converts it into digital signals for microcontrollers. It is widely used in Arduino projects, robotics, home automation, TV remote decoding, and embedded systems.	Sensor Type: Infrared Receiver Module Operating Voltage: 3.3V – 5V Carrier Frequency: 38kHz (typical) Detection Range: 5m – 10m (approx.) Wavelength: ~940nm Infrared	IR Receiver • Infrared Sensor • IR Decoder • IR remote sensor • TSOP sensor • Arduino IR module
	EDT-00005-A	Humidity Device	ED - Electronic Device	Aosong Electronics, Aosong Electronics, Bosch, Sensirion	The Humidity Sensor Module is a digital sensor used to measure relative humidity and moisture levels in the air. It provides reliable environmental data for weather stations, IoT systems, greenhouse monitoring, automation, and embedded electronics projects. It helps monitor climate conditions and supports applications requiring humidity control and environmental sensing.	Operating Voltage: 3.3V – 5V Humidity Range: 0% – 100% RH Humidity Accuracy: ±2% RH to ±5% RH Operating Temperature: -40°C to +125°C	Humidity Sensor • RH sensor • environmental sensor • digital sensor • air moisture sensor
	EMA-00007-A	7-Segment Display	EM - Electronic-Electrical Modules	Titan Micro Electronics, Keyestudio, DFRobot, SparkFun	The 4-Digit 7-Segment Display Module is an LED display used to show numbers, timers, counters, clocks, and sensor data. Many versions use the TM1637 driver IC, requiring only two signal pins for control. It is widely used in Arduino, automation, and embedded system projects.	Product Type: 4 Digit LED Display Module Display Type: 7 Segment LED Driver IC: TM1637 Digits: 4 Operating Voltage: 3.3V – 5V DC	4 Digit 7 Segment Display • TM1637 Display Module • 7 Segment LED Module • Digital Display Module

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	EMA-00009-A	Audio Playback	EM - Electronic-Electrical Modules	Nuvoton Technology Corporation, Generic / OEM	The ISD1820 Voice Recording & Playback Module supports up to 10 seconds of audio recording stored in non-volatile memory. It features an onboard electret microphone, push-button recording and playback controls, and support for external triggering through a microcontroller. Ideal for Arduino projects, voice prompts, alarms, interactive electronics, educational kits, and sound playback applications.	IC Chip: ISD1820 Operating Voltage (VDC): 3 – 5 Recording Duration: Up to 10 seconds Memory Type: Non-Volatile Analog Flash Microphone: Onboard Electret Microphone Speaker: 8 ?, 0.5W Speaker Cable Length (cm): 20 Speaker Diameter (mm): 40 Control Options: Push Buttons or Microcontroller Digital Pin Interface: 2.54 mm Header Pins Length (mm): 42 Width (mm): 33.5 Height (mm): 11.5 Weight (g): 20 Shipping Weight: 0.022 kg Shipping Dimensions (L × W × H cm): 8 × 6 × 3	Arduino Compatible • ISD1820 Module • Voice Recorder • 10s Audio • Playback Module • Onboard Mic • 8? Speaker • Sound Board
No Image	EMC-00003-A	NodeMcu	EM - Electronic-Electrical Modules	Espressif Systems, Ai-Thinker, NodeMCU	The ESP8266 NodeMCU CH340 board is a WiFi-enabled microcontroller based on the ESP8266 chip for IoT applications. It offers onboard processing, GPIO support, and built-in wireless connectivity. It is widely used in IoT projects, smart devices, automation systems, and wireless sensor applications.	Processor: L106 32 bit Processor speed: 80MHz to 160MHz Flash memory: 4MB Analog to digital: 1 input with 1024 resolution Maximum concurrent TCP connection: 5 GPIOs: 17 Transfer rate: 110 Kbps to 460800 Kbps Input voltage supply: 4.5V to 9V Communication interface voltage: 3.3V Current consumption: 10uA-170mA	NodeMCU • ESP8266 • WiFi Module • IoT Development Board • ESP8266EX • Wireless Module
No Image	EMC-00008-A	IR Receiver module	EM - Electronic-Electrical Modules	Vishay Semiconductors, Sharp Corporation, Keyestudio, DFRobot, SparkFun Electronics	The KY-022 IR Receiver Module is a 38kHz infrared sensor used to detect and decode signals from IR remote controls. It provides a digital output with an indicator LED when an IR signal is received. It is commonly used in Arduino projects, robotics, home automation, and remote-control decoding applications.	Current consumption: 1.5mA peak Frequency: 38kHz Operating Voltage: 3.3V to 5V Pulse Duration: 400µs to 800µs Range: 17m Wavelength: 940 nm	IR Receiver • Infrared Sensor • TSOP1838 • Remote Receiver • Arduino IR Sensor • 38kHz IR Module • IR Decoder
	EMS-00001-A	MQ-2 Gas Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics Group Corporation, Zhengzhou Winsen Electronics Technology Co., Ltd.	The MQ-2 Gas Sensor Module detects combustible gases such as LPG, methane, hydrogen, alcohol vapor, and smoke. It uses a SnO ₂ sensing element and provides both analog and digital outputs with adjustable sensitivity. Ideal for gas leakage detection, safety systems, fire alarms, environmental monitoring, smart home applications, and Arduino-based electronics projects.	Sensor Model: MQ-2 Detection Range: 300 – 10,000 ppm Detectable Gases: LPG, Butane, Propane, Methane (CH ₄), Hydrogen (H ₂), Alcohol, Smoke, CO Sensing Material: Tin Dioxide (SnO ₂) Operating Voltage: 5V DC Digital Output Voltage: 0V or 5V (TTL Logic) Analog Output: Yes Sensitivity Adjustment: Onboard Potentiometer Preheat Time: 20 seconds (minimum) Dimensions (mm): 36 × 20 × 21 Weight (g): 8 Shipping Weight: 0.012 kg Shipping Dimensions (cm): 4 × 4 × 4	Arduino Compatible • MQ-2 Sensor • LPG Gas Sensor • Smoke Detector • SnO2 Sensor • Combustible Gas Module • 5V Gas Sensor • Gas Leakage Detector
	EMS-00002-A	Temp Humidity Sensor	EM - Electronic-Electrical Modules	EM Series / Generic Compatible, KEYESTUDIO, SunFounder, DFRobot	Digital temperature and humidity sensor module with calibrated single-wire serial output for easy interfacing. Features an onboard pull-up resistor and LED status indicator for reliable operation. Suitable for weather stations, environmental monitoring, smart home systems, Arduino projects, and IoT applications requiring accurate temperature and humidity measurements.	Item Type: Sensor Model: DHT11 Temperature and Humidity Sensor Measuring Temperature Range (°C): 0 – 50 Temperature Accuracy: ± 2 °C Humidity Range: 20 – 95 % RH Humidity Accuracy: ± 5 % RH Resolution: 16 bit Output Form: Digital Output (Single Wire Serial) Operating Voltage (VDC): 3 – 5 Operating Current (mA): ? 2.5 Dimensions (L × W × H mm): 31 × 14 × 7.5 Weight (g): 5 Shipping Weight: 0.01 kg Shipping Dimensions (L × W × H cm): 5 × 5 × 2	DHT11 • Temperature Sensor • Humidity Sensor • Digital Temp Sensor • Arduino Climate Sensor
No Image	EMS-00004-A	Sound Level Sensor	EM - Electronic-Electrical Modules	Keyes, Keyes, DFRobot, SparkFun Electronics	The Sound Detection Module Sensor for Intelligent Vehicles is a single-channel sensor used to detect surrounding sound intensity. It provides a digital output signal and LED indication when sound is detected. It is widely used in voice-activated systems, smart vehicles, robotics, automation, and sound-triggered electronic projects.	IC Chip: LM393 Induction Distance: 500 cm Operating Voltage: 3.3 – 5 V Length: 4.3 cm Height: 0.8 cm Width: 1.7 cm	Sound Sensor • Microphone Module • Audio Sensor • Noise Sensor
No Image	EMS-00007-A	Temperature Sensor	EM - Electronic-Electrical Modules	Maxim Integrated, DFRobot, SparkFun	The DS18B20 Temperature Sensor Module is a digital temperature sensor that uses the 1-Wire communication protocol for accurate readings. Developed by Dallas Semiconductor, it provides calibrated digital output with high precision and supports multiple sensors on a single data line. It is widely used in weather stations, automation systems, industrial monitoring, and Arduino projects.	Product Type: Digital Temperature Sensor Model: DS18B20 Communication Protocol: 1-Wire Operating Voltage: 3V – 5.5V DC Temperature Range: -55°C to +125°C Accuracy: ±0.5°C	DS18B20 Temperature Sensor • Waterproof Temperature Sensor • Digital Temperature Sensor • One Wire Temperature Sensor

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	EMS-00010-A	Smoke Gas Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Winsen Electronics, SparkFun Electronics, DFRobot	The MQ-2 Gas Sensor Module is used to detect combustible gases like LPG, methane, propane, hydrogen, alcohol, and smoke. It works using an SnO ₂ sensing layer that changes resistance when gas is present. It provides analog and digital outputs and is commonly used in gas leak detection, safety systems, air quality monitoring, and Arduino projects.	Product Type: Gas & Smoke Sensor Model: MQ-2 Detectable Gases: LPG, Methane, Butane, Smoke Detection Range: 200 – 10000 ppm Operating Voltage: 5V DC	LPG Gas Sensor • methane sensor • Arduino Gas Sensor • MQ-2 Gas Sensor • Smoke Sensor Module • Butane Gas Detector • MQ2 Smoke Detector • Flammable Gas Sensor
No Image	EMS-00010-B	MQ-3 Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Winsen Electronics, Waveshare	The MQ-3 Alcohol Gas Sensor Module is used to detect alcohol concentration in the air. It provides analog and digital outputs based on gas levels. It is widely used in breath analyzers, safety systems, and IoT monitoring applications.	Operating Voltage (V): 2.5 to 5 Additional Specs: Output Pin: Analog and digital, Gold pin connectors, 2.54 mm pitch, Boost Converter Chip: PT1301 Board Size (mm): 40 x 21 mm Mounting Hole Diameter (mm): 2 mm Interface: Digital Output, Analog output, VCC Positive power supply (2.5V-5.0V), Power ground	arduino • alcohol sensor • MQ-3 • gas sensor • ethanol detector
	EMS-00010-C	MQ-4 Gas Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Winsen Electronics, Waveshare	The MQ-4 Gas Sensor Module is used to detect methane (CH ₄), CNG, and natural gas leaks. It provides analog and adjustable digital outputs for gas detection. It is widely used in gas leakage alarms, safety systems, and IoT monitoring applications.	Model: MQ-4 Detecting range: 200 to 10000 ppm. Operating Voltage: 3 – 5 V Length: 3.1 cm Height: 2.1 cm Width: 1.9 cm	Arduino Compatible • gas sensor • MQ-4 • methane sensor • CNG detector
	EMS-00010-F	MQ-7 Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Zhengzhou Winsen Electronics, DFRobot	The MQ-7 Carbon Monoxide Sensor Module is a gas sensor used to detect carbon monoxide (CO) in the air. It measures changes in conductivity to provide analog and digital outputs. It is widely used in safety systems, air quality monitoring, and IoT projects.	Model: MQ-7 Ambient temperature: -20 ~ + 50 °C Characteristic gas: 100 ppm CO Heating current: ? 180 mA Heating power: approx. 350 mW Heating resistance: ± 31 ? Heating voltage: 5.0V ± 2V / 1.5 ± 1V Humidity: ? 95% RH Operating Voltage: 5 V Oxygen content: 21%. Range: 10 ~ 1000 ppm Return time: ? 30 s Sensitivity: ? 3%. Length: 3.5 cm Height: 1.1 cm Width: 2 cm	arduino • MQ7 • Carbon Monoxide Sensor • CO Sensor • Gas Detector • Air Quality Sensor
	EMS-00010-H	Hydrogen Sensor	EM - Electronic-Electrical Modules	SparkFun Electronics, Hanwei Electronics, Winsen Electronics, SparkFun	The MQ-8 Hydrogen Gas Sensor is a semiconductor sensor used to detect hydrogen (H ₂) gas in the range of 100 ppm to 10,000 ppm. It works using a SnO ₂ sensing layer that changes resistance when exposed to hydrogen. It provides analog and digital outputs and is used in safety systems, gas monitoring, and Arduino/ESP32 projects.	Product Type: Hydrogen Gas Sensor Model: MQ-8 SparkFun SKU: SEN-10916 Detectable Gas: Hydrogen (H ₂) Detection Range: 100 – 10,000 ppm Operating Voltage: 5V DC	MQ-8 Gas Sensor • Hydrogen Gas Sensor • H2 Gas Detector • MQ8 Sensor Module • Hydrogen Detection Sensor • Arduino Gas Sensor • ESP32 Hydrogen Sensor • Gas Leakage Sensor
	EMS-00013-A	IR Obstacle Sensor	EM - Electronic-Electrical Modules	Generic OEM Manufacturer, Keyestudio, HiLetgo, Elegoo, SunFounder	The Infrared Obstacle Avoidance Sensor Module is used to detect nearby objects using infrared light reflection. It provides a digital output when an obstacle is detected. It is commonly used in robotics, Arduino smart cars, and obstacle detection systems.	Sensor Type: Infrared Reflective Obstacle Sensor Operating Voltage: 3.6V - 5V DC Output Type: Digital (Active Low) Main IC: LM393 Comparator Average Current Consumption: 0.06 mA Detection Angle: 35° Detection Distance: 2 cm – 30 cm (adjustable) Interface Pins: VCC, GND, OUT Indicator LED: Yes (Obstacle Detection Indicator) Sensitivity Adjustment: Onboard Potentiometer Dimensions (mm): 48 × 14 × 8 Weight (g): 5 Shipping Weight: 0.01 kg Shipping Dimensions (cm): 5 × 4 × 1	IR Obstacle Sensor • Infrared Reflective Module • LM393 Comparator • Active Low Output • Proximity Sensor • Arduino Compatible • Robot Sensor
No Image	EMS-00014-A	Touch Sensor	EM - Electronic-Electrical Modules	Tontek Design Technology, Shenzhen Tontek (Tontek IC), Generic Module Manufacturer, Waveshare (Module Vendor), Keyestudio (Arduino Vendor)	The TTP223B Capacitive Touch Key Sensor Module is a touch switch that replaces mechanical buttons. It outputs a HIGH signal when touched and works in low-power mode. It is commonly used in Arduino projects, smart switches, hidden controls, and automation systems.	Item Type: Electronic Switch Model: Touch Switch IC Chip: TTP223B Operating Voltage: 2V – 5.5V Output High (VOH): 0.8 × VCC Output Low (VOL): 0.3 × VCC Response Time (Low Power Mode): 220 ms Response Time (Touch Mode): 60 ms Length: 24 mm Width: 24 mm Height: 2 mm Weight: 0.6 g Shipping Weight: 0.085 kg Shipping Dimensions: 3 × 3 × 1 cm	arduino • touch • TTP223B • capacitive sensor
	EMS-00017-A	LDR Module	EM - Electronic-Electrical Modules	EM Series / Generic Compatible, KEYESTUDIO	The LDR Module detects ambient light intensity and provides a digital output based on the surrounding brightness level. It features an onboard potentiometer for adjusting sensitivity and threshold settings. Ideal for automatic lighting systems, day/night detection, Arduino projects, smart automation, security systems, and other light-controlled electronic applications.	Model: Light Dependent Resistor Module Operating Voltage (V): 3.3 – 5 Operating Current (mA): 15 Output Type: Digital (DO) Adjustable Threshold: Yes (via Potentiometer) Sensor Type: Photoresistor (LDR) Mounting Hole: M3 Indicator LEDs: Power LED, Status LED Pin Configuration: VCC, GND, DO Length (mm): 36 Width (mm): 14 Height (mm): 8 Weight (g): 3 Shipping Weight: 0.005 kg Shipping Dimensions (L × W × H): 4 × 3 × 2 cm	LDR Module • Light Sensor • Photoresistor Module • LM393 Sensor • Arduino Light Sensor

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	EMS-00018-A	Water Level Sensor	EM - Electronic-Electrical Modules	Generic Electronics, Generic Electronics, DFRobot, SparkFun	Water Level Sensor Module is used to detect water levels in tanks, containers, and irrigation systems. It works using conductive tracks that change resistance when in contact with water. It provides analog output for level measurement and digital output for threshold-based detection. It is commonly used in smart irrigation, tank monitoring, and leak detection systems.	Product Type: Water Level Sensor Module Sensor Type: Conductive Water Sensor Operating Voltage: 3.3V – 5V DC Comparator IC: LM393	Water Detection Sensor • Water Level Sensor • Liquid Level Sensor • Analog Water Sensor • Arduino Water Sensor • Level Detection Module • Tank Level Sensor
	EMS-00019-A	Soil Moisture Sensor	EM - Electronic-Electrical Modules	Sensor Probe Manufacturer, Comparator Module Manufacturer, IC Manufacturer	The Soil Moisture Sensor Module (YL-69 + FC-28) measures water content in soil using resistive sensing technology. It provides both analog (AO) and digital (DO) outputs, with adjustable sensitivity through an onboard LM393 comparator. Ideal for smart irrigation systems, plant monitoring, Arduino projects, greenhouse automation, and IoT-based environmental monitoring applications.	Sensor Type: Resistive Soil Moisture Sensor Operating Voltage: 3.3V – 5V DC Output Type: Analog (AO) and Digital (DO) Digital Output: 0 or 1 (TTL Logic) Measurement Principle: Resistance-based conductivity measurement Sensitivity Adjustment: Onboard Potentiometer (for digital threshold) Probe Dimension: Approx. 6 cm × 3 cm Cable Length: 20 cm Interface Pins: VCC, GND, DO, AO Shipping Weight: 0.02 kg Shipping Dimensions (cm): 8 × 6 × 3	Arduino Compatible • Soil Moisture Sensor • YL-69 • FC-28 • LM393 • Resistive Soil Sensor • Irrigation Sensor
	EMS-00020-A	Joystick Module	EM - Electronic-Electrical Modules	EM Series / Generic Compatible, KEYESTUDIO, SunFounder, DFRobot	Dual-axis analog joystick module for detecting X and Y movement positions. Each axis uses a 10K Ω potentiometer to provide a 0–5V analog output proportional to joystick position. Includes a built-in push-button switch for additional input functionality. Ideal for robotics, gaming controllers, Arduino projects, remote control systems, and motion control applications.	Model: PS2 Joystick Module Operating Voltage (VDC): 5 Potentiometer Resistance: 10K Ω (per axis) X/Y Output: Analog (0–5V) Button: Digital (Press-Down) Interface Type: 2.54 mm Pin Header PCB Size (mm): 34 × 32 Compatibility: Arduino / Raspberry Pi / Microcontrollers Lifespan: Long-Life, High-Stability Potentiometers Shipping Weight: 0.015 kg Shipping Dimensions (L × W × H): 6 × 5 × 4 cm	PS2 Joystick • Analog Joystick Module • Dual Axis Sensor • 10K Potentiometer Joystick • Arduino Joystick
	EMS-00021-A	Tilt Sensor	EM - Electronic-Electrical Modules	Generic Electronics, DFRobot, SparkFun, Keyestudio	SW-520D Tilt Sensor Module is a simple digital sensor that detects tilt, orientation change, vibration, or motion using a rolling metal ball inside a cylindrical switch. When tilted beyond a threshold (~10–15 $^\circ$), contacts connect/disconnect and produce a digital HIGH/LOW output. Used in alarms, robotics, and Arduino projects.	Product Type: Tilt / Angle Sensor Module Sensor Type: Ball Switch (SW-520D) Output Type: Digital (0 / 1) Operating Voltage: 3.3V – 5V DC Comparator IC: LM393	SW-520D Sensor • Tilt Sensor Module • Angle Sensor • Ball Switch Sensor • Orientation Sensor • Digital Tilt Switch • Arduino Tilt Sensor
	EMS-00022-A	Analog Piezo Module	EM - Electronic-Electrical Modules	Generic Electronics, DFRobot, SparkFun, Adafruit	The Analog Piezoelectric Vibration Module uses a ceramic disc to detect vibrations, knocks, and mechanical stress. It generates an analog voltage based on the strength of the vibration using the piezoelectric effect. Unlike digital sensors, it measures vibration intensity, making it useful for Arduino projects, touch sensing, impact detection, and monitoring applications.	Product Type: Analog Vibration Sensor Module Sensing Element: Piezoelectric Ceramic Disc Output Type: Analog Voltage Output Operating Voltage: 3.3V – 5V DC Operating Current: < 1 mA	Shock Sensor • Piezo Vibration Sensor • Analog Piezo Module • Ceramic Vibration Sensor • Knock Sensor • Arduino Piezo Sensor • Vibration Detection Module
	EMS-00023-A	Vibration Sensor	EM - Electronic-Electrical Modules	Generic Electronics, DFRobot, SparkFun, FlyRobo	SW-420 Vibration Sensor Module is used to detect vibration, shock, and movement in security systems, robotics, and Arduino projects. It uses an SW-420 sensor with an LM393 comparator to give a digital output when vibration is detected. The sensitivity can be adjusted using an onboard potentiometer.	Product Type: Vibration Sensor Module Sensor Model: SW-420 Comparator IC: LM393 Operating Voltage: 3.3V – 5V DC Output Type: Digital Output	LM393 Sensor • SW-420 Sensor • Vibration Sensor Module • Shock Sensor • Alarm Sensor • Motion Detection Sensor • Arduino Vibration Sensor
	EMS-00024-A	Rain Sensor Module	EM - Electronic-Electrical Modules	Generic Electronics, DFRobot, SparkFun	Rain Sensor Modules detect rain, water droplets, and moisture for applications like weather monitoring, smart irrigation, robotics, and Arduino projects. They include a sensor plate and LM393 module, providing analog and digital outputs for accurate and adjustable detection.	Product Type: Rain Detection Sensor Module Operating Voltage: 3.3V – 5V DC Comparator IC: LM393 Sensitivity Adjustment: Potentiometer Compatible Boards: Arduino, ESP32, Raspberry Pi	Rain Sensor Module • Rain Drop Sensor • FC-37 Sensor • YL-83 Rain Module • Water Detection Sensor • Arduino Rain Sensor • Weather Sensor
	EMS-00026-A	Magnetometer Module	EM - Electronic-Electrical Modules	Honeywell, ITEAD Studio, DFRobot, Adafruit, SparkFun	The HMC5883L Triple Axis Compass Magnetometer Module is a 3-axis digital compass sensor used in navigation, robotics, drones, GPS systems, and Arduino projects. It communicates via I2C and measures magnetic field strength along the X, Y, and Z axes. It provides accurate heading and orientation data for motion tracking and autonomous applications.	Product Type: Triple Axis Magnetometer Sensor Model: HMC5883L Number of Axes: 3 Axis Communication Interface: I2C Operating Voltage: 3.3V – 5V ADC Resolution: 12-bit	HMC5883L Sensor • Magnetometer Module • Compass Sensor • Triple Axis Compass • GY-271 Sensor • GY-273 Module • Arduino Compass Sensor

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	EMX-00001-A	Arduino Uno R3	EM - Electronic-Electrical Modules	Arduino, Elegoo, HiLetgo, Keyestudio	The Arduino Uno R3 is a microcontroller development board based on the ATmega328P, designed for building interactive electronics projects. It features 14 digital I/O pins, 6 analog inputs, a 16 MHz clock, USB interface, and operates at 5V. It is widely used in education, prototyping, robotics, and embedded system development.	Board Type: Uno With Cable: Yes Operating Voltage: 5 V Input Voltage Range: 6 – 20 V Analog I/O Pins: 6 Digital I/O Pins: 14 (6 × PWM) DC Current per I/O Pin: 40 mA Clock Speed: 16 MHz SRAM: 2 KB EEPROM: 1 KB Flash Memory: 32 KB Dimensions (L × W × H): 75 × 54 × 12 mm Weight: 28 g (without cable), 54 g (with cable)	ATmega328P • 5 V Board • 16 MHz Crystal • USB Interface • Microcontroller • Educational Kit • Open-Source Hardware • Breadboard Compatible
No Image	EMX-00002-A	Arduino nano	EM - Electronic-Electrical Modules	Arduino, Gravitech, RobotDyn, Keyestudio, DFRobot	The Arduino Nano is a compact microcontroller board based on the ATmega328. It offers digital and analog I/O in a small breadboard-friendly form factor. It is widely used in embedded systems, robotics, IoT projects, and educational electronics.	Microcontroller: ATmega328 Flash Memory: 32 KB (ATmega328) of which 2 KB used by bootloader SRAM: 1 KB or 2KB EEPROM: 512 bytes (ATmega168) or 1 KB (ATmega328) Clock Speed: 16 MHz Digital I/O Pins: 14 (of which 6 provide PWM output) Analog Input Pins: 8 DC Current per I/O Pin: 40 mA Operating Voltage: 5V Input Voltage: 7 - 12 V (5V model)	ATmega328P • Arduino Nano • Microcontroller Board • Development Board • IoT
No Image	EMX-00003-A	Arduino Mega	EM - Electronic-Electrical Modules	Arduino, Elegoo, RobotDyn, Keyestudio, DFRobot, Waveshare	The Arduino Mega 2560 is a microcontroller board based on the ATmega2560. It offers 54 digital I/O pins, 16 analog inputs, multiple serial ports, and is designed for complex projects requiring high I/O and memory. It is widely used in robotics, automation, IoT systems, and large-scale embedded applications.	Microcontroller Chip: ATmega2560 Analog I/O Pins: 16 Digital I/O Pins: 54 (of which 14 provide PWM output) Flash Memory: 256 KB of which 8 KB used by bootloader SRAM: 8 KB EEPROM: 4 KB DC Current per I/O Pin: 40 mA DC Current for 3.3V Pin: DC Current for 3.3V Pin Operating Voltage: 5V Input Voltage: 7V to 12V Input Voltage (limit): 6V-20V	Development Board • Arduino Mega • ATmega2560 • Embedded Systems • IoT Board
	EQE-00001-A	Vernier Caliper	EQ - Equipment/Instrument	Mitutoyo, INSIZE, Baker Gauges, iGaging	Digital vernier calipers are precision tools used to measure internal, external, depth, and step dimensions accurately. They feature an LCD display for quick and easy digital readings with high precision. Commonly used in engineering, electronics, machining, woodworking, labs, robotics, and DIY projects for accurate measurement tasks.	Product Type: Digital Vernier Caliper Measuring Range: 0 – 150 mm Resolution: 0.01 mm Accuracy: ±0.02 mm Display Type: LCD Digital Display	DIY Measuring Tool • Digital Vernier Caliper • Electronic Caliper • LCD Caliper • Precision Measuring Tool • Digital Measuring Tool • Stainless Steel Caliper
	EQE-00002-A	Digital Multimeter	EQ - Equipment/Instrument	Generic / OEM, YX-360, Mastech, Victor, Pro'sKit	Compact Digital Multimeter for everyday electrical testing. Measures AC/DC voltage, DC current, resistance, diode, continuity, transistor hFE, battery condition, and square wave output. Features an easy-to-read LCD display for accurate readings. Ideal for students, hobbyists, laboratories, DIY projects, and technicians for troubleshooting, testing, and educational applications.	Item Type: Multimeter Model Type: Digital Multimeter (DT830D Type) Probe Length: 60 cm Length: 120 mm Width: 70 mm Height: 27 mm Weight: 160 g Shipping Weight: 0.18 kg Shipping Dimensions: 15 × 8 × 3.5 cm	DT830D • Digital Multimeter • AC/DC Tester • LCD Display • VOM
	MMD-00002-A	Metal Gear Servo	MM - Mechanical Module	TowerPro, DFRobot, Adafruit, SparkFun, Robocraze	The MG995 360° High Torque Servo Motor is a continuous rotation servo used in robotics, RC vehicles, robotic arms, automation systems, smart wheel drives, and Arduino projects. It features metal gears, PWM control, and high torque for strong and reliable performance. Its continuous rotation makes it ideal for motion control and automation applications.	Product Type: Digital Servo Motor Model: MG995 Rotation Type: 360° Continuous Rotation Operating Voltage: 4.8V – 7.2V DC Stall Torque: 9kg·cm – 13kg·cm	Arduino Servo • Digital Servo Motor • Metal Gear Servo • High Torque Servo • Robotics Servo • MG995 Servo • 360° Servo Motor
	MMD-00002-D	Digital Servo Motor	MM - Mechanical Module	TowerPro, Probots, DFRobot, Adafruit, SparkFun	The MG996R 360° Digital Servo Motor is a high-torque continuous rotation servo used in robotics, robotic arms, RC vehicles, automation systems, pan-tilt platforms, and Arduino projects. It features strong metal gears and PWM control for smooth and reliable operation. Its full 360° continuous rotation makes it ideal for applications requiring controlled motion and high torque.	Product Type: Digital Servo Motor Model: MG996R Rotation Type: 360° Continuous Rotation Operating Voltage: 4.8V – 7.2V DC Rated Voltage: 6V DC Stall Torque: 10kg·cm – 13kg·cm	Arduino Servo • MG996R Servo • 360 Degree Servo • Digital Servo Motor • Metal Gear Servo • High Torque Servo • Robotics Servo