

Parts Export

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Total Parts: 111

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
	EDR-00001-100Z	Resistor - 100 Ohm	ED - Electronic Device	Yageo, Vishay, KOA Speer, TE Connectivity, Generic	The Carbon Film Resistor Pack includes multiple resistor values such as 100 Ω and others for convenience. These resistors offer stable performance with low noise and are commonly used in Arduino projects, RF circuits, and general electronic applications.	Series: – Resistance (Ohm): 100 Tolerance (%): 1 Power Rating: 250mW Composition: Metal Film Temperature Coefficient: +/- 50ppm/°C Operating Temperature (°C): -40 ~ 150 Case/Package: Axial Length (mm): 6 Mounting Type: Through Hole Shipping Weight: 0.001 kg Shipping Dimensions: 1 × 1 × 1 cm	resistor • 100ohm • carbon film • passive component
	EDR-00001-10K0	Resistor - 10K Ohm	ED - Electronic Device	Yageo, Vishay, KOA Speer, TE Connectivity, Generic	The Carbon Film Resistor Pack is a set of resistors with multiple values like 10 Ω , 100 Ω , and 1K Ω . They offer stable performance, low noise, and are widely used in Arduino projects, embedded systems, and general electronic circuits.	Power: 1/4 W Resistance: 100 Ω Resistance Tolerance: 5% Type: Carbon Film Resistors	Through Hole • carbon film • 10k resistor • 0.25w • passive • axial
	EDD-00002-A	Red LED	ED - Electronic Device	Generic	Red Light Emitting Diode (LED) used as a visual indicator in electronic circuits and projects. Features a 10mm DIP package that emits bright red light with low power consumption and long operating life. Ideal for TVs, monitors, telephones, computers, status indicators, prototyping, educational experiments, DIY electronics, and general-purpose electronic applications.	Case/Package: DIP Diameter (mm): 10 Mounting Type: Through Hole Lens Appearance: Transparent Color: Red Forward Voltage (V): 2 Forward Current (mA): 30 Shipping Weight: 0.001 kg Shipping Dimensions (L × W × H): 1 × 1 × 1 cm	Red LED • Indicator LED • Through Hole LED • DIP LED • 10mm LED
	EDD-00002-C	Yellow LED	ED - Electronic Device	Generic	Yellow Light Emitting Diode (LED) used as a visual indicator in electronic circuits and projects. Features a 10mm DIP package with a transparent body that emits bright yellow light. Ideal for TVs, monitors, telephones, computers, status indicators, control panels, prototyping, educational experiments, DIY electronics, and general-purpose electronic applications.	Case/Package: DIP Diameter (mm): 10 Mounting Type: Through Hole Lens Appearance: Transparent Color: Yellow Forward Voltage (V): 3.2 Forward Current (mA): 30 Shipping Weight: 0.001 kg Shipping Dimensions (L × W × H): 1 × 1 × 1 cm	Indicator LED • Through Hole LED • DIP LED • 10mm LED • Yellow LED
	EDR-00002-10K0	Potentiometer	ED - Electronic Device	ED Series / Generic Compatible, Bourns, Alpha, Omega	10K Ω rotary potentiometer used for adjusting voltage, current, and signal levels in electronic circuits. Features smooth single-turn rotation, a durable 15mm shaft, and through-hole mounting for easy installation. Ideal for audio volume control, Arduino analog inputs, sensor calibration, circuit tuning, embedded systems, prototyping, and educational electronics projects.	Manufacturer: Generic Resistance (Ohm): 10K Tolerance (%): 20 Temperature Coefficient: $\pm$ 100ppm/°C Operating Temperature (°C): -40 to 80 Mounting Type: Through Hole Shaft Type: 15mm Rotary Shaft Adjustment Type: Single Turn Length (mm): 20 Width (mm): 17 (Body Diameter) Height (mm): 24 Weight (g): 6 Shipping Weight: 0.001 kg Shipping Dimensions (L × W × H): 1 × 1 × 1 cm	10K Potentiometer • Rotary Pot • Variable Resistor • WH148 Potentiometer • 3-Pin Pot
	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 Ω , 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 Ω Speaker • Sound Board

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No Image	COC-00001-A	Filament Tape	CO - Consumables	Dowell, 3M, Advance Tapes, Deta Electrical	The Insulation Filament Tape (25mm x 50m) is a high-strength adhesive tape reinforced with fiberglass for excellent tensile strength and tear resistance. It is used for bundling, sealing, reinforcing, and securing loads. It offers strong adhesion, heat resistance, and insulation properties, making it suitable for electrical, industrial, and DIY applications.	Operating Temperature: -18°C to +105°C Voltage Rating: Up to 600V Thickness: 0.178mm Flame Retardant: Yes	PVC Tape • Electrical Tape • Binding Tape • Insulation Tape • Cable Tape • Wire Management • Electronics Tape
No Image	COC-00001-B	Foam Tape	CO - Consumables	3M, Tesa, Nitto Denko, Avery Dennison, Hi-Bond	The Foam Tape Roll (50mm x 6mm) is a durable adhesive foam tape used for sealing, mounting, insulation, and vibration damping. It provides strong adhesion with cushioning that absorbs shocks and reduces noise. It is widely used in DIY projects, automotive work, electronics mounting, and professional installations.	Color: Black Thickness: 6mm Material: EVA Foam Length: 5 Meter Width: 50mm	Foam Tape • Double Sided Tape • EVA Foam Tape • PE Foam Tape • Acrylic Foam Tape
No Image	COC-00001-C	Masking Tape Roll	CO - Consumables	Avery Dennison, Advance Tapes, Shurtape, Intertape Polymer Group	The Masking Tape Roll (20mm x 20m) is a versatile adhesive tape used for painting, crafting, labeling, and general-purpose applications. It provides clean masking and removes easily without residue. It adheres well to surfaces like wood, metal, and glass and is widely used in DIY, workshop, and professional projects.	Tape Type: Pressure Sensitive Masking Tape Material: Crepe Paper Width: 12mm – 48mm Length: 10m – 50m Temperature Resistance: Up to 80°C	Electronics Tape • Masking Tape • Paper Tape • Crepe Tape • Painting Tape • PCB Masking
	COC-00003-A	Hot Glue Sticks 7 mm	CO - Consumables	Stanley, Surebonder	The Thermoplastic Adhesive Glue Sticks are used with hot glue guns for crafting, DIY projects, electronics assembly, and repairs. They melt quickly to form a strong bond on materials like plastic, wood, paper, and fabric. They are commonly used in workshops, prototyping, and educational projects for fast and durable adhesion.	Glue Stick Diameter: 7mm Melting Temperature: 120°C – 180°C Compatibility: 7mm Mini Glue Guns Stick Length: 100mm – 300mm	Hot Melt Adhesive • hot glue stick • glue gun stick • adhesive stick • 7mm glue stick • craft glue
	COC-00004-A	Desoldering Wick	CO - Consumables	Generic	Desoldering wick is a copper braid used to remove solder from electronic joints. It works with a soldering iron to absorb molten solder for clean PCB repair and rework.	Item Type: Desoldering Wick Material: Suitable for Comfortable Desoldering Length: 1.5 m Width: 1.85 mm Thickness: Suitable for Comfortable Desoldering Application: Faster & Cleaner Electronics Desoldering Shipping Weight: 0.008 kg Shipping Dimensions (L x W x H): 6 x 5 x 1 cm	Desoldering Wick • Solder Braid • PCB Repair • 100% Copper • Solder Removal • Flux-Assisted • Electronics Rework • 1.5m
	COC-00007-A	Soldering Flux	CO - Consumables	Generic / OEM, Noel, Welfix, Mechanic, Pro'sKit	Soldering Flux Paste is used to improve solder flow and create strong, clean solder joints. It reduces oxidation and helps solder stick properly. It is commonly used in PCB work, wire connections, and electronics repair.	Item Type: Soldering Flux Paste Net Weight: 10 g Color: White / Yellow (as per brand batch) Usage: PCB, Wires, Electrical Components Packaging Type: Small Plastic Container	Flux Paste • 10g • Soldering Flux • PCB Repair • Low Smoke
	EDA-00002-A	Alligator Cable	MM - Mechanical Module	Generic / OEM, KEYESTUDIO	10-pin jumper wire set featuring insulated alligator (crocodile) clips on one end and female Dupont connectors on the other. Designed for quick and secure temporary electrical connections in DIY projects, prototyping, and laboratory testing. Widely used in school physics labs, breadboard testing, circuit assembly, and component holding during soldering.	Item Type: Electronics Accessory Jumper Type: Female Clip Length: 22.6 mm Cable Length: 20 cm Material: Copper with Plastic Insulation Shipping Weight: 0.04 kg Shipping Dimensions: 7 x 4 x 2 cm	Alligator Clip Wire • Dupont Jumper Wire • 10 Pin Jumper • Crocodile Clip Cable • 20cm Test Lead
No Image	EDD-00001-A	Laser Diode Module	ED - Electronic Device	OSRAM, Sharp, Rohm, Mitsubishi, Generic	The Mini 650nm 6mm 5mW Laser Dot Diode Module is a compact red laser emitter used in electronics and robotics projects. It operates on 3–5V DC and produces a focused laser dot. It is commonly used for alignment, sensing experiments, and Arduino-based educational and DIY projects.	Item Type: Laser Module Voltage Rating (V): 5 Weight (g): 2 Operating Temperature (°C): -10 to 50 Rated Power (mW): 5mW Wavelength (nm): 650	laser diode • laser • light emitter • optical • semiconductor • electronic device

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	EDD-00003-B	RGB LED Module	ED - Electronic Device	Jameco ValuePro, Jameco ValuePro, Adafruit Industries	5mm high-brightness RGB LED module with a common anode configuration. Emits red, green, and blue light, allowing a wide range of colors through color mixing. Suitable for status indicators, Arduino projects, decorative lighting, educational experiments, displays, and DIY electronics. Easy to interface with microcontrollers for dynamic lighting and visual effects.	Manufacturer: Generic Model Type: Common Anode RGB LED Package: 5mm Round (Clear Lens) Color: Red, Green, Blue Configuration: Common Anode Brightness: High Current Consumption: Low Operating Voltage: 2.0–3.2V (per color) Forward Current (mA): 20 (per channel) Power Efficiency: High Luminous Output, Low Heat Material: Epoxy Resin, Gold Wire Leads Mounting Type: Through Hole Item Size: 5mm Shipping Weight: 0.001 kg Shipping Dimensions (L × W × H): 1 × 1 × 1 cm	RGB LED • 5mm LED • Indicator LED • Through Hole LED • Common Anode LED
	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
	EDD-00005-A	Voltage Regulator	ED - Electronic Device	Texas Instruments, STMicroelectronics, ON Semiconductor, Fairchild Semiconductor	The LM7805 Voltage Regulator is a fixed-output regulator that provides a stable 5V DC supply from a higher input voltage. It includes built-in thermal overload and short-circuit protection for reliable operation. It is widely used in Arduino projects, IoT devices, sensor circuits, power supplies, and embedded systems.	Device Type: Linear Voltage Regulator Output Voltage: 5V DC Package Type: TO-92 Input Voltage Range: 7V – 20V Output Current: Up to 100mA	LM7805 • voltage regulator • 5V regulator • TO-92 regulator • linear regulator • power supply IC
	EDD-00005-B	Voltage Regulator	ED - Electronic Device	Texas Instruments, STMicroelectronics, ON Semiconductor, Fairchild Semiconductor	The LM7812 Voltage Regulator is a fixed-output regulator that provides a stable 12V DC supply from a higher input voltage. It includes built-in thermal overload and short-circuit protection for safe operation. It is widely used in power supplies, robotics, Arduino projects, communication modules, and embedded systems.	Device Type: Linear Voltage Regulator Output Voltage: 12V DC Package Type: TO-92 Input Voltage Range: 14V – 30V Output Current: Up to 100mA	voltage regulator • TO-92 regulator • linear regulator • power supply IC • LM7812 • 12V regulator
	EDD-00005-C	Voltage Regulator	ED - Electronic Device	Texas Instruments, STMicroelectronics, ON Semiconductor, Fairchild Semiconductor	The LM7806 Voltage Regulator is a fixed-output regulator that provides a stable 6V DC supply from a higher input voltage. It includes built-in thermal and short-circuit protection. It is widely used in Arduino projects, robotics, sensor circuits, battery-powered devices, and embedded systems requiring regulated power.	Device Type: Linear Voltage Regulator Output Voltage: 6V DC Package Type: TO-92 Input Voltage Range: 8V – 20V Output Current: Up to 100mA	voltage regulator • TO-92 regulator • linear regulator • power supply IC • LM7806 • 6V regulator
	EDK-00001-A	Capacitor	ED - Electronic Device	Nichicon, Panasonic, Rubycon, Nippon Chemi-Con	The Electrolytic Capacitor is a polarized component used for energy storage, voltage filtering, smoothing, and power supply stabilization. Its high capacitance makes it ideal for power supplies, amplifiers, motor drivers, Arduino projects, industrial electronics, and embedded systems.	Capacitor Type: Aluminum Electrolytic Capacitor Capacitance Range: 1μF – 10000μF Voltage Rating: 6.3V – 450V Operating Temperature: -40°C to +105°C	electrolytic capacitor • aluminum capacitor • polarized capacitor • filtering capacitor
	EDK-00002-A	Capacitor Kit	ED - Electronic Device	Generic, Murata, TDK, KEMET	The Capacitor Kit is a set of passive electronic components used to store electrical energy. It includes multiple capacitor values and is commonly used for filtering, smoothing, timing, and energy storage in electronic circuits. It is widely used in Arduino projects, power supplies, and embedded systems.	Quantity: 100pcs (5 each per Value) Voltage: 50V	Electronics • passive • capacitor • ceramic • capacitor set

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	EDK-00005-A	Switch Kit	ED - Electronic Device	Omron, C&K, E-Switch	The Electronic Switch Kit is a collection of assorted switches, including push buttons, tactile, toggle, slide, and rocker switches. It provides reliable circuit control and user input for Arduino projects, robotics, embedded systems, IoT devices, DIY electronics, and prototyping applications.	Product Type: Electronic Switch Assortment Kit Switch Types: Push Button, Toggle, Slide, Rocker, Tactile Operating Voltage: 3V – 250V Current Rating: Up to 5A	Tactile Switch • switch kit • push button switch • toggle switch • slide switch • rocker switch
	EDK-00006-A	Diode Transistor Set	ED - Electronic Device	ON Semiconductor, Vishay, STMicroelectronics, Fairchild Semiconductor	The Diode and Transistor Kit is a collection of essential semiconductor components, including diodes and NPN/PNP transistors, used for switching, amplification, rectification, and voltage regulation. It is ideal for electronics prototyping, circuit development, learning, testing, repair work, and embedded projects.	Kit Type: Semiconductor Assortment Kit Components Included: Diodes (Rectifier, Signal, Zener), NPN & PNP Transistors Max Voltage: Up to 1000V (depending on component) Max Current: Up to 3A (depending on component)	transistor kit • NPN transistor • semiconductor kit • diode kit • rectifier diode • Zener diode
	EDM-00001-A	Tactile Switch	ED - Electronic Device	OMRON, E-Switch	This tactile push button switch kit includes 12×12×7.3mm momentary ON-OFF switches for reliable circuit input. Rated for 12V DC and 120mA, they provide good tactile feedback. The kit includes 25 color-coded keycaps and a storage box, making it ideal for Arduino projects, prototyping, DIY electronics, and educational use.	Item Type: Micro Switch Model: Tactile Push Button Switch Operation Mode: ON-OFF Contact Type: Momentary Current Rating: 120mA Operating Voltage: 12V DC Switch Type: Push Button Material: Metal and Plastic Mounting Type: Surface Mount Button Size (mm): 12×12×7.3 Operating Temperature (°C): -25 to +70 Lifespan: ~1000 Cycles Box Dimensions (mm): 127.1 × 68.3 × 21.9 Weight (g): 55 Shipping Weight: 0.06 kg Shipping Dimensions (L × W × H): 13 × 7 × 3 cm	Tactile Switch • Push Button • 12x12mm Switch • Momentary Switch • Arduino Button Kit
	EDM-00002-A	Power switch	ED - Electronic Device	C&K, Omron	The Power Switch is a mechanical device used to control electrical power in circuits and electronic equipment. It provides reliable ON/OFF operation for safely connecting or disconnecting power. Commonly used in power supplies, embedded systems, control panels, DIY electronics, and consumer devices.	Switch Type: SPST (Single Pole Single Throw) Rated Voltage: 125V – 250V AC / 12–24V DC Rated Current: 3A – 10A	toggle switch • rocker switch • power switch • on off switch • SPST switch • electrical switch
	EDM-00002-B	Power switch	ED - Electronic Device	C&K, Omron	The On/Off Power Switch is a mechanical switch used to control the flow of electrical power in electronic circuits and devices. It provides a simple and reliable way to turn equipment ON or OFF. Commonly used in power supplies, embedded systems, control panels, DIY electronics, and consumer devices for convenient manual power control.	Switch Type: SPST (Single Pole Single Throw) Rated Voltage: 125V – 250V AC / 12–24V DC Rated Current: 3A – 10A	toggle switch • rocker switch • power switch • on off switch • electrical switch • on/off switch
	EDM-00003-A	DPDT Toggle Switch	ED - Electronic Device	C&K, E-Switch, Omron	The DPDT (Double Pole Double Throw) Toggle Switch is a mechanical switch used to control two separate circuits and switch each between two output paths. It is commonly used for polarity reversal, motor direction control, signal routing, power selection, automation, robotics, and DIY electronics projects.	Switch Type: DPDT (Double Pole Double Throw) Number of Pins: 6 Pins Rated Voltage: 125V – 250V AC / 12–30V DC Rated Current: 3A – 6A	toggle switch • DPDT switch • 6 pin switch • polarity reversing switch • control switch
	EDM-00004-A	Alligator clips	ED - Electronic Device	Pomona Electronics, Mueller Electric, E-Z-Hook, Klein Tools	The Alligator Clips are spring-loaded metal clips used for temporary electrical connections in testing, prototyping, and electronics projects. They provide quick, secure contact with wires, batteries, sensors, and circuit terminals without soldering. Widely used in Arduino, robotics, educational kits, and troubleshooting applications.	Clip Type: Alligator / Crocodile Clip Material: Nickel Plated Steel Opening Width: 5mm – 15mm Electrical Rating: Low Voltage (	alligator clip • crocodile clip • test clip • battery clip • jumper clip • electronics clip • prototyping clip
	EDM-00005-A	Prototype Board	ED - Electronic Device	MWduino / Generic	Complete prototyping kit with 400-point solderless breadboard and T-type GPIO breakout module. Includes 40-pin flat ribbon cable for clean and organized Raspberry Pi GPIO access. Ideal for Raspberry Pi projects, circuit prototyping, and educational experimentation.	Item Type: Cable Model: GPIO Compatibility: Raspberry Pi 3 Model B/B+ T: Connector Dimensions (mm): 72 × 59 × 12 T: Connector Weight (g): 13 Pitch (mm): 2.54 Cable Length (cm): 20 (Flat Ribbon) No. of Pins: 40 Width of Cable (cm): 5.5 Additional Specs (mm): 84 × 55 × 8.5 (L × W × H) No. of Tie Points: 400 Weight (g): 40 Material: ABS Plastic Shipping Weight: 0.06 kg Shipping Dimensions (L × W × H): 10 × 7 × 7 cm	Breadboard 400 Point • GPIO Breakout Board • Raspberry Pi GPIO • T-Type Adapter • 40 Pin Ribbon Cable

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No Image	EDM-00005-B	Breadboard Mini	ED - Electronic Device	BusBoard Prototype, Twin Industries, Elegoo, SunFounder, Generic	The Mini Solderless Breadboard (170 Tie Points) is a compact prototyping board used for building circuits without soldering. It allows easy component placement and quick circuit testing. It is commonly used in Arduino projects, electronics experiments, and educational kits.	Item Type: Breadboard No. of Points: 170 Tie Points: 170 Material: ABS Mounting holes: M2 Length (mm): 48 Width (mm): 35 Height (mm): 9 Weight (g): 14	testing • Prototyping • Electronics • breadboard • mini breadboard • pcb • solderless
	EDM-00005-C	Full-size breadboard	ED - Electronic Device	BusBoard Prototype, Twin Industries, Elegoo, SunFounder, Generic	The MB102 830 Points Solderless Prototype Breadboard is a solderless board used for building and testing electronic circuits. It allows quick circuit assembly and modification without soldering. It is widely used in Arduino projects, educational labs, R&D, and electronics prototyping.	Item Type: Breadboard, Solderless Type No. of Points: 830 Material: ABS	testing • Prototyping • Electronics • breadboard • pcb • solderless • full size breadboard
	EDM-00009-A	PCB Prototype Board	ED - Electronic Device	Bud Industries, Twin Industries, BusBoard Prototype Systems, Keystudio, Generic / OEM	The 4×6 cm Universal PCB Prototype Board is a durable prototyping board used for building and testing electronic circuits. It features a HASL finish and precision drilled holes for easy soldering. It is commonly used in Arduino projects, embedded systems, and DIY electronics development.	Item Type: PCB Prototype Board Dimensions: 4 × 6 cm Length: 60 mm Width: 40 mm Board Thickness: 1.6 mm Copper Thickness: 1–4 oz Minimum Hole Size: 0.3 mm Weight (Unit): 6 g Pack Quantity: 2 Pieces Shipping Weight: 0.01 kg Shipping Dimensions: 7 × 5 × 1 cm	Double-Sided PCB • 4x6 cm • FR4 • Prototype Board • 2.54mm Pitch • DIY Electronics
	EDR-00002-20K0	Potentiometer	ED - Electronic Device	Bourns, Panasonic, Alps Alpine	The 20KΩ Linear Potentiometer is a variable resistor used for adjustable resistance and voltage control in electronic circuits. It provides smooth analog output for voltage tuning, sensor calibration, audio control, and microcontroller inputs. It is widely used in embedded systems, control panels, test equipment, and educational electronics projects.	Resistance Value: 20KΩ Type: Linear Potentiometer Tolerance: ±10% (typical) Power Rating: 0.1W – 0.5W Rotation Angle: ~270°	Rotary Pot • Variable Resistor • potentiometer • 20K ohm pot • linear potentiometer • analog control
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-00004-A	LM35 Sensor	ED - Electronic Device	Texas Instruments, National Semiconductor, STMicroelectronics	The LM35 Temperature Sensor Module is an analog temperature sensor that provides a voltage output directly proportional to temperature in degrees Celsius. It offers accurate temperature measurement and easy interfacing with Arduino and other microcontrollers. It is widely used in weather stations, industrial control systems, robotics, IoT devices, and educational projects.	Sensor Type: Analog Temperature Sensor Output: Linear Analog Voltage (10mV/°C) Operating Voltage: 4V – 30V Temperature Range: 0°C to 100°C (typical)	Arduino Sensor • Temperature Sensor • analog sensor • LM35 • thermal sensor • IoT 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-00001-C	Methane Gas Sensor	ED - Electronic Device	Hanwei Electronics, Winsen, Figaro Engineering	The Methane Gas Sensor is a gas detection device used to detect methane (CH ₄), CNG, and natural gas leaks. It provides an analog output proportional to gas concentration and can be easily interfaced with Arduino and other microcontrollers. It is widely used in gas leak detection, industrial safety, smart homes, and IoT monitoring systems.	Sensor Type: Methane / CNG Gas Sensor Target Gas: CH ₄ (Methane), CNG, Natural Gas Operating Voltage: 5V DC Warm: up Time: 20–60 seconds Detection Range: ~200–10000 ppm (typical)	methane sensor • CNG sensor • MQ-4 sensor • gas leak detector • natural gas sensor

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	EDT-00001-D	Gas Leakage Sensor	ED - Electronic Device	Hanwei Electronics, Winsen, Figaro Engineering	The Gas Leakage Sensor is a gas detection device used to identify LPG, propane, butane, smoke, and natural gas leaks in the environment. It monitors gas concentration levels and helps provide early warning of hazardous conditions. The sensor is widely used in gas leakage alarm systems, smart home safety devices, industrial safety monitoring, and IoT-based environmental monitoring applications.	Sensor Type: LPG / Natural Gas Sensor Target Gas: LPG (Propane, Butane), Natural Gas, Smoke Operating Voltage: 5V DC Warm: up Time: 20–60 seconds Detection Range: ~200–10000 ppm (typical)	MQ-2 Sensor • LPG Sensor • Propane Sensor • gas leak detector • natural gas sensor
	EDT-00001-E	LPG Gas Sensor	ED - Electronic Device	Hanwei Electronics, Winsen, Figaro Engineering	The LPG Gas Sensor is a gas detection device used to detect LPG, butane, and propane gas leaks. It provides an analog output based on gas concentration and can be easily interfaced with Arduino and other microcontrollers. It is widely used in gas leak alarms, smart home safety systems, industrial monitoring, and IoT projects.	Sensor Type: LPG / Butane Gas Sensor Target Gas: LPG, Butane, Propane Operating Voltage: 5V DC Warm: up Time: 20–60 seconds Detection Range: ~200–10000 ppm (typical)	LPG Sensor • Propane Sensor • Butane Sensor • gas leak detector • MQ-6 sensor
	EDT-00002-A	LDR Module	ED - Electronic Device	Advanced Photonix, Token Electronics, Excelitas Technologies, Luna Optoelectronics	The LDR (Light Dependent Resistor) is a light-sensitive component whose resistance varies with light intensity. Its resistance decreases in bright light and increases in darkness. It is widely used in automatic lighting systems, light meters, solar trackers, security devices, and electronics projects for light detection and control.	Operating Voltage: 3.3V – 5V Sensor Type: Light Dependent Resistor Output Type: Analog Resistance Output Resistance Range: 200? – 1M?	Light Sensor • analog sensor • LDR sensor • photoresistor • light dependent resistor
	EDT-00003-A	Piezo Sensor	ED - Electronic Device	Murata Manufacturing, SparkFun Electronics, Measurement Specialties, TE Connectivity	The Piezoelectric Ceramic Vibration Sensor is an analog sensor used to detect vibration, knocks, impacts, touch, and pressure. It generates a voltage through the piezoelectric effect when mechanical force is applied. The sensor is widely used in vibration monitoring, touch sensing, security systems, musical instruments, and Arduino-based projects.	Operating Voltage: 3.3V – 5V Output Type: Analog Voltage Output Sensor Type: Piezoelectric Ceramic Frequency Range: 1Hz – 10KHz	Knock Sensor • piezoelectric sensor • vibration sensor • analog sensor • ceramic sensor
	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
	EDT-00006-A	FSR Round Module	EM - Electronic-Electrical Modules	Interlink Electronics, SparkFun Electronics, DFRobot, Adafruit Industries, Ohmite, Tekscan	The Round Force Sensitive Resistor (FSR) is a pressure sensor with a 0.5-inch sensing area that changes resistance based on applied force. It detects pressure in the 100g to 10kg range and can be easily interfaced with microcontrollers using a voltage divider circuit. It is widely used in touch sensing, load detection, robotics, and Arduino projects.	Diameter: 1.8 cm Max Pressure: 10 Kg Min Pressure: 100 gm Sensing area: 1.4 cm (Dia.) Shape: Circular Length: 6 cm	FSR Sensor • Force Sensor • Pressure Sensor • Round Force Sensor • Force Sensitive Resistor
	EDT-00006-B	Force Sensor	EM - Electronic-Electrical Modules	Interlink Electronics, SparkFun Electronics, DFRobot, Adafruit Industries, Ohmite	The Force Sensitive Resistor (FSR) is a pressure sensor that changes resistance based on applied force. It detects pressure in the range of 100g to 10kg and is commonly used with voltage divider circuits. It is widely used in touch sensing, load detection, robotics, and Arduino-based projects.	Actuation Force: 0.1 N Clock Speed: 16MHz	FSR Sensor • Pressure Sensor • Force Sensitive Resistor • Square Force Sensor • Touch Sensor
	EDT-00007-A	Flex Sensor	ED - Electronic Device	Spectra Symbol, SparkFun, Adafruit, Interlink Electronics, Generic	The 2.2? Flex Sensor is a bend-detecting resistor that changes resistance when flexed. It is used to measure bending or motion and is commonly used in robotics, wearables, gaming controllers, and motion-sensing applications.	Bend Resistance: minimum 20K Ohms ±30% (@ 180° pinch bend) Flat Resistance: 10K Ohms ±30% Flex length: 2.2 inch (5.6 cm) Power: 0.5 Watts continuous Length: 7 cm	Electronics • flex sensor • bend sensor • sensor • analog • resistance • wearable

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
	EMA-00003-A	RGB LED Strip	EM - Electronic-Electrical Modules	Worldsemi, APA Electronics, Pololu	The Programmable RGB 60 LED Strip is an addressable LED strip with 60 individually controllable RGB LEDs per meter. Based on devices such as WS2812B or SK6812, each LED can display independent colors and brightness levels. It is widely used for lighting effects, animations, smart lighting, decorative displays, and Arduino projects.	Product Type: Programmable RGB LED Strip LED Type: WS2812B / WS2811 LEDs Per Meter: 60 LED Colors: RGB Full Color Operating Voltage: 5V DC (WS2812B) / 12V (WS2811)	Programmable RGB LED Strip • WS2812B LED Strip • NeoPixel LED Strip • Addressable RGB Strip
No Image	EMA-00003-B	RGB NeoPixel 8 LED	EM - Electronic-Electrical Modules	Worldsemi Co., Ltd., Generic / OEM	The WS2812B 8-Bit RGB LED Module features 8 individually addressable 5050 RGB LEDs with built-in driver ICs for precise color and brightness control. Operating on 5V and using a single-wire communication protocol, it enables vibrant lighting effects and animations with minimal wiring. Ideal for Arduino projects, IoT devices, decorative lighting, displays, and interactive electronic creations.	LED Model: WS2812B Package Type: 5050 SMD Number of LEDs: 8 Color Type: Full-Color RGB Bit Depth: 8-bit per channel (24-bit RGB total) Operating Voltage: DC 5V Control Interface: Single Data Line (Serial) Communication Protocol: One-Wire Timing Protocol PCB Color: White Mounting Type: Solderless / Plug-and-Play Length (mm): 105 Width (mm): 10 Height (mm): 6 Weight (g): 8 Shipping Weight: 0.01 kg Shipping Dimensions (L × W × H cm): 12 × 8 × 1	Arduino Compatible • WS2812B • NeoPixel Module • 8 LED RGB • 5050 SMD • Addressable LED • 5V RGB Strip • Programmable LED
	EMA-00004-B	LED Matrix Display	EM - Electronic-Electrical Modules	Kingbright, Everlight Electronics, Luckylight, SparkFun	The 8x8 Single Colour LED Dot Matrix Display is an LED module with 64 LEDs arranged in an 8x8 grid. It is used to display characters, symbols, patterns, scrolling text, and simple animations. Compatible with Arduino, ESP32, and Raspberry Pi, it is ideal for display and educational projects.	Product Type: LED Dot Matrix Display Matrix Size: 8 × 8 Number of LEDs: 64 LEDs Display Color: Red / Green / Yellow (varies) Operating Voltage: 2V – 5V	8x8 LED Matrix • LED Dot Matrix Display • Single Color LED Matrix • 8x8 Dot Matrix Module
	EMA-00006-B	Passive Buzzer	EM - Electronic-Electrical Modules	ED Series / Generic Compatible, KEYESTUDIO	Passive buzzer module for generating variable tones using PWM or frequency control. Operates on 1.5V–15V DC and produces sound in the 1.5–2.5 kHz range. Ideal for alarms, alerts, educational projects, Arduino applications, and microcontroller-based sound generation. Compact, reliable, and easy to interface with electronic circuits and development boards.	Model: Passive Buzzer Module Operating Voltage (VDC): 1.5 – 15 Max Operating Current (mA): 25 Tone Generator Frequency Range (kHz): 1.5 – 2.5 Mounting Type: PCB Mount Pin Pitch: 2.54 mm Compatibility: Arduino / Microcontrollers Length (mm): 15 Width (mm): 19.7 Height (mm): 10 Weight (g): 1 (approx.) Shipping Weight: 0.01 kg Shipping Dimensions (L × W × H): 6 × 4 × 2 cm	Passive Buzzer • KY-006 Module • Arduino Buzzer • PWM Buzzer • Sound Module
	EMA-00008-A	1 Channel Relay	EM - Electronic-Electrical Modules	Single Relay, Generic / OEM	The Single Channel 12V Relay Module is used to control high-voltage AC/DC devices using low-voltage microcontrollers. It supports high/low-level triggering and includes LED indicators. It is commonly used in home automation, IoT, and motor control applications.	Model: Relay Module Number of Channels: 1 Operating Voltage (VDC): 12 Trigger Type: High-Level / Low-Level Trigger Relay Contact Rating (AC): 10A @ 250V AC Relay Contact Rating (AC Alternate): 15A @ 125V AC Contact Type: COM, NO (Normally Open), NC (Normally Closed) Interface: 2.54 mm Header Pins Output Connection: 3-Pin Screw Terminal Indicators: Power LED + Relay Status LED Length (mm): 50 Width (mm): 25 Height (mm): 20 Weight (g): 16 Shipping Weight: 0.025 kg Shipping Dimensions (L × W × H cm): 7 × 4 × 3	Arduino Compatible • 12V Relay Module • Single Channel Relay • High/Low Trigger • SONGLE SRD-12VDC-SL-C • SPDT Relay • 10A 250VAC • IoT Switching Module
	EMA-00008-B	2 Channel Relay	EM - Electronic-Electrical Modules	Songle, Keyes, SunFounder, Elegoo, Generic	The 5V 2 Channel Relay Module is used to control high-power AC and DC devices using low-power microcontrollers like Arduino. It supports up to 10A switching per channel and includes LED indicators for status. It is commonly used in home automation, IoT systems, and industrial control applications.	No. of Channels: 2 Operating Temperature Range: -40 to 85 °C Operating Voltage: 2.5 ~ 5.5 V (DC) Switching Voltage(AC): 240V@10A Switching Voltage(DC): 30V@10A Trigger Current: 20 mA Trigger Voltage: 5V (DC) Length: 4.3 cm Height: 1.7 cm Width: 4.3 cm	arduino • module • 5v • relay module • 2 channel • switching • control
	EMA-00010-A	2 Channel Driver	EM - Electronic-Electrical Modules	STMicroelectronics, Keyestudio, SparkFun, HiLetgo	The L298N 2 Channel Motor Driver Module is a dual H-Bridge motor control board used to drive two DC motors or one stepper motor independently. Based on the L298N IC, it works with Arduino, ESP32, and Raspberry Pi. It includes a heat sink, protection diodes, and a 5V regulator, making it ideal for robotics and automation projects.	Product Type: Dual Motor Driver Module Driver IC: L298N Motor Channels: 2 DC Motors Motor Voltage: 5V – 35V DC Logic Voltage: 5V	DC Motor Driver Board • L298N Motor Driver • L298N 2 Channel Driver • Dual H-Bridge Module

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
No Image	EMA-00010-B	Motor Driver Module	EM - Electronic-Electrical Modules	Texas Instruments, STMicroelectronics, NXP Semiconductors, ON Semiconductor, Toshiba	The L293D Motor Driver Module is a dual H-bridge IC used to control DC and stepper motors in embedded systems. It enables motor direction control and speed regulation using PWM signals from microcontrollers like Arduino. The module supports up to 12V and 600mA per channel, making it suitable for robotics, automation systems, and DIY electronics projects requiring reliable motor control.	Driver IC: L293D Motor Type: DC & Stepper Motor Operating Voltage: 4.5V – 12V Current Rating: 600mA per channel Peak Current: 600mA Control Method: Direction + PWM Speed Control Number of Channels: 2 (H-Bridge) Arduino Compatible: Yes (via wires) Polarity Protection: NO Cooling Fan: NO Dimensions: 48 x 34 x 14 mm Weight: 15g	motor • l293d • motor driver • dc motor • stepper motor • robotics • arduino • h-bridge • pwm
	EMA-00010-C	L293D Motor Driver	EM - Electronic-Electrical Modules	Texas Instruments, STMicroelectronics, SparkFun	The L293D Motor Driver IC is a dual H-Bridge driver used to control the speed and direction of DC and stepper motors. It acts as an interface between microcontrollers and higher-current motors, enabling reliable bidirectional motor control. It is widely used in robotics, automation, and embedded projects.	Product Type: Motor Driver IC Driver Type: Dual H-Bridge Motor Channels: 2 DC Motors / 1 Stepper Motor Logic Voltage: 4.5V – 7V Motor Supply Voltage: 4.5V – 36V	Arduino Motor Driver • Stepper Motor Driver • Robot Motor Controller • L293D Motor Driver • L293D IC • Dual H-Bridge Driver • DC Motor Driver IC • L293D Driver Module
No Image	EMA-00010-D	Dual Motor Driver	EM - Electronic-Electrical Modules	Texas Instruments, STMicroelectronics, SparkFun	The L293D Motor Driver IC is a dual H-Bridge driver used to control DC and stepper motors with microcontrollers like Arduino, ESP32, and Raspberry Pi. It enables low-power circuits to drive higher-current motors safely and supports bidirectional motor control with built-in protection diodes.	Product Type: Motor Driver IC IC Type: Dual H-Bridge Motor Channels: 2 DC Motors or 1 Stepper Motor Logic Voltage: 4.5V – 7V Motor Voltage: 4.5V – 36V Output Current: 600mA per channel	Arduino Motor Driver • Stepper Motor Driver • Robot Motor Controller • L293D Motor Driver • L293D IC • Dual H-Bridge Driver • DC Motor Driver IC • L293D Driver Module
	EMA-00010-E	L298N Driver	EM - Electronic-Electrical Modules	STMicroelectronics, SparkFun, Keyestudio	The L298N Motor Driver Module is a dual H-Bridge motor driver used to control the speed and direction of DC and stepper motors. It allows Arduino, ESP32, and other microcontrollers to drive motors requiring higher power. It is widely used in robotics, automation, and motor control projects.	Product Type: Motor Driver Module IC Used: L298N Dual H-Bridge Motor Channels: 2 DC motors or 1 stepper motor Operating Voltage (Logic): 5V Motor Voltage: 5V – 35V DC	L298 Motor Driver • L298N Module • Dual H-Bridge Motor Driver • DC Motor Driver Board • Arduino Motor Driver • Stepper Motor Driver • Robot Motor Controller • L298N H-Bridge Module
	EMC-00001-A	RF Module Kit	EM - Electronic-Electrical Modules	HopeRF, Wireless Tag	The RF 433/315 MHz Transmitter and Receiver Module Kit is a wireless communication system used to send and receive data using radio frequency signals. It operates at 433 MHz or 315 MHz and is commonly used in remote controls, home automation, wireless sensors, and Arduino projects.	Product Type: RF Wireless Communication Module Frequency: 433 MHz / 315 MHz Operating Voltage: 3V – 5V DC Data Rate: Up to ~10 kbps (typical) Range: 20m – 100m (depends on antenna & environment)	RF 433MHz Module • 315MHz RF Module • Wireless Transmitter Receiver Kit • RF Communication Module • Arduino RF Module • ASK RF Module • Wireless Remote Module • 433MHz RF Pair Kit
	EMC-00002-A	ESP8266 WiFi Module	EM - Electronic-Electrical Modules	Espressif Systems, Ai-Thinker, SparkFun	The ESP8266 WiFi Module is a low-cost IoT module with built-in WiFi used to connect devices to wireless networks. It enables communication with cloud platforms, servers, and apps. It is widely used in smart home systems, automation, and IoT projects.	Product Type: WiFi Microcontroller Module Core Chip: ESP8266EX CPU: 32-bit Tensilica L106 Operating Voltage: 3.3V	ESP8266 WiFi Module • ESP8266 NodeMCU • ESP8266 ESP-01 • WiFi IoT Module • Arduino WiFi Module • ESP8266 Wireless Module • ESP8266 ESP-12E • ESP8266 IoT 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

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
	EMC-00004-A	Bluetooth Module	EM - Electronic-Electrical Modules	HC Series / Generic Compatible, WAVESHARE, KEYESTUDIO, SunFounder	The HC-05 Bluetooth Module is a 6-pin wireless communication device used for UART-based data transfer between microcontrollers and Bluetooth-enabled devices. Operating in the 2.4GHz ISM band with GFSK modulation, it supports both Master and Slave modes. Featuring AT command configuration and an onboard push button for AT mode access, it is ideal for wireless control, automation, and IoT projects.	Operating Voltage: 3.6V – 6V DC Input Current: 50 mA Operating Frequency: 2.4 GHz ISM Band Modulation Type: GFSK (Gaussian Frequency Shift Keying) Emission Power: 4 dBm (Class 2) Receiver Sensitivity: -84 dBm at 0.1% BER Maximum Range: 10 meters (typical) Interface Pins: EN/KEY, VCC, GND, TXD, RXD, STATE AT Command Support: Yes Onboard Button: Yes (AT Mode Selection) Length (mm): 43 Width (mm): 16.5 Height (mm): 7 Weight (g): 5 Shipping Weight: 0.01 kg Shipping Dimensions (cm): 5 × 3 × 1	HC-05 • Bluetooth Module • UART Bluetooth • 6-Pin Bluetooth • Master Slave Module • Arduino Bluetooth
No Image	EMC-00005-A	RFID READER MODULE	EM - Electronic-Electrical Modules	NXP Semiconductors, Ai-Thinker, SunFounder, Keyestudio, WAVESHARE	The RC522 RFID Reader/Writer Kit is a 13.56MHz RFID module based on the MFRC522 IC with cards and tags. It uses SPI communication and supports ISO 14443A/MIFARE contactless data exchange. It is widely used in access control, attendance systems, IoT projects, and embedded RFID applications.	Operating Frequency (MHz): 13.56 Reading Distance (m): 2 cm to 5 cm Supply Voltage (V): 3.3V Operating Current (mA): 13 ~ 26 SPI data rate (Mbit/s): 10 Length (mm): 60 Width (mm): 39.5 Weight (g): 20	RC522 • RFID Reader • NFC Module • MFRC522 • 13.56MHz RFID • Arduino RFID
No Image	EMC-00006-B	GSM Module	EM - Electronic-Electrical Modules	SIMCom, DFRobot, Itead Studio	The SIM900A GSM Module is a wireless communication module used for SMS, voice, and data applications over GSM networks. It supports UART communication and SIM card integration for microcontrollers like Arduino. It is widely used in IoT systems, remote monitoring, automation, and embedded communication projects.	Frequency bands: Dual-band GPRS connectivity: GPRS multi-slot class 10 (default) , GPRS multi-slot class 8 (option) Operating Temperature Range: -30 to 80 °C Supply Voltage: 3.4 – 4.5 V Dimensions (LxWxH): 8.5x5.7x2cm (approx)	GSM Module • GPRS Module • SMS Module • IoT Module • Arduino GSM • SIM900A
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
	EMP-00001-A	Adapter	EM - Electronic-Electrical Modules	Mean Well, Hi-Link, Delta Electronics	The 9V Wall Power Supply Adapter is an AC-to-DC adapter that provides a stable 9V DC output for electronic devices and circuits. It converts AC mains power into regulated DC power and is commonly used for Arduino boards, sensors, routers, audio devices, and DIY electronics projects.	Product Type: AC to DC Power Adapter Output Voltage: 9V DC Input Voltage: 100V – 240V AC Output Current: 500mA / 1A / 2A Frequency: 50/60 Hz	Wall Power Supply • Arduino Power Adapter • 9V Power Adapter • 9V DC Adapter • 9V SMPS Adapter
	EMP-00001-B	Power Adapter	EM - Electronic-Electrical Modules	Mean Well, Hi-Link, Delta Electronics	The 5V Wall Power Supply Adapter is an AC-to-DC adapter that provides a stable 5V DC output for electronic devices and circuits. It converts mains AC power into low-voltage DC and is commonly used for Arduino boards, sensors, IoT devices, LED systems, and other electronics projects.	Product Type: AC to DC Power Adapter Output Voltage: 5V DC Input Voltage: 100V – 240V AC Output Current: 1A / 2A / 3A Power Supply Type: SMPS	SMPS Adapter • 5V Power Adapter • 5V DC Adapter • Wall Power Supply • Arduino Power Adapter
	EMP-00001-C	Power Supply Adapter	EM - Electronic-Electrical Modules	Generic / OEM, Mean Well, Delta Electronics, LEICKE	The 12V 2A SMPS Power Adapter is a regulated power supply that converts 100–240V AC to 12V DC output. It provides stable power up to 2A and is commonly used for Arduino projects, routers, DC motors, LCDs, and other electronic devices.	Input Voltage: 100–240V AC Output Voltage: 12V DC Maximum Output Current: 2A Output Connector Size: 5.5 × 2.5 mm Polarity: Center Positive Operating Temperature: -25°C to +60°C Shipping Weight: 0.02 kg Shipping Dimensions: 10 × 6 × 6 cm	12V Adapter • 12V 2A Power Supply • SMPS Adapter • AC-DC Adapter • 5.5x2.5mm Power Adapter
	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

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
	EMS-00003-A	Accelerometer	EM - Electronic-Electrical Modules	InvenSense, Generic Electronics, DFRobot, SparkFun Electronics	The GY-521 Accelerometer Module is a 6-axis motion tracking sensor board based on the MPU6050 MEMS sensor IC. It combines a 3-axis accelerometer and a 3-axis gyroscope in a single compact module, allowing accurate measurement of acceleration, tilt, rotation, vibration, and motion.	Product Type: Accelerometer + Gyroscope Module Model: GY-521 Main IC: MPU6050 Communication: I2C Operating Voltage: 3V – 5V DC	GY-521 Accelerometer Module • MPU6050 Sensor Module • 6DOF Motion Sensor • Gyroscope Accelerometer Module
	EMS-00005-A	Ultrasonic Sensor	EM - Electronic-Electrical Modules	MWduino / Generic, ElecFreaks, KEYESTUDIO, SunFounder	Ultrasonic distance sensor module that uses 40kHz sound waves for accurate, non-contact distance measurement. Operates on 3.3–5.5V DC and features a simple 4-pin interface (VCC, Trig, Echo, GND) for easy integration. Ideal for robotics, obstacle avoidance, automation systems, parking sensors, distance measurement, and Arduino-based projects.	Power Supply (V): +5V DC Working Current (mA): 15 mA Output Signal: Electrical frequency signal Ranging Distance: 2 cm – 400 cm Distance Resolution: 0.3 cm Measuring Angle: 30° Operating Voltage Range (V): 3.3V – 5.5V Interface Type: 4-pin (VCC, Trig, Echo, GND) Shipping Weight: 0.007 kg Shipping Dimensions (L × W × H): 9 × 6 × 2 cm	Ultrasonic Sensor • HC-SR04+ • Distance Sensor • Arduino Sensor • Obstacle Detection Module
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
	EMS-00009-A	Heart Pulse Sensor	EM - Electronic-Electrical Modules	Maxim Integrated, Generic Electronics, SparkFun, DFRobot	The Heart Pulse Rate Sensor is a biometric sensor used to detect heartbeats and measure pulse rate in BPM. It works using Photoplethysmography (PPG), where light is emitted into the skin and changes in reflected light due to blood flow are detected. It is used in health monitoring, fitness devices, and Arduino projects.	Product Type: Heart Pulse Rate Sensor Sensor Type: Photoplethysmography (PPG) Operating Voltage: 3.3V – 5V DC Output Type: Analog / I2C Measured Parameter: Pulse Rate (BPM)	Heart Pulse Sensor • Pulse Rate Sensor • Heartbeat Sensor Module • Pulse Detection Sensor • Arduino Pulse Sensor • BPM Sensor • Heart Rate Monitor Sensor • Pulse Sensor Amped
	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
No Image	EMS-00010-D	MQ-5 Gas Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Winsen Electronics, WAVESHARE	The MQ-5 Gas Sensor Module is used to detect combustible gases like LPG, methane, and natural gas. It changes conductivity based on gas presence and provides an analog output signal. It is widely used in gas leakage detection, safety systems, and IoT projects.	Model: MQ-5 Operating Temperature Range: -20 to 40 °C Operating Voltage: 5 V Length: 3.2 cm Height: 2.2 cm Width: 2 cm	Arduino Compatible • gas sensor • methane sensor • CNG detector • CH4 sensor

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
	EMS-00010-E	MQ-6 LPG Gas Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Zhengzhou Winsen Electronics, DFRobot	The MQ-6 Gas Sensor Module is used to detect LPG, propane, and butane gas leaks in the air. It changes conductivity based on gas concentration and provides an analog output signal. It is widely used in gas leakage detection, safety systems, and IoT projects.	Model: MQ-6 Operating Temperature Range: -20 to 40 °C Operating Voltage: 5 V Length: 3.2 cm Height: 2.2 cm Width: 2 cm	arduino • gas sensor • methane sensor • MQ6 • LPG Sensor • Propane Sensor • Butane Sensor
	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
No Image	EMS-00010-G	MQ-135 Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Zhengzhou Winsen Electronics, Futurlec	The MQ-135 Air Quality Sensor Module is used to detect harmful gases and monitor air pollution levels. It changes its conductivity based on gas concentration and provides an analog output. It is sensitive to gases like ammonia, benzene, smoke, and other pollutants. It is widely used in air quality monitoring, IoT systems, and environmental safety projects.	Model: MQ-135 Detecting range: 100ppm to 1000ppm Operating current: 150 mA Operating Voltage: 5 V Length: 3.2 cm Height: 2.7 cm Width: 2 cm	Air Quality Sensor • MQ135 • Ammonia Sensor • NOx Sensor • CO2 Sensor • Smoke 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?) gas in the range of 100 ppm to 10,000 ppm. It works using a SnO? 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?) 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-00018-A	Water Level Sensor	EM - Electronic-Electrical Modules	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-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? 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? (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, Keystudio	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°), 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

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
	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
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
	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
	MMB-00002-A	Compartment Box	MM - Mechanical Module	Stanley, Pro'sKit, Tactix, Deli	The 8-compartment storage box is a durable organizer for storing electronic components, motors, sensors, screws, wires, connectors, Arduino accessories, tools, and DIY hardware. It features a sturdy plastic body with a transparent lid and removable dividers for flexible storage. Ideal for workshops, labs, and DIY projects, it keeps items neatly organized and easily accessible.	Product Type: Compartment Storage Box Number of Compartments: 8 Material: Plastic / Polypropylene Box Type: Large Organizer Box Storage Items: Sensors, Screws, Components	Storage Box • Component Storage Box • Parts Organizer • DIY Storage • 8 Compartment Box • Large Organizer Box • Hardware Organizer
	MMC-00001-A	M-F Jumper Wire	MM - Mechanical Module	MWduino / Generic	20cm male-to-female jumper wires designed for flexible and reliable circuit connections. Includes 20 multi-color wires with 2.54mm male pins and female header connectors for easy interfacing. Ideal for Arduino, Raspberry Pi, sensors, modules, breadboards, prototyping, testing, and educational electronics projects.	Item Type: Jumper Wire Cable Type: Male to Female Cable Length (cm): 20 Quantity (pcs): 20 Connector Type: Male Pin ? Female Header Color Coding: Multi-color (10–20 assorted colors) Compatibility: Breadboards, Arduino, Raspberry Pi, Sensors Weight (g): 16 Shipping Weight: 0.016 kg Shipping Dimensions (L × W × H): 10 × 7.5 × 2 cm	Breadboard Wire • Arduino Wire • Prototyping Cable • Jumper Wire • Male to Female
	MMC-00001-B	M-M Jumper Wire	MM - Mechanical Module	Male-to-Male Jumper Wire (20 cm, Pack of 20)	20cm male-to-male jumper wires designed for quick and reliable circuit connections. Includes 20 multi-color flexible wires with standard 2.54mm male header pins for easy interfacing. Ideal for breadboards, Arduino, Raspberry Pi, sensors, modules, prototyping, circuit testing, and educational electronics projects.	Item Type: Jumper Wire Cable Type: Male to Male Cable Length (cm): 20 Quantity (pcs): 20 Connector Type: Male Header Pins Color Coding: Multi-color (10–20 assorted colors) Compatibility: Breadboards, Arduino, Raspberry Pi, Sensors Weight (g): 16 Shipping Weight: 0.016 kg Shipping Dimensions (L × W × H): 10.5 × 7.5 × 2 cm	Breadboard Wire • Arduino Wire • Prototyping Cable • Jumper Wire • Male to Male
	MMC-00001-C	F-F Jumper Wire	MM - Mechanical Module	TWIN INDUSTRIES	20 cm Female-to-Female jumper wires for reliable connections between pins or headers. Pack of 20 flexible, color-coded wires compatible with breadboards and Arduino projects. Ideal for prototyping, testing, educational use, and sensor connections.	Cable Type: Female to Female Cable Length (cm): 20 Quantity (pcs): 20 Connector Type: Female Header ? Female Header Color Coding: Multi-color (10–20 assorted colors) Compatibility: Breadboards, Arduino, Raspberry Pi, Sensors Weight (g): 17 Shipping Weight: 0.017 kg Shipping Dimensions (L × W × H): 10 × 7.5 × 2 cm	Female-to-Female Jumper • Breadboard Wire • Arduino Wire • Prototyping Cable • 20cm • Multi-color
	MMC-00005-A	Male-to-Male Cable	MM - Mechanical Module	Belkin, UGREEN, CableCreation, StarTech	The RJ11 4P4C Male-to-Male Telephone Extension Cable is used for telephone and low-speed communication systems. It provides reliable wired connectivity for landline phones, modems, intercoms, and fax machines. It is also used in networking experiments and electronics projects.	Connector Type: RJ-11 4P4C Male to Male Cable Type: Telephone Extension Cable Number of Conductors: 4P4C Cable Length: 1m – 10m	RJ11 cable • 4P4C cable • telephone extension cable • male to male cable • communication cable

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
No Image	MMC-00006-A	DC Jack Connector	MM - Mechanical Module	CUI Devices, Kycon, SparkFun, Adafruit	The 9V DC Jack Connector is a power connector used to supply DC power to electronic circuits and devices. It provides a secure connection between power adapters and systems. It is commonly used in Arduino projects, robotics, embedded systems, and DIY electronics for stable power delivery.	Connector Type: DC Barrel Jack Input Voltage: 9V DC Connector Size: 5.5mm x 2.1mm	DC jack • 9V connector • barrel jack • power connector • DC socket • Arduino power jack
	MMD-00001-B	BO Motor Dual Shaft	MM - Mechanical Module	Generic Robotics, Robu.in, FlyRobo, DFRobot, Keystudio	The BO2 Side Shaft Plastic Gear Motor is a lightweight DC geared motor used in robotics, smart cars, line follower robots, obstacle avoidance robots, STEM kits, and Arduino projects. It features a plastic gearbox with dual side shafts for easy wheel mounting and smooth power transmission. It provides low-speed, high-torque performance, making it ideal for educational and DIY applications.	Product Type: Plastic Geared DC Motor Motor Type: BO2 Side Shaft Motor Operating Voltage: 3V – 12V DC Rated Voltage: 6V DC Speed Range: 60RPM – 300RPM	Arduino Motor • BO Motor • DC Gear Motor • BO2 Gear Motor • Plastic Gear Motor • Side Shaft Motor • Robot Motor
	MMD-00002-B	Servo Motor	MM - Mechanical Module	TowerPro, MWduino Compatible, Generic	Compact 9g micro servo motor with 180° rotation for precise position control. Provides 1.2–1.6 kg-cm torque and fast response, making it ideal for robotics, RC models, automation, and educational projects. Compatible with Arduino and other microcontrollers using standard PWM signals. Lightweight, reliable, and easy to integrate into DIY and prototyping applications.	Item Type: TowerPro Servo Motor Model Series: SG Series Model No.: SG90 Rotation (Degree): 180° Torque Rating (kg-cm): 1.2 to 1.6 Operating Voltage (VDC): 3.0 – 7.2 Operating Speed @ 4.8V: 0.10 sec/60° Stall Torque @ 4.8V (kg-cm): 1.2 Stall Torque @ 6.6V (kg-cm): 1.6 Operating Temperature (°C): -30 to 60 Gear Type: Glass Fiber Servo Plug Type: JR Cable Length (cm): 25 Length (mm): 22.8 Width (mm): 12.6 Height (mm): 34.5 Weight (g): 9 Shipping Weight: 0.014 kg Shipping Dimensions (L x W x H): 8 x 6 x 4 cm	SG90 Servo • 9g Servo Motor • Micro Servo • RC Servo • Arduino Servo
	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
	MMD-00003-A	Micro gear motor	MM - Mechanical Module	Pololu, DFRobot, Adafruit, SparkFun	N20 micro gear motors are compact DC motors with integrated metal gearboxes that provide low-speed, high-torque performance in a small size. They are widely used in robotics, smart cars, line follower robots, automation systems, and DIY electronics projects. Their compact design makes them ideal for space-constrained and educational applications requiring precise and reliable motion control.	Product Type: Micro Gear Motor Operating Voltage: 3V – 12V DC Rated Voltage: 6V DC Speed Range: 15RPM – 1000RPM Shaft Diameter: 3 mm	Mini Motor • Arduino Motor • Robotics Motor • Metal Gear Motor • N20 Motor • Micro Gear Motor • DC Gear Motor
	MMD-00003-B	150 RPM Geared Motor	MM - Mechanical Module	Johnson Motor, DFRobot, Robu.in, FlyRobo	The 150 RPM 12V geared DC motor is a high-torque motor with an integrated gearbox for efficient and controlled motion. It reduces speed while increasing torque, making it suitable for robotics, smart vehicles, automation systems, conveyor mechanisms, and DIY projects. It is ideal for Arduino-based applications requiring precise and reliable movement.	Product Type: DC Geared Motor Rated Voltage: 12V DC Speed: 150 RPM Gearbox Type: Metal Gearbox Shaft Diameter: 6 mm Current Consumption: 100mA – 500mA	150RPM Motor • Geared DC Motor • 12V Gear Motor • High Torque Motor • Robotics Motor • DIY Motor • Metal Gear Motor
	MMD-00004-A	Vibrating Motor	MM - Mechanical Module	Precision Microdrives, Adafruit, Jinlong Machinery, Generic Motors, DFRobot	DC vibrating motors are compact motors with an off-center weight that creates vibration when the motor rotates. They are widely used in mobile phones, wearables, robotics, alert systems, haptic feedback devices, and Arduino projects. Lightweight and easy to use, they are ideal for DIY electronics and interactive applications.	Product Type: Vibrating DC Motor Operating Voltage: 1.5V – 5V DC Speed: 8000 – 12000 RPM Current Consumption: 60mA – 100mA	Mini Motor • Arduino Motor • Vibration Motor • Vibrating Motor • Coin Motor • DC Vibration Motor • Haptic Motor

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
	MMD-00005-A	Mini Water Pump	MM - Mechanical Module	Adafruit, SunFounder, DFRobot, Generic Pump Manufacturer	Mini submersible water pumps are compact DC-powered pumps used for water circulation in fountains, aquariums, hydroponics, cooling systems, and automatic watering projects. They operate fully submerged and provide smooth, low-noise, continuous water flow. Lightweight and easy to install, they are ideal for Arduino, DIY, and educational applications.	Product Type: Mini Submersible Water Pump Operating Voltage: 3V – 6V DC Rated Voltage: 5V DC Current Consumption: 100mA – 220mA Flow Rate: 80 – 120 L/H Outlet Diameter: 7mm – 8mm	Mini Water Pump • Submersible Pump • DC Water Pump • Aquarium Pump • DIY Pump • Arduino Water Pump • Micro Pump
	MMK-00001-A	Jumper Wire Kit	MM - Mechanical Module	SparkFun, Adafruit, Pololu, Generic	The Jumper Wire Kit is a set of male-to-male, male-to-female, and female-to-female wires used for breadboard prototyping and circuit connections. It enables easy, solder-free connections between components, sensors, and microcontrollers. It is widely used in Arduino projects, robotics, IoT systems, educational kits, and DIY electronics.	Cable Types: Male-Female, Male-Male, Female-Female Quantity: 80 MF, 80 MM, 80 FF Wire Length: 10cm – 30cm Conductor Material: Copper	Breadboard Wire • jumper wires • Dupont cable • MF cable • MM cable • FF cable
	MMM-00001-A	BO Motor	MM - Mechanical Module	FlyRobo, RoboticsDNA, RoboElements	The 100 RPM Dual Shaft BO Motor is a low-voltage DC geared motor used for robotics and motion control. It provides good torque at 3–6V and features a dual shaft for easy wheel mounting. It is widely used in robot cars, DIY projects, and educational kits.	Gearbox Shape: Straight Operating Voltage: 3 ~ 6 V Rated Speed After Reduction: 100 RPM Shaft Diameter: 0.55 cm (Double) Shaft Length: 0.85 cm Dimensions (LxWxH): 7 x 2.3 x 1.9 cm	robotics • arduino • BO Motor • Gear Motor • Smart Car
	MMP-00003-A	Screw Pack	MM - Mechanical Module	EFT EPOWER, EFT EPOWER, Generic / OEM	The M6×60 Screw Pack is used for assembling and securing drone arms in EFT drone models. It provides strong fastening and structural stability for motors, propeller mounts, and frame assemblies. It is compatible with E416P, E616P, and E410P models and ensures durable and reliable drone construction and repair.	Outer Diameter: 6 mm Length: 60 mm Standard: M6 × 60 Weight: 100 g Shipping Weight: 0.11 kg Shipping Dimensions: 10 × 8 × 3 cm	M6×60 Screw • Drone Arm Screw • EFT Spare Part
	TLC-00004-A	General Scissors	TL - Tools	Stanley, Scotch, Taparia, Fiskars	General purpose scissors are versatile cutting tools used for cutting paper, cardboard, cloth, plastic, tape, and light materials. They have sharp blades and comfortable handles for easy, precise cutting. Commonly used in schools, offices, workshops, and DIY projects, they are essential for everyday tasks.	Product Type: General Purpose Scissors Blade Material: Stainless Steel Blade Length: 5 inch – 8 inch Application: Paper, Plastic, Cloth	DIY Tool • General Purpose Scissors • Utility Scissors • Cutting Scissors • Office Scissors • Multipurpose Scissors
	TLC-00006-A	Tip Cleaner	TL - Tools	Pro'sKit, Hakko, YIHUA, Bakon	Solder tip cleaners are used to clean soldering iron tips without reducing temperature. Made from fine brass shavings, they remove oxidation, burnt flux, and excess solder easily. They help extend tip life and maintain good performance. Ideal for electronics repair, PCB soldering, and DIY work, they ensure clean and consistent soldering results.	Product Type: Brass Wool Tip Cleaner Usage: Soldering Tip Cleaning Compatible With: Soldering Stations & Irons	Brass Wool Cleaner • Solder Tip Cleaner • Soldering Cleaner • Brass Sponge • Tip Cleaning Ball • Soldering Accessory
	TLK-00001-A	Tool Kit	TL - Tools	Pro'sKit, Pro'sKit, Pro'sKit, Pro'sKit	Professional Tool Kits are complete sets for electronics repair, PCB assembly, networking, electrical work, mobile servicing, robotics, and DIY projects. They include screwdrivers, pliers, cutters, tweezers, soldering tools, and precision instruments. Durable, accurate, and ideal for professionals, students, and hobbyists for all repair and assembly tasks.	Product Type: Professional Tool Kit Tool Count: 25 pcs – 100 pcs Included Tools: Screwdrivers, Pliers, Cutters	Professional Tool Kit • Electronics Tool Kit • Repair Tool Kit • DIY Tool Kit • Maintenance Kit • Technician Tool Set
	TLM-00002-A	Wire Cutter	TL - Tools	Generic / OEM, Pro'sKit, Knipex	A diagonal wire cutter is a precision hand tool designed for clean and accurate cutting of electrical wires, component leads, and soft metals. It features ergonomic non-slip grip handles for comfort and a spring-loaded mechanism that reduces hand fatigue during extended use. Compact, durable, and easy to handle, it is ideal for electronics assembly, repairs, prototyping, and DIY projects.	Item Type: Diagonal Wire Cutter Material: High-Carbon Steel Blade with ABS Handle Color: Blue Length (mm): 185 Width (mm): 95 Height (mm): 15 Weight: 60 g Shipping Weight: 0.062 kg Shipping Dimensions: 19 × 10 × 2 cm	Diagonal Cutter • Wire Cutter • Cutting Pliers • Side Cutter • Electrical Tool

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
	TLM-00004-C	Mini hacksaw	TL - Tools	Stanley, Taparia, Lenox	A mini hacksaw is a compact hand tool used for cutting metal rods, PVC pipes, plastic sheets, bolts, and small materials with precision. Its lightweight and ergonomic design makes it easy to use in tight spaces. Commonly used in electronics labs, robotics projects, plumbing, maintenance work, and DIY applications, it provides reliable and controlled cutting performance for everyday tasks.	Blade Length: 150 mm / 6 inch / 10 inch Handle Type: Ergonomic Grip / ABS Handle Weight: Approx. 70g – 250g Usage: DIY, Electronics, Plumbing, Workshop Cutting Material: Metal, PVC, Plastic, Aluminum	DIY Tool • Mini Hacksaw • Junior Hacksaw • Hand Saw • Metal Cutter • Compact Saw • Precision Cutting Tool
	TLM-00005-B	Long Nose Pliers	TL - Tools	Taparia, Stanley, Bosch, Proskit	Long nose pliers are versatile hand tools designed for gripping, bending, holding, and cutting wires in electronics, electrical work, jewelry making, and DIY applications. Their long, narrow, pointed jaws provide easy access to confined spaces and enable precise handling of small components. Durable and comfortable to use, they are essential tools for repair, assembly, and maintenance tasks.	Handle Type: Insulated Grip Length: 5 inch – 8 inch Usage: Wire Bending, Gripping, Cutting	DIY Tool • Long Nose Plier • Needle Nose Plier • Electronics Plier • Mini Plier • Precision Tool • Wire Handling Tool
	TLP-00001-A	Hot Melt Glue Gun	TL - Tools	Generic / OEM, Stanley, Bosch, Pro'sKit	A 40W hot melt glue gun is a versatile tool designed for bonding, crafting, repairs, and DIY projects. It features a standard operating temperature, ergonomic trigger mechanism for precise glue flow control, and an integrated ON/OFF switch for added safety and convenience. Compatible with standard glue sticks, it delivers strong adhesion and reliable performance for various materials.	Item Type: Hot Melt Glue Gun Color: Black Operating Voltage: 110–220 V AC Power Consumption: 40 W Melting Point: 190°C (±10°C) Compatible Glue Stick Diameter: 7 mm Weight: 180 g Shipping Weight: 0.2 kg Shipping Dimensions: 27 × 16 × 5 cm	Compatible with 11mm diameter glue sticks and suitable for DIY projects • electronics work • furniture repair • decoration • packaging • and household fixes.
	TLP-00004-A	Cordless Power Drill	TL - Tools	Bosch, Robert Bosch GmbH	The Professional is a compact 12V cordless impact drill designed for drilling and screwdriving in wood, metal, and masonry. It features variable speed control, reverse rotation, and impact drilling for versatile use. Lightweight and durable, it is easy to handle and ideal for professional work, home repairs, and DIY projects requiring reliable and portable power tool performance.	Voltage: 12V Battery Type: Lithium-Ion No Load Speed: 0–400 / 0–1500 RPM Chuck Capacity: 10 mm Max Torque: 30 Nm Impact Rate: Up to 22,500 BPM	DIY Tool • Cordless Drill • Impact Drill • 12V Drill • Power Tool • Electric Drill • Professional Drill • Bosch Tool