

Parts Export

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Total Parts: 10

Image	Part Number	Name	Category	Manufacturer	Description	Specification	Tags
No Image	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 serial communication device designed for UART-based data transfer between microcontrollers and Bluetooth-enabled devices. Operates in the 2.4GHz ISM band using GFSK modulation and supports both Master and Slave modes. Supports AT command configuration and includes an onboard push button for AT mode entry.	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 x 3 x 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	RC522 - RFID Reader /Writer with Cards Kit includes a 13.56MHz RF reader and writer module that uses an RC522 IC and two S50 RFID cards tag. The MF RC522 is an integrated transmission module for contactless communication at 13.56 MHz. RC522 supports ISO 14443A/MIFARE mode. RC522 - RFID Reader features an outstanding modulation and demodulation algorithm to serve effortless RF communication at 13.56 MHz. The S50 RFID Cards will ease up the process helping you to learn and add the 13.56 MHz RF transition to your project. The module uses SPI to communicate with microcontrollers. The open-hardware community already has a lot of projects exploiting the RC522 – RFID Communication, using Arduino.	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-A	GSM-GPRS Module (SIM800L)	EM - Electronic-Electrical Modules	SIMCom, DFRobot, Waveshare	SIM800L GSM/GPRS module is a miniature GSM modem, which can be integrated into a great number of IoT projects. You can use this module to accomplish almost anything a normal cell phone can; SMS text messages, make or receive phone calls, connecting to the internet through GPRS, TCP/IP, and more! To top it off, the module supports quad-band GSM/GPRS network, meaning it works pretty much anywhere in the world. An antenna is made of wire – very useful in narrow places.	IC Chip: SIM800L Input Voltage: 3.4V – 4.4V Peak Current: 2 A	SIM800L • GSM Module • GPRS Module • SMS Module • IoT Module • Arduino GSM • ESP8266 GSM
No Image	EMS-00010-B	Alcohol Gas Sensor Module	EM - Electronic-Electrical Modules	Hanwei Electronics, Winsen Electronics, Waveshare	MQ-3 Alcohol Gas Sensor Module is used to detect alcohol concentration in the air and provides both analog and digital outputs. The module is based on the MQ-3 gas sensor which uses SnO ₂ (Tin Dioxide) sensing material. The sensor operates from 2.5V to 5V and includes an onboard potentiometer to adjust the digital output threshold level.	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
No Image	EMS-00010-C	Methane and Natural Gas sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Winsen Electronics, Waveshare	MQ-4 Gas Sensor Module is a high sensitivity gas detection module used for sensing Methane (CH ₄), CNG, and natural gas leakage in the environment. An onboard potentiometer allows adjustment of the gas detection threshold level for digital output triggering. MQ-4 sensor is widely used in gas leakage alarms, industrial safety systems, and smart monitoring projects.	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	Natural Gas and LPG Analog Sensor	EM - Electronic-Electrical Modules	Hanwei Electronics, Winsen Electronics, Waveshare	The MQ-5 is used in gas leakage detecting equipment in consumer and industry applications, this sensor is suitable for detecting LPG, natural gas, coal gas. Avoid the noise of alcohol, cooking fumes, and cigarette smoke. The sensitivity can be adjusted by the potentiometer. The sensitive material of the MQ-5 gas sensor is SnO ₂ , which with lower conductivity in clean air. When the target combustible gas exists, The sensor's conductivity is higher along with the gas concentration rising. Please use a simple electro circuit. Convert change of conductivity to the corresponding output signal of gas concentration. The sensor could be used to detect different combustible gas especially Methane, it is with low cost and suitable for different application	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 • MQ-5 • methane sensor • CNG detector • CH4 sensor

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No Image	EMX-00003-A	Arduino Mega	EM - Electronic-Electrical Modules	Arduino, Elegoo, RobotDyn, Keyestudio, DFRobot, Waveshare	The Arduino Mega is a microcontroller board based on the ATmega2560. It has 54 digital input/output pins (of which 14 can be used as PWM outputs), 16 analog inputs, 4 UARTs (hardware serial ports), a 16 MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with an AC-to-DC adapter or battery to get started. The Mega is compatible with most shields designed for the Arduino Duemilanove or Diecimila. The Mega 2560 R3 also adds SDA and SCL pins next to the AREF. In addition, there are two new pins placed near the RESET pin. One is the IOREF that allow the shields to adapt to the voltage provided by the board. The other is not connected and is reserved for future purposes. The Mega 2560 R3 works with all existing shields but can adapt to new shields that use these additional pins. Arduino is an open-source physical computing platform based on a simple i/o board and a development environment that implements the Processing/Wiring language. Arduino can be used to develop stand-alone interactive objects or can be connected to software on your computer (e.g. Flash, Processing, MaxMSP). The open-source IDE can be downloaded for free (currently for Mac OS X, Windows, and Linux).	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
No Image	MMD-00002-C	Metal Gear Micro Servo	MM - Mechanical Module	TowerPro, DFRobot, Adafruit, SparkFun, Waveshare	MG90S Metal Gear Micro Servo is a compact high-torque micro servo motor designed for robotics, RC cars, robotic arms, pan-tilt systems, drones, and Arduino projects. It uses metal gears for improved durability and better torque compared to SG90 plastic gear servos. Typical operating voltage is 4.8V-6V with around 180° rotation.	Product Type: Metal Gear Micro Servo Model: MG90S Operating Voltage: 4.8V – 6V DC Rotation Angle: 180° Stall Torque: 1.8kg-cm – 2.2kg-cm	Arduino Servo • Metal Gear Servo • High Torque Servo • Robotics Servo • MG90S Servo • Micro Servo Motor • PWM Servo
No Image	MMM-00005-A	Wheels	MM - Mechanical Module	Pololu, DFRobot, Waveshare, SunFounder	N20 34mm wheels are compact rubber wheels specially designed for N20 micro gear motors with a 3mm D-shaped shaft. These wheels are widely used in line follower robots, mini smart cars, obstacle avoidance robots, STEM kits, and DIY robotics projects. Most models use a press-fit D-hole design for secure mounting and better traction.	Product Type: N20 Motor Rubber Wheel Wheel Diameter: 34 mm Wheel Width: 6.5 mm – 7 mm Shaft Type: 3 mm D Shaft	Rubber Wheel • Smart Car Wheel • DIY Robot Wheel • N20 Wheel • 34mm Robot Wheel • N20 Motor Wheel • Mini Robot Wheel
No Image	MMM-00005-B	Rubber wheels	MM - Mechanical Module	DFRobot, Pololu, SparkFun, Waveshare	Rubber wheels for DC motors are commonly used in robotics, smart car projects, Arduino robots, line follower robots, obstacle avoidance robots, and DIY mechanical projects. These wheels usually fit BO motors, TT motors, and geared DC motors, providing better grip and smooth movement.	Product Type: Rubber Wheel for DC Motor Wheel Diameter: 65mm / 70mm Compatible Motors: BO Motor / TT Motor Wheel Width: 25mm – 30mm	Robot Wheel • Rubber Wheel • DC Motor Wheel • Smart Car Wheel • Tyre Wheel • DIY Robot Wheel • Motor Wheel