# **ESP32 DEVELOPMENT BOARD**



#### Introduction: -

This board is assembled with an ESP-WROOM-32 Module and has the standard UNO size and connectors. This ESP32 WiFi Bluetooth UNO D1 R32 Development Board comes with 4MB of flash storage and a Micro USB port. The ESP-WROOM-32(ESP-32S) is a WiFi and Bluetooth module based on the ESP32 chip by ESPRESSIF. The ESP32 chip includes a dual-core processor, 448 KByte ROM, 520 KByte SRAM, 16 KByte SRAM in RTC, 802.11 b/g/n/e/l Wi-Fi, Bluetooth v4.2 BR/EDR & BLE, clocks & Times, various peripheral interfaces, and a security mechanism. Many other platforms, including Arduino, can be used to create software.

This development board contains the entire basic support circuitry for the ESP-WROOM-32, including the USB-UART bridge, reset- and boot-mode buttons, LDO regulator and a micro-USB connector. Every important GPIO is available to the developer. It is an excellent development board for debugging, developing, and prototyping code. This board is user-friendly and ideal for training and development.

### Package Contains:-

ESP32 Development Board CD containing required software, manual and sample programs. Connectors

# Specifications:

- 32 bit microcontroller
- Dual core
- 160MHz to 240MHz frequency
- With Bluetooth & Wi-Fi
- 4MB of flash storage
- Bluetooth v4.2 BR/EDR & BLE

## Interfaces available with the board

- •DHT11
- PIR Sensor
- Ultrasonic Sensor
- OLED Display
- •GSM
- Relay
- Max232
- Stepper Motor, Dc Motor, Servo Motor
- Lora
- NBIOT
- Heart Rate And Pulse Oximeter Sensor
- •Mpu-6050 3-Axis Accelerometer And Gyro Sensor
- MQ135 Air Quality Sensor
- RS485
- ·Led Blinking
- •Button Test

# Arduino Nano DEVELOPMENT BOARD

This is an Arduino Nano Development Board with Arduino Nano. All Pins are Breakout Pins are available at Female bugs Connector, which can be used as the main board for developing applications.

Arduino Nano is a small, complete, and breadboard-friendly board based on the ATmega328. It is one of the smallest and yet most exciting breadboard-friendly boards available on the market today.

# Package Contains:-

Arduino Nano Development Board Connectors

## Specification:

- Operating Voltage-5 V
- Flash Memory-32 KB of which 2 KB used by bootloader
- SRAM-2 KB
- Clock Speed-16 MHz
- Analog IN Pins-8
- EEPROM-1 KB
- Digital I/O Pins-22 (6 of which are PWM)

#### Interfaces available with the board

- LED
- Switches
- DHT11 Temperature Sensor
- OLED Display
- PIR Sensor
- DC Motor
- Servo Motor
- Stepper Motor
- LCD Display
- Ultrasonic Sensor
- Seven Segment Display
- Relay
- Buzzer
- Pot
- RFID Module
- Bluetooth
- Pixel-Ws2812

# Raspberry PI 4 DEVELOPMENT BOARD

The Raspberry Pi 4 Model B is the latest addition to the popular Raspberry Pi range of computers, offers a significant increase in processor speed, rich multimedia performance, memory, and improved connectivity compared to its predecessor Raspberry Pi 3 Model B+.

The Raspberry Pi 4 Model B boasting a 64-Bit quad-core processor running at 1.5GHz, dual-display support at resolutions up to 4K at 60fps, up to 8GB of RAM, dual-band 2.4/5.0 GHz wireless LAN, Bluetooth 5.0/BLE, True Gigabit Ethernet, USB 3.0, and PoE capability (via a separate PoE HAT add-on).

# Package Contains:-

Arduino Nano Development Board CD containing required software, manual and sample programs. Connectors

#### Specifications

- 64 bit quad core cortex A72 processor
- 4GB LPDDDR4 RAM
- 2 micro HDMI ports(supports upto 4Kp60)
- 2 USB 3.0 ports
- 2 USB 2.0 ports
- Gigabit Ethernet port
- 802.11b/g/n/ac wireless
- Bluetooth 5.0
- PoE capable
- 5V/3A USB-C power supply required

#### Interfaces available with the board

- Keyboard
- Mouse
- Monitor
- SD card