



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

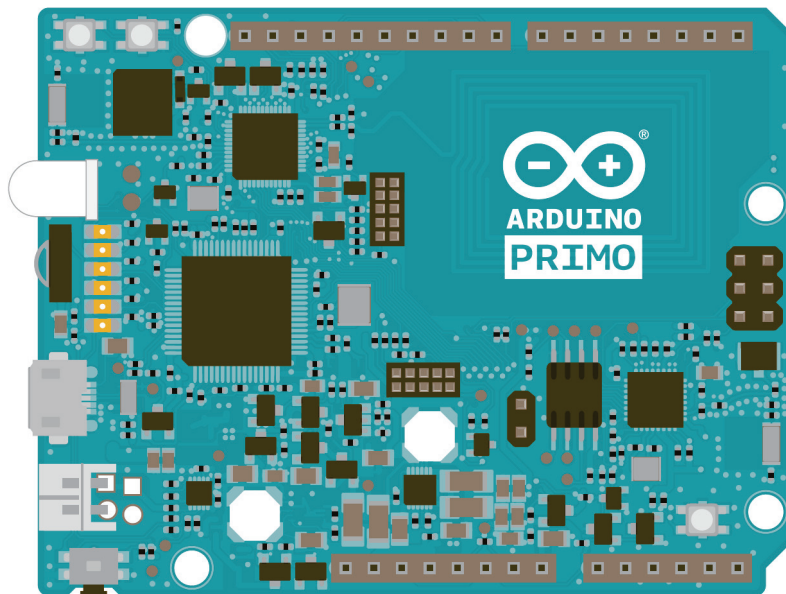


ARDUINO
NEW PRODUCTS





Arduino **PRIMO**



PRIMO is the first Arduino board featuring a Nordic nRF52 processor with WiFi.

The PRIMO combines the processing power from the Nordic nRF52 processor, an Espressif ESP8266 for WiFi, as well as several on-board functions and a battery charger. The nRF52 includes NFC-A tag (Near Field Communication) and Bluetooth Smart . The board includes one RESET and two USER buttons, LEDs , Buzzer and infrared receiver and transmitter .

INTERMEDIATE





Arduino PRIMO

ARDUINO MICROCONTROLLER

Microcontroller	Nordic nRF52 832 ARM® Cortex®-M4 32-bit processor with FPU, 64 MHz
Operating Voltage	3.3V
Flash Memory	512 KB
SRAM	64KB
DC Current per I/O	14 mA
Digital I/O Pins	20, with 12 PWM
Analog Input Pins	6
Interfaces	1x I2C, 1x I2S, 1x SPI, 1x UART
Bluetooth Smart (BLE 4.0)	TX power up to +4dBm-96dBm sensitivity in BLE mode

NFC-A LISTEN MODE OPERATION

13.56 MHz input frequency
Bit rate 106 kbps
Wake-on-field low power field detection (SENSE) mode

WIFI MICROCONTROLLER

Processor	ESP8266
Architecture	Tensilica Xtensa LX106 32bit
Flash Memory	4 MB
Operating Voltage	3.3V
Clock Speed	80 MHz
WiFi	802.11 b/g/n 2.4 GHz , supports WPA/WPA2
Wake up time	< 2ms

SERVICE MICROCONTROLLER

Microcontroller	STM32F103RBT6
Main features:	USB/Uart converter CMSIS-DAP GPIO expander Board power management IrDA

GENERAL

Input Voltage	5 V
Power Consumption	94.4(Max.)~0.936(Min.)mA
Other Features	Battery input and charger
PCB size	53 x 68.5 mm
Weight	20 g
Product Code	A000135





Arduino PRIMO

USB port - Used for powering your Arduino, uploading your sketches to your Arduino, and for communicating with your Arduino sketch.

Battery Connector - Used for powering the board through the Battery.

LEDs - ON, L9, USER2, WIFI, BLE and CHG Leds. Also useful for debugging.

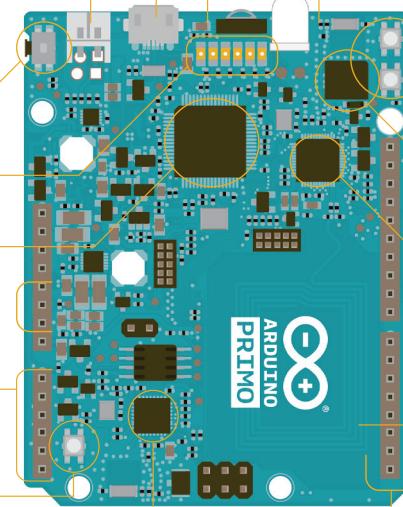
Analog in - Use these pins with analogRead().

ESP B/L button - used to enter the ESP8266 in boot-loader mode and upgrade the chip if needed.

WIFI ESP8266 - This chip allows to communicate via Wi-Fi with sensors or actuators to create your IoT System.

User button - The user button is at user disposal.

STM32 - minor microcontroller. Used to upload the sketch to your Arduino.



Infrared - both reception and transmission modules.

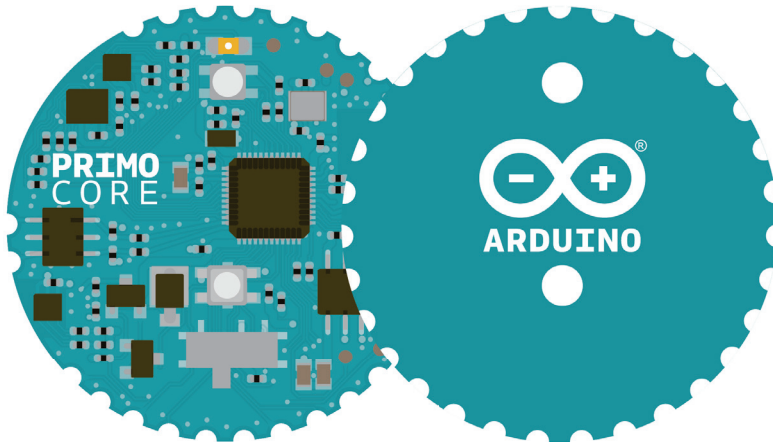
Reset button and user button - Resets all the microcontrollers. The user button is at user disposal.

Buzzer - Piezoelectric signal generator which produces a buzz or beep.

nRF52 - The main board microcontroller, managing the BLE and the NFC.

NFC tag - Data that can be read by an NFC device.

Digital pins - Use these pins for digitalRead(), digitalWrite(), and analogWrite().



Arduino PRIMO CORE

PRIMO CORE is a low-power coin-sized version of the PRIMO, ideal for wearables.

The PRIMO CORE is a compact device, using a Nordic nrf52832 chip with Bluetooth smart (BLE 4.0) and NFC-A tag functions, and also integrated motion and environmental sensors. The low power consumption permits powering the Primo Core with a coin cell battery. The Arduino PRIMO CORE can be mounted on a breakout board to extend its functionalities.

INTERMEDIATE





Arduino PRIMO CORE

GENERAL

Operating Voltage	3V~3.3V
PCB Size	32 x 32mm
Bluetooth Smart (BLE 4.0)	TX power up to +4dBm-96dBm sensitivity in BLE mode
Product Code	A000138

SENSORS&ACTUATORS

Humidity sensor	ST HTS221
Temperature sensor	ST HTS221
3-axis Accelerometer	ST LSM6DS3

NFC-A LISTEN MODE OPERATION

13.56 MHz input frequency
Bit rate 106 kbps
Wake-on-field low power field detection (SENSE) mode

PRIMO NFC ANTENNA (optional)

PCB Size 32 x 32mm





Arduino PRIMO CORE

Accelerometer -

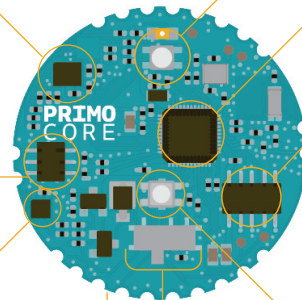
Multifunction 3D digital accelerometer and a 3D digital gyroscope.

NFC Connector -

You can connect the external NFC Antenna through this connector.

Sensor - Temperature and Humidity sensor.

Battery Connector - The connector on the back of your board is used for powering it through a coin Battery.



RGB LED - RGB Light Emitting Diodes (LEDs). Diode that illuminates when electricity passes through it.

nRF52 - The main board microcontroller, managing the BLE and the NFC.

SWD Connector - You can use it to program and debug the board with an Arduino PRIMO or another external programmer.

Reset Button - Resets the nRF52 microcontroller.

Power Switch - Used for powering your Arduino board.

MORE INFORMATION AT
ARDUINO.CC & ARDUINO.ORG

