

## Seeeduino XIAO (Pre-Soldered)

SKU 102010388



Seeeduino XIAO(Pre-Soldered) is the smallest Arduino compatible board in Seeeduino Family. It is an Arduino microcontroller that is embedded with the SAMD21 microchip. The interfaces of Seeeduino XIAO(Pre-Soldered) is rich enough in such a tiny Dev. Board as well.

Seeeduino XIAO

**Seeeduino XIAO (Pre-Soldered)**

Seeeduino XIAO Expansion board

- 1 +

CN Warehouse

[1 Backorder](#)



**Back Order**

- Grove Shield for Seeeduino XIAO - with embedded battery management chip
- Seeeduino XIAO Expansion board
- Acrylic Case for Seeeduino XIAO expansion board
- Grove - LoRa-E5 (STM32WLE5JC), EU868/US915, LoRaWAN supported
- LoRa-E5 mini (STM32WLE5JC) Dev Board, LoRaWAN protocol and worldwide frequency supported

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## PRODUCT DETAILS

### Note

Since the Seeeduino XIAO release, it has been praised by the community, and more and more users have asked us whether there is a pre-soldered version of XIAO, hoping to use it directly in a kit or project without additional work.

This version of XIAO was pre-soldered with a standard 2.54mm (0.1inch) pitch, 6mm length pins, and a sponge is added to the package to protect the pins from damage during transportation.



## Key Features

- Powerful CPU: ARM® Cortex®-M0+ 32bit 48MHz microcontroller(SAMD21G18) with 256KB Flash,32KB SRAM
- Flexible compatibility: Compatible with Arduino IDE
- Easy project operation: Breadboard-friendly
- Small size: As small as a thumb(20x17.5mm) for wearable devices and small projects.
- Multiple development interfaces: 11 digital/analog pins, 10 PWM Pins, 1 DAC output, 1 SWD Bonding pad interface, 1 I2C interface, 1 UART interface, 1 SPI interface.

## Description

Take a look at Seeeduino XIAO(Pre-Soldered). What a small size and cute looking! It is the smallest member of the [Seeeduino family](#). Seeeduino XIAO(Pre-Soldered) still carries the powerful CPU-ARM® Cortex®-M0+(SAM D21G18) which is a low-power Arduino microcontroller. On the other hand, this little board has good performance in processing but needs less power. As a matter of fact, it is designed in a tiny size and can be used for Arduino wearable devices and small projects.

Apart from the strong CPU, Seeeduino XIAO(Pre-Soldered) is excellent in many other functions. It has 14 GPIO PINs, which can be used for 11 analog PINs, 11 digital PINs, 1 I2C interface, 1 UART interface, and 1 SPI interface. Some PINs have various functions, **A1/D1 to A10/D10 Pins have PWM functions and Pin A0/D0 has a function of DAC** which means you can get true analog signals not PWM signals when you define it as an analog pin, that's why 14 GPIO PINs can realize more I/O PINs and interfaces. Moreover, Seeeduino XIAO(Pre-Soldered) supports the USB Type-C interface which can supply power and download code. There are power pads at the back of the XIAO which support battery and make it designed for wearable devices to become realistic. Except for the power LED, we add a user LED on board for your better coding experience. Usually a Dev. Board as small as this size will use the chip's inner crystal oscillator for time fixing, in order to make the clock more accurate, Seeeduino XIAO(Pre-Soldered) layouts an extra 32.768KHz to make the clock more stable.

**Seeeduino XIAO(Pre-Soldered) is perfectly compatible with Arduino IDE**, you can easily develop some small projects with the help of the large and comprehensive Arduino library. So get one and you will soon love it!

#### Attention

All the I/O pins are 3.3V, please do not input more than 3.3V, otherwise, the CPU may be damaged.

This is the [Wiki](#) of the Seeeduino XIAO, you can view the basic settings of running the board.

## Specification

- CPU: ARM Cortex-M0+ CPU(SAM D21G18) running at up to 48MHz
- Storage: 256KB Flash,32KB SRAM
- I/O PINs: 14 GPIO PINs,11 analog PINs, 11 digital PINs, 1 DAC output Pin
- Interface: 1 I2C interface,1 UART interface, 1 SPI interface
- Power supply and downloading interface: USB Type-C interface
- LEDs: 1 user LED, 1 power LED, two LEDs for serial port downloading
- Reset button: two reset button short connect to reset
- Power Pads: For the battery power supply
- Software compatibility: Compatible with Arduino IDE
- Projection cover for protecting the circuit
- Dimensions: 20x17.5x6 mm

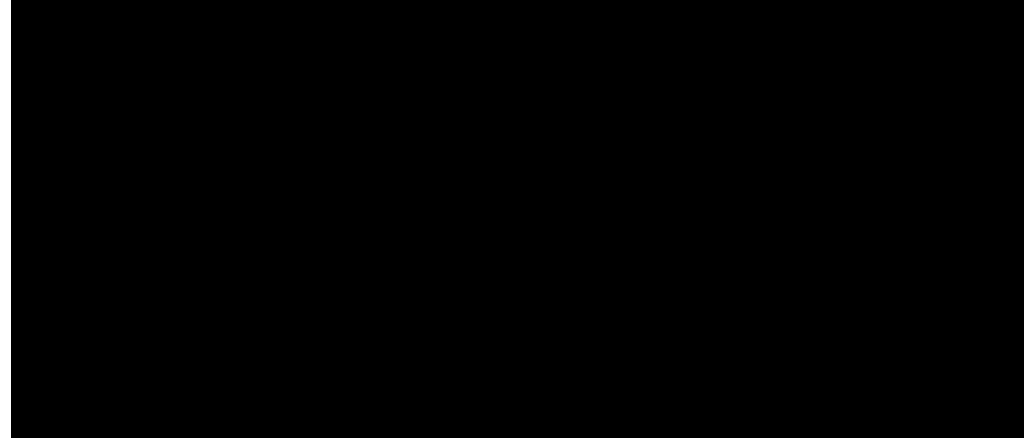
## Typical Application

- Wearable devices
- Rapid prototyping (directly attached to the expanded PCB as a minimal system)
- Perfect for all the projects need mini Arduino
- DIY keyboard
- USB development (USB to multi-channel TTL/USB host mode, etc.)
- A scenario where you need to read multiple mock values The DAC output

## Demo

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## Community Projects

We have collected various projects from the community and will keep updated in the blog [Seeeduino XIAO community projects collection](#). What will be your next project idea made by Seeeduino XIAO?

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USB HID Macropad built with Seeeduino Xiao & CircuitPython via [Andy Warburton](#)



Running usual pyportal\_boing on Seeeduino XIAO + TinyGo via [@sago35tk](#)



## Hardware Pinout



## Part List

- 1 x Seeeduino XIAO(Pre-Soldered)
- 4 x pasters

### Note

We are going to bring new add-ons to extend functionalities based on the community needs, so we are looking forward to any suggestions you guys have! Let us know in the [forum](#), we will carefully listen to and take action!

## ECCN/HTS

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## LEARN AND DOCUMENTS

### Learn

**[Project] Fingerprint Identification with Seeeduino XIAO**

Today, I will introduce a fingerprint unlocking device that can be used for the fingerprint unlocking door. This provides us with a faster and safer way to open and close doors than the traditional way.

**[Project] RC Car (Arduino-Based 3D Resin Printed)**

Version 1 of my design for an RC Car using an Arduino Nano and a Seeeduino XIAO.

**[Project] Indoor Hand-held Co2 Detector (for Covid-19 Purpose)**

How do people know there is enough air exchange in their rooms? There is a simple way to make that determined by Seeeduino XIAO.

**[Others] How to program Seeeduino Xiao with Arduino IDE (Italian)**

Programming Seeeduino Xiao is as simple as drinking a glass of water, once Arduino IDE is configured correctly.

**[Others] A benchmark for Arduino and compatible cards (Italian)**

The video explains in detail how we proceeded to design a benchmark that would provide reliable values both for Arduino and for boards compatible with fast Arm microprocessor onboard.

## SHARED BY USERS

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