# Seeeduino Arch

Seeeduino Arch is a mbed enabled development board which combines the advantages of mbed SDK and Arduino formfactor. With Seeeduino Arch, you can use mbed C/C++ SDK, libraries and optimizing online development tools to rapidly build a prototype. Seeeduino Arch has standard Arduino appearance and Grove connectors. It's convenient to connect existing Shields and Grove products to Seeeduino Arch.
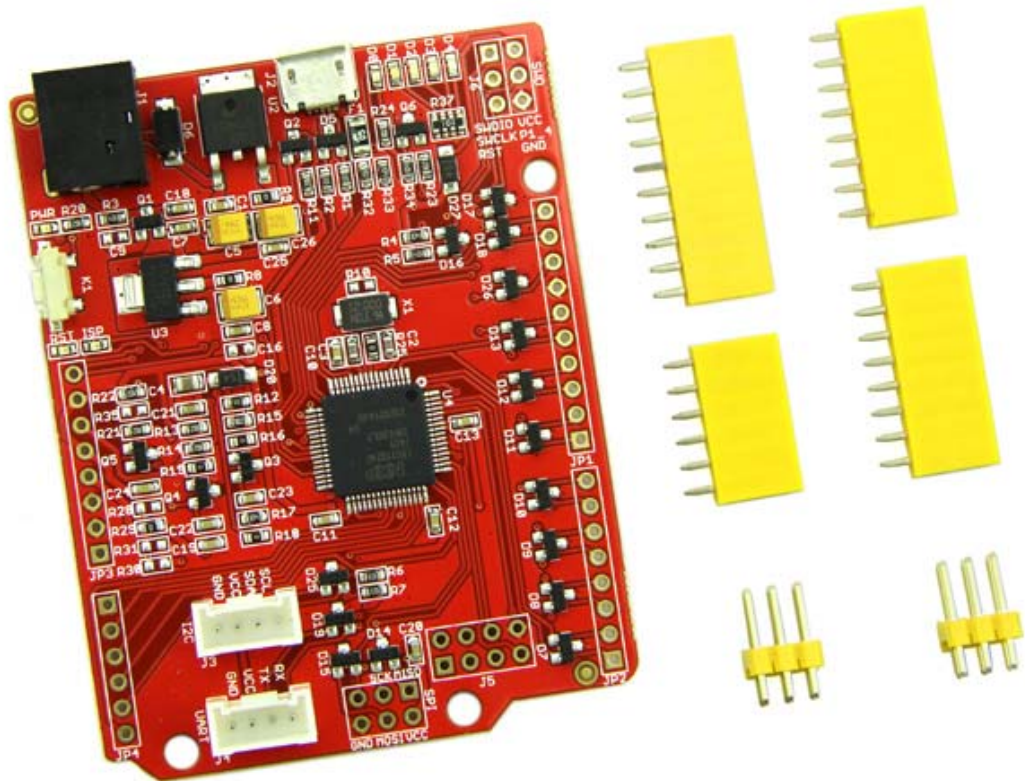

Feature

- mbed enabled

    - online development tools
    - easy to use C/C++ SDK
    - lots of published libraries, projects

    - Stardard Arduino Appearance, two Grove connectors

        - available with 3.3V compatible shields
        - a large number of grove modules

        - Drag-n-drop programming

- NXP LPC11U24 MCU

- Low power ARM Cortex-M0 Core

- 48MHz, 32KB Flash, 8KB RAM, 4KB EEPROM

- USB Device, 2xSPI, UART, I2C

Specification

Item	Typical
Work Voltage	7 ~ 9V
Microcontroller	LPC11U24
Flash Momery	32kB
EEPROM	4kB
RAM	8kB
UART	1
I2C	1
ADC Channels	8
I/O pins	40

Pinout
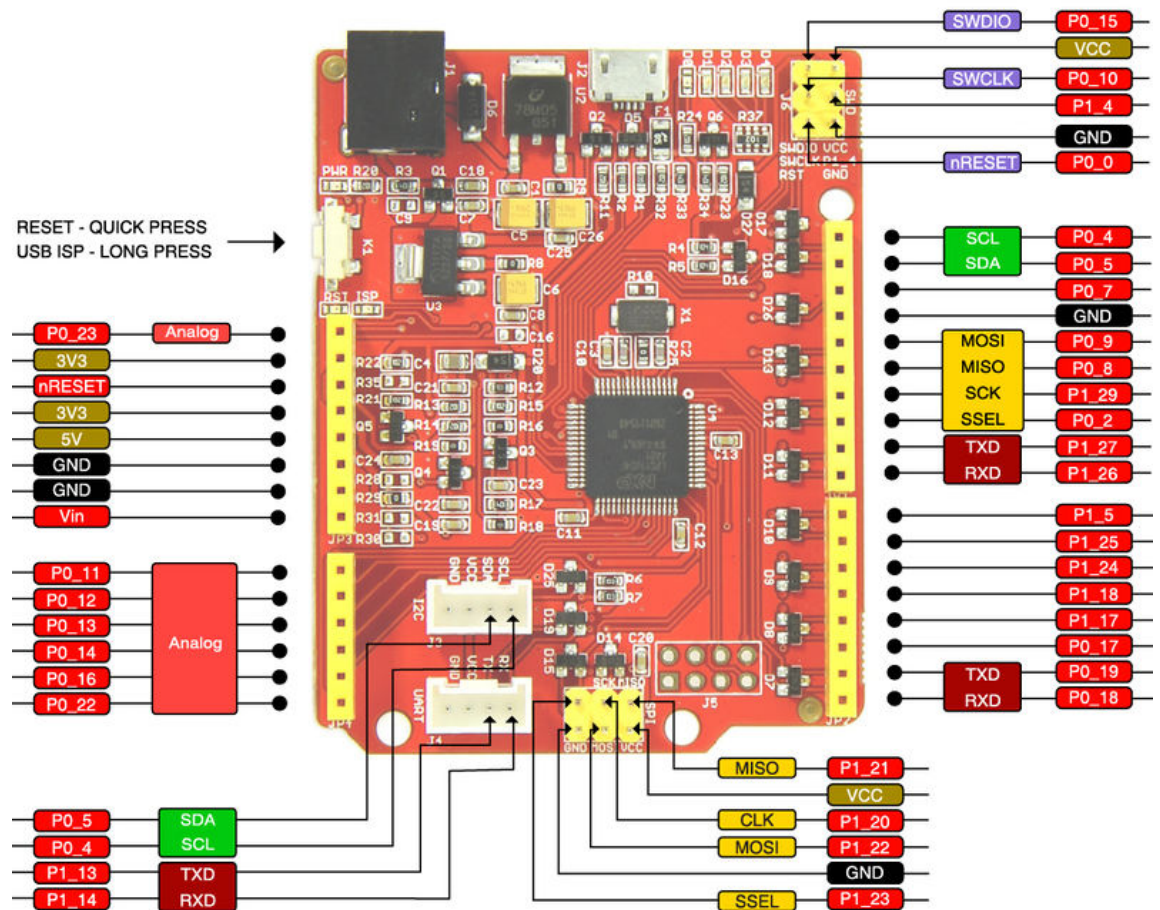
Compare Seeeduino Arch with Arduino

Both Seeedduino and Arduino are platforms used for creating rapid prototyping. However, there are still differences between them. We can get more information about them by comparing from the following form.

Item	Seeeduino Arch	Arduino
Microcontroller	ARM Cortex-M series MCU	Mainly AVR 8-bit MCU, using the new Due Cortex-M3 MCU family.
Hardware specification	Standardized size and pin for easy modular build prototypes	Standardized size and pin for easy modular build prototypes
Development Environment	Online development tool for collaborating and sharing easily, can export project to local for development and debugging. Powerful, yet also simple.	Arduino IDE, easy to use, simple but functional.
Develop and debug	Support library import, export projects, version control, debugging and other functions.	Libraries and application code are separate, suitable for writing simple code, without debugging function.

The Seeeduino Arch is compatibility with Arduino in hardware. Now we share their pins destribution.

Arduino	Seeeduino Arch	Description
D0	P0_18	Digital I/O
D1	P0_19	
D2	P0_17	
D3	P1_17	
D4	P1_18	
D5	P1_24	
D6	P1_25	
D7	P1_5	

D8	P1_26	
D9	P1_27	
D10	P0_2	
D11	P1_29	
D12	P0_8	
D13	P0_9	
SDA	P0_5	I2C
SCL	P0_4	
A0	P0_11	
A1	P0_12	
A2	P0_13	
A3	P0_14	Analog
A4	P0_16	
A5	P0_22	
A6	P0_23	
1-MISO1	P1_21	
2-SCK	P1_20	
3-RESET	P1_23	SPI1
4-GND	/	
5-MOSI	P1_22	
6-VCC	/	
1-SWDIO	P0_15	
2-VCC	/	
3-SWCLK	P0_10	2X3 SWD Interface
4-	P1_4	
5-nRET	P0_0	
6-GND	/	
D+	USB_DP	
D-	USB_DM	
VBUS	P0_3	USB&ISP
CONNECT	P0_6	
ISP	P0_1	
RX	P1_14	UART Grove
TX	P1_13	
AREF	P0_7	/