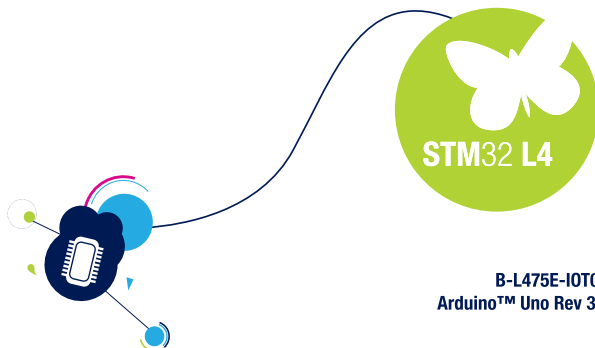


STM32 Discovery kit

IoT node



B-L475E-IOT01A1
Arduino™ Uno Rev 3 Connectors

DISCOVERY BOARD FEATURES

- **STM32L475 MCU features**
 - STM32L475VGT6 MCU with **80 MHz/100 DMIPS** ARM® Cortex®-M4 core **153 ULPBench™**
 - 1 Mbyte of Flash memory
 - 128 Kbytes of SRAM
- Wireless connectivity: Wi-Fi, NFC, BLE, and Sub-GHz (915 MHz) bands
- Sensors: Gyroscope/accelerometer/magnetometer, proximity, pressure, humidity, and microphone
- Connectors: USB OTG, Arduino™ Uno, and Pmod™
- Embedded ST-LINK debugger and programmer
- mbed-enabled

CN2		CN1	
Reserved	1 NC	SCL/D15	10 PB8
3V3	2 IOREF	SDA/D14	9 PB9
NRST	3 RESET	AVDD	8 VDDA
3V3	4 3V3	GND	7 GND
5V	5 5V	SCK/D13	6 PA5
GND	6 GND	MISO/D12	5 PA6
GND	7 GND	PWM/MOSI/D11	4 PA7
VIN	8 VIN	PWM/CS/D10	3 PA2
PC5	1 A0	PWM/D9	2 PA15
PC4	2 A1	D8	1 PB2
PC3	3 A2	D7	8 PA4
PC2	4 A3	PWM/D6	7 PB1
PC1	5 A4	PWM/D5	6 PB4
PC0	6 A5	D4	5 PA3
		PWM/D3	4 PB0
		D2	3 PD14
		TX/D1	2 PA0
		RX/D0	1 PA1
			CN3

■ Arduino™ Uno signal

■ Discovery board signal

By using or installing (as applicable) this evaluation kit you accept all the terms of the EVALUATION PRODUCT LICENCE AGREEMENT available at www.st.com/epl

STM32 Discovery kit IoT node for STM32L475 MCU

GETTING STARTED

- 1/ Ensure that Jumper JP8 is open, Jumpers JP5, JP6 and JP7 are closed, and Jumper JP4 is set to 5V_ST_LINK.
- 2/ Connect a Type-A to Micro-B USB cable from the B-L475E-IOT01A1 IoT Discovery board (connector USB STLINK CN7) to a PC. The LEDs LD6 (STLINK COM) and LD5 (5V power) will light up.
- 3/ You will have to configure the board with the Wi-Fi network and your AWS data the first time you use it.
 1. Follow the steps as described on the “Getting Started with AWS IoT” website to register your device.
 2. Connect a UART terminal to the board using the following settings:
 - UART terminal settings: new line receive = auto; new line transmit = Line Feed
 - Serial port setup: select COM port number, 115200 baud rate, 8 bit data, parity none, 1 stop bit, no flow control
 3. Press the reset button then the USER button within 5 seconds; follow the UART terminal indications.
 4. This data will remain in Flash memory and be reused the next time the board will boot.
- 5/ Board usage: the program will run around 10 minutes. The board sensor values will be regularly published in the AWS IoT cloud. Press the user button (blue) to publish messages to toggle the LED2 via the AWS IoT cloud. Press the black button to reset the board.
- 6/ The demo application software is available at www.st.com/x-cube-aws

SYSTEM REQUIREMENTS

- Windows® OS (XP, 7, 8, 10), Linux or macOS®
- USB Type-A to Micro-B cable

DEVELOPMENT TOOLCHAINS

- Keil® MDK-ARM¹
- IAR™ EWARM¹
- GCC-based IDEs including **free** SW4STM32 from AC6
- ARM® mbed™ online

1. On Windows® only



EMBEDDED SOFTWARE

STM32CubeL4 embedded software solution, featuring drivers, RTOS, file system, USB, TCP/IP, graphics and examples for this board.



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