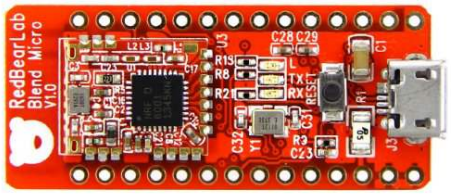

(images/product/Blend Micro_02.jpg)

Blend Micro - an Arduino Development Board with BLE

SKU: 113990059

Description

ARDUINO AT HEART™

Blend Micro is our first integrated developement board, we have "blend"ed Arduino with Bluetooth 4.0 Low Energy (aka BLE or Bluetooth Smart) into a single board. It is targeted for makers to develop low power Internet-Of-Things (IoT) projects quickly and easily.

The micro-controller unit (MCU) is Atmel ATmega32u4 (http://www.atmel.com/devices/atmega32u4.aspx) and the BLE chip is Nordic nRF8001 (http://www.nordicsemi.com/eng/Products/Bluetooth-R-low-energy/nRF8001). Blend Micro runs as BLE peripheral role only, it allows BLE central role devices to establish connection with.

Current supported BLE central devices:
iOS 7

- iPhone 4s
- iPhone 5 (all models)
- iPod touch 5

- iPad 3/4/mini/Air

Android 4.3 or above (4.4 recommended for stability) with Bluetooth 4.0 hardware support

- Nexus 4
- Nexus 7
- (please report any other Android devices supported)

Windows 8.1 with built-in Bluetooth 4.0 or USB dongle
Mac OSX 10.9.2 with built-in Bluetooth 4.0 or USB dongle
Linux with BlueZ 5.1 with built-in Bluetooth 4.0 or USB dongle

Features

- First BLE + Arduino board under Arduino AtHeart (http://arduino.cc/en/ArduinoAtHeart/HomePage) program
- Works with Nordic Bluetooth Smart SDK for Arduino (https://devzone.nordicsemi.com/index.php/arduino)
- Software development using Arduino IDE
- Over-the-Air download of sketch to Blend Micro (available soon)
- Supported by our free Android App (http://redbearlab.com/app/android) and iOS App (http://redbearlab.com/app/ios)

Technical Specification

Microcontroller	Atmel ATmega32u4 (http://www.atmel.com/devices/atmega32u4.aspx)
Wireless Chip	Nordic nRF8001 (http://www.nordicsemi.com/eng/Products/Bluetooth-R-low-energy/nRF8001)
Operating Voltage	3.3V
Input Voltage	5V (USB) 3.3-12V (VIN) Note: Use either one power source at a time.
Clock Speed	8MHz
Connectivity	Bluetooth 4.0 Low Energy micro-USB Serial (TX/RX) I2C SPI
Flash Memory	32KB (of which 4 KB used by bootloader)
SRAM	2.5KB
EEPROM	1KB
Dimensions	43.6 x 18.4 x 4.3mm (83 x 58 x 25mm with packaging)
Weight	4g (19g with packaging)
Power Consumption	2mA (average - using Interrupt mode)
I/O Pins	24

Document

- Add-on for Arduino IDE (https://github.com/RedBearLab/Blend/releases)
- Get Nordic nRF8001 SDK for Arduino (https://github.com/NordicSemiconductor/ble-sdk-arduino)
- Get RBL nRF8001 Library (added some simple APIs) (https://github.com/RedBearLab/nRF8001)
- Download the signed driver here for Windows (includes up to Windows 8 PC) (http://support.atmel.com/bin/customer.exe?=&action=viewKbEntry&id=1624)

Overview


(http://www.seeedstudio.com/depot/Arduino-t-1.html?ref=pinfo)

Designer: RedBearLab (http://redbearlab.com/)
Other Products From This Designer


(http://www.seeedstudio.com/depot/Maker-Pro-t-1672.html?ref=pinfo)

(http://www.seeedstudio.com/depot/RedBearLab-m-52.html?ref=pinfo)
Weight: 19 g

Document

- Add-on for Arduino IDE
- Get Nordic nRF8001 SDK for Arduino
- Get RBL nRF8001 Library (added some simple APIs)
- Download the signed driver here for Windows (includes up to Windows 8 PC)