Seeed esp32c6 PlatformIO Support XIAO Instructions

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Product Information

Specifications:

- Supports XIAO development boards
- Compatible with Arduino framework
- Supports various XIAO models like esp32c6, rp2040, and nrf52840

Product Usage Instructions

XIAO esp32c6:

1. Create a new project in PlatformIO
2. Replace the contents of platformio.ini with the provided configuration
3. Build and compile the project

XIAO rp2040:

1. Update platformio.ini with the specified content for seeed_xiao_rp2040
2. Complete the first build and compilation
3. Create a seeed_xiao_rp2040 project using PlatformIO

XIAO nrf52840:

1. Create a new project in PlatformIO
2. Modify platformio.ini with the provided configuration
3. Build and compile the project
4. Create the seeed_xiao_nrf52840 project using PlatformIO

How PlatformIO support XIAO

1. **xiao_esp32c6**
   A PR has been submitted and is waiting to be merged. You can refer to the following link for
   - **Usage Instructions:** **Add board support for Seeed XIAO ESP32C6 by LynnL4 · Pull Request #1380 · platformio/platform-espressif32 · GitHub**
   - **Specific Steps:** After creating any project, replace the contents of the platformio.ini file in the project folder with the following:
     [env:seeed_xiao_esp32c6]
   - **Platform** = **https://github.com/mnowak32/platform-espressif32.git#boards/seeed_xiao_esp32c6**
   - **platform_package**s = framework-arduinoespressif32 @ https://github.com/espressif/arduino-esp32.git#3.0.2 framework-arduinoespressif32-libs @ **https://github.com/espressif/arduinoesp32/releases/download/3.0.2/esp32arduinolibs3.0.2.zip**
   - framework = arduino
   - board = seeed_xiao_esp32c6
2. **xiao_rp2040**
   PlatformIO's main branch does not support other development boards. A community version has been submitted, and here's how to use it:
   - **Link** GitHub – maxgerhardt/platform-raspberry pi: Raspberry Pi: development platform for PlatformIO
   - **Usage Instructions:**
     In any new project, change the platformio.ini file to the following content:[env:seeed_xiao_rp2040]
   - platform = GitHub – maxgerhardt/platform-raspberry pi: Raspberry Pi: development platform for PlatformIO
   - board = seeed_xiao_rp2040
   - framework = Arduino
   - After completing the first build and compilation, you can create a seeed_xiao_rp2040 project using PlatformIO.
3. **xiao_nrf52840**
   Mainline Support: GitHub – maxgerhardt/platform-nordicnrf52: Nordic nRF52: development platform for PlatformIO

Usage Instructions

After creating a new project, replace the content of the platformio.ini file in your project folder with the following:

- [env] platform = **https://github.com/maxgerhardt/platform-nordicnrf52framework=Arduino**
- [env:xiaoblesense_arduinocore_mbed] board = xiaoblesense
- [env:xiaoble_arduinocore_mbed] board = xiaoble

Once the initial build and compilation are complete, you can use PlatformIO to create the seeed_xiao_nrf52840 project.

Community Method
Reference Article https://alwint3r.medium.com/working-with-seeed-xiao-ble-sense-and-platformio-ide-5c4da3ab42a3

Steps

1. First, create an Arduino Nano33 BLE project in PlatformIO. After creation, navigate to the nordicnrf52/boards directory (typically found at C:\Users\“username”\.platformio\platforms\nordicnrf52) and create a file named xiaoblesense.json (you can refer to the content from the linked article).
2. Download the Seeed Studio Arduino embed core branch for Arduino IDE from the following link: Seeed_XIAO_BLE_nRF52840_Sense261.tar.bz2.
3. Extract the downloaded file into the framework-arduino-mbed folder (usually located at C:\Users\“username”\.platformio\packages\framework-arduino-mbed).
4. In the nordicnrf52 directory created in step 1, locate the platform.py file. Find the following lines:
   if board in (“nano33ble”, “nicla_sense_me”):
   - self.packages[“toolchain-gccarmnoneeabi”][“version”] = “~1.80201.0”
   - self.frameworks[“Arduino”][“package”] = “framework-arduino-embed”
   - self.frameworks[“Arduino”][“script”] = “builder/frameworks/arduino/mbed-core/arduino-core-mbed.py”
   - **Modify it to:** if the board in (“nano33ble”, “nicla_sense_me”, “xiaoblesense”): self.packages[“tool-adafruit-nrfutil”][“optional”] = False
5. Compile the project (note that you may encounter issues related to long paths preventing header files from being found; if this occurs, search for the missing header files and copy them into the indicated folder).

FAQ

Q: How do I resolve issues related to long paths preventing header files from being found during compilation?
A: If you encounter this issue, search for the missing header files and copy them into the indicated folder as specified in the error message.

Q: Can I use PlatformIO with other XIAO development boards not mentioned in the manual?
A: At the moment, PlatformIO’s main branch does not support other XIAO development boards. However, community versions may be available for specific boards. Please refer to relevant community resources for more information.

Documents / Resources

	Seeed esp32c6 PlatformIO Support XIAO [pdf] Instructions esp32c6, rp2040, nrf52840, esp32c6 PlatformIO Support XIAO, esp32c6, PlatformIO Support XIAO, Support XIAO

References

- Medium
- GitHub - maxgerhardt/platform-nordicnrf52: Nordic nRF52: development platform for PlatformIO
- GitHub - maxgerhardt/platform-nordicnrf52: Nordic nRF52: development platform for PlatformIO
- GitHub - maxgerhardt/platform-raspberrypi: Raspberry Pi: development platform for PlatformIO
- GitHub - mnowak32/platform-espressif32: Espressif 32: development platform for PlatformIO
- Add board support for Seeed XIAO ESP32C6 by LynnL4 · Pull Request #1380 · platformio/platform-espressif32 · GitHub
- User Manual