

# LLM Module Arduino Quick Start

## Overview

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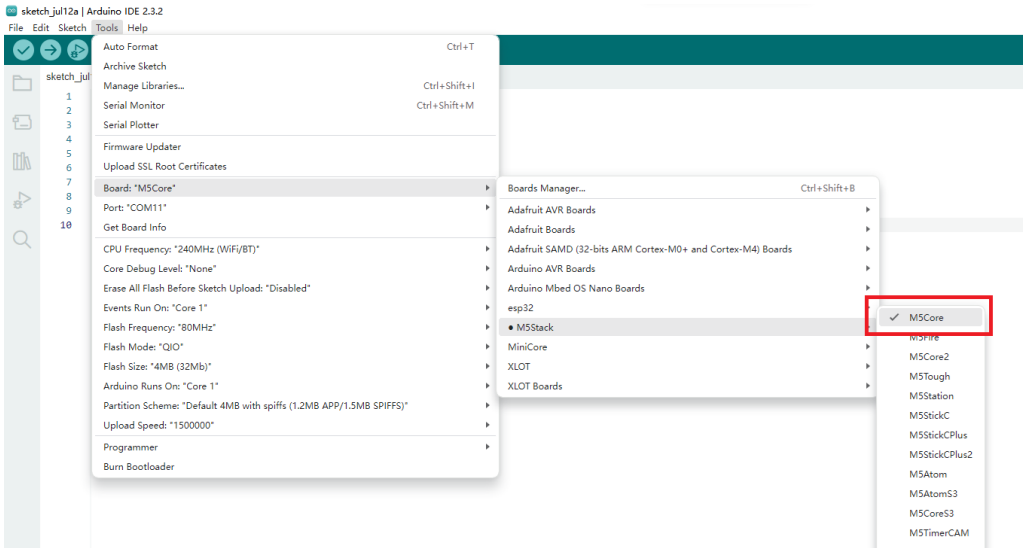
The **LLM Module** can be used with various M5 controllers. This tutorial demonstrates how to control the LLM Module using the **M5Core** series in the **Arduino IDE** with the LLM Module driver library.



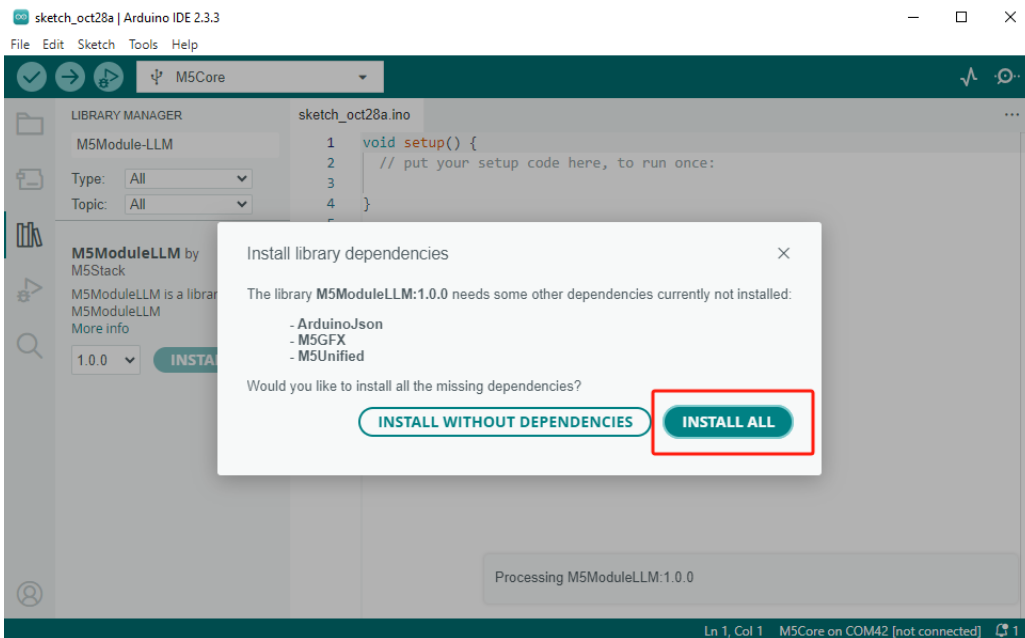
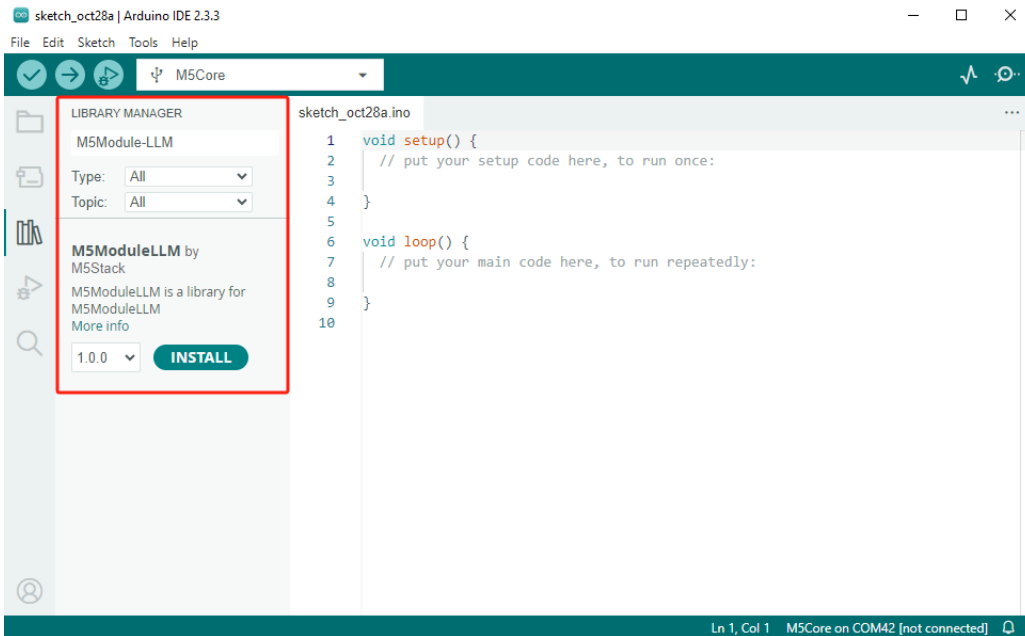
## Environment Setup

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- 1.Arduino IDE Installation: Refer to the [Arduino IDE Installation Guide](#) to complete the IDE installation.
- 2.Board Manager Installation: Refer to the [Basic Environment Setup Guide](#) to complete the M5Stack board manager installation and select the **M5Core** development board.

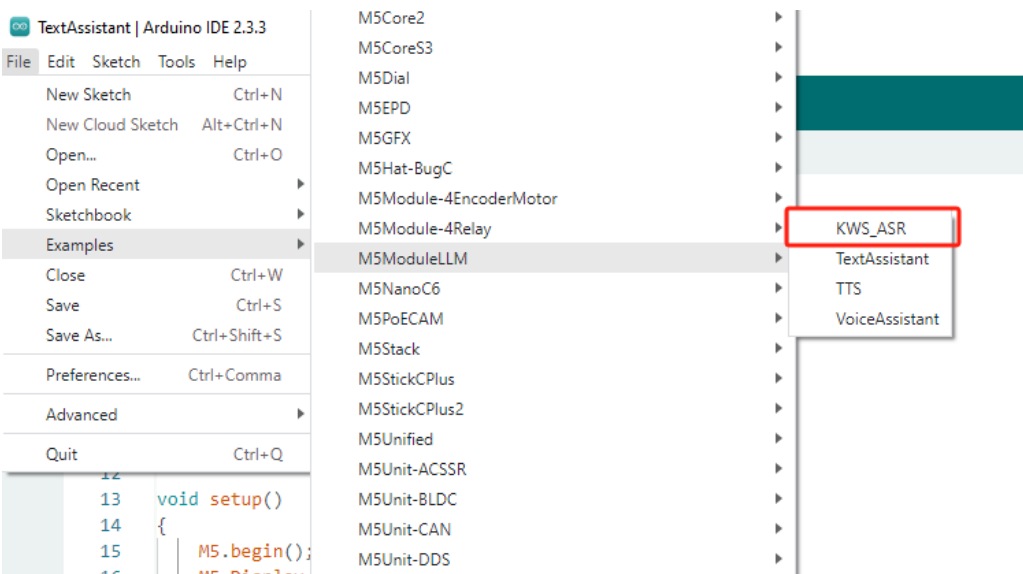
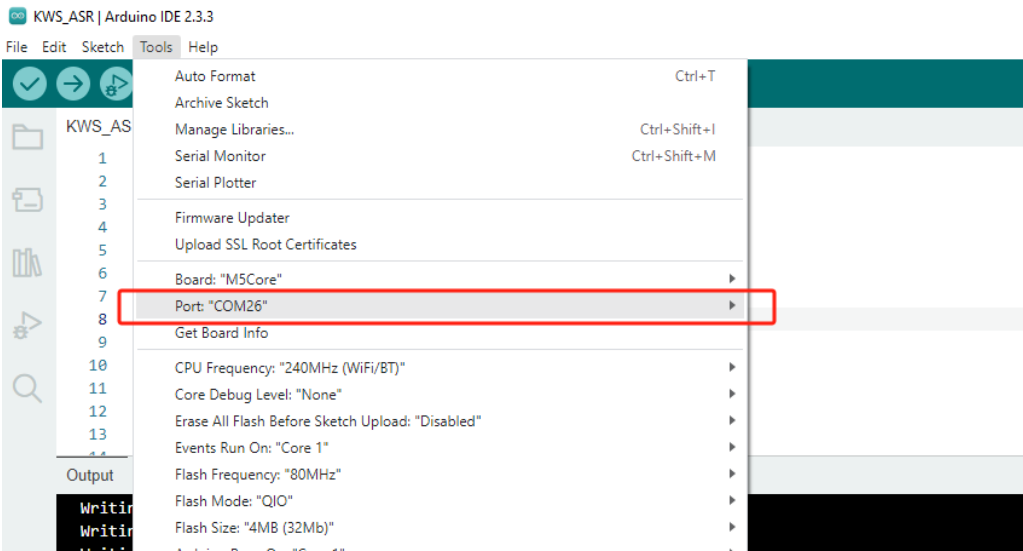


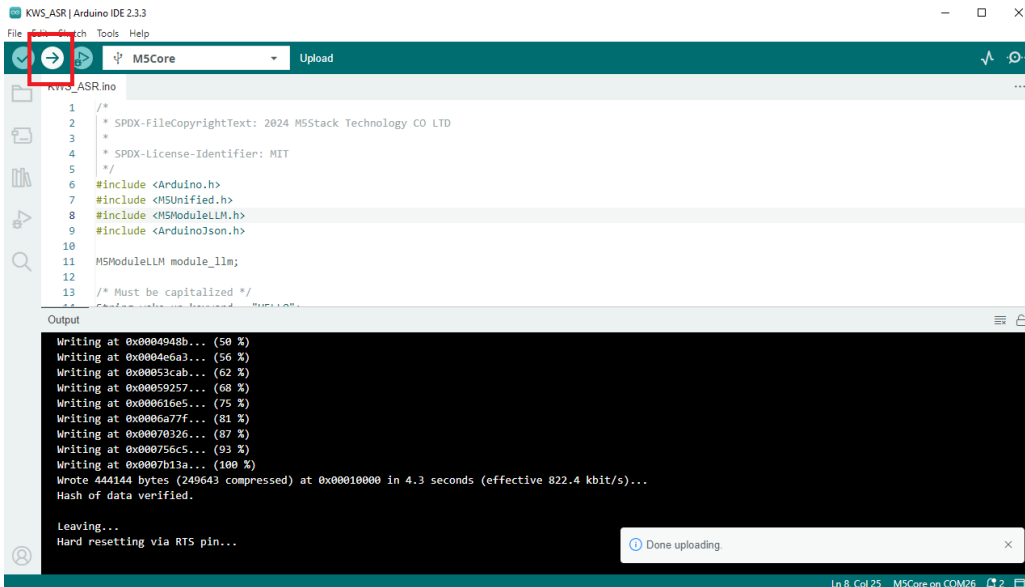
- 3. Library Installation: Refer to the [Library Management Guide](#) to install the **LLM Module** driver library. (Follow prompts to install the dependency library **M5Unified** )



## Program Compilation & Upload

Open the example program "kws\_asr" in the driver library, click the upload button, and the program will automatically compile and upload. The wake-up word used in the example program is "HELLO". After waiting for the device to be initialized, it will be woken up using the keyword.





o Examples:

- o **kws\_asr** : Uses KWS to wake up and triggers ASR for speech-to-text conversion. (KWS+ASR)
- o **text\_assistant** : Inputs text into the LLM model, performs inference, and outputs the result in text form. (LLM)
- o **tts** : Uses the TTS unit to convert text to speech for playback. (TTS)
- o **voice\_assistant** : Uses KWS to wake up, triggers ASR for speech-to-text conversion, inputs the converted text into the LLM for inference, and outputs the inference result through TTS as speech. (KWS+ASR+LLM+TTS)

## Related Links

- [LLM Module Arduino Lib](#)
- [LLM Module Arduino Lib API](#)