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CURSOR for GEVINI

Document v4

Cursor is a modern and intuitive editor, highly integrated with AI agents, ideal for those who want to write, organize, and compile code efficiently. Thanks to its clean interface and features supporting programming languages, it is particularly suitable for developers working on embedded platforms like Arduino.

What Cursor Can Do for Arduino Programming

Cursor, integrated with the "Arduino Community Edition" (ACE) module, offers tools for:

1. **AI-Powered Code Assistance:** Create code from scratch, advanced auto-completion, error detection, and assistance for any stage of programming.
2. **Code Writing and Editing:** Supports C++ syntax with code highlighting, suggestions, and auto-completion, making it easier to write complex microcontroller programs.
3. **Compilation and Uploading:** With ACE, Cursor allows you to compile Arduino sketches directly within the editor and upload them to the connected board.
4. **Debugging and Serial Monitoring:** You can view serial messages from the Arduino board, useful for monitoring program behavior during execution.

GETTING STARTED WITH CURSOR AND ARDUINO COMMUNITY EDITION

1. 1. Install [Cursor](#) and ACE

- First, install the Cursor editor on your computer. Then, add the "Arduino Community Edition" module:
- Open Cursor.
- Access the module or extension management menu (usually called "Extensions" or "Plugins").
- Search for "Arduino Community Edition" and install it. This module provides access to Arduino libraries and compilation options.

2. **Configuring and Connecting the Arduino Board**

After installing ACE, connect your Arduino board to the computer via USB, then select the board type and serial port.

3. **First Program with Cursor**

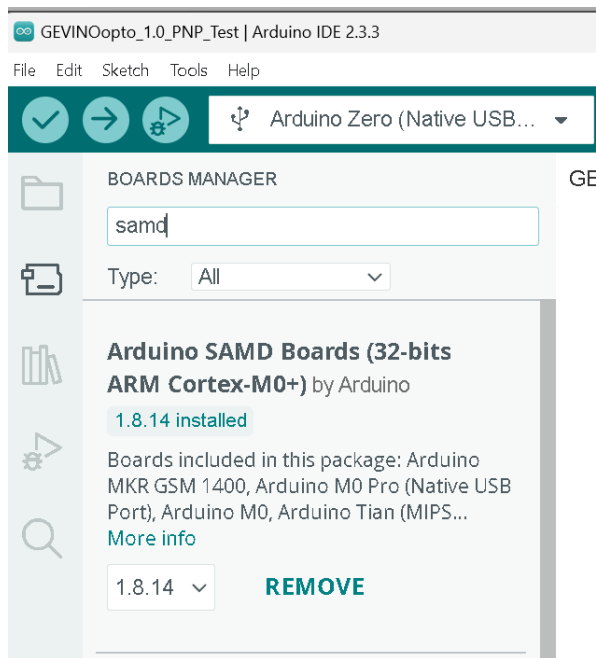
Open a folder with the .cursorrules file, write the Arduino C++ code, and when ready, use ACE's compilation and upload options to send the program to the board.

Cursor with ACE makes Arduino programming much simpler and more integrated compared to traditional environments, providing a powerful and complete setup for developers.

The Arduino IDE and SAMD compiler must be installed. You can find it here:

<https://www.arduino.cc/en/software>

For questions, refer to the *GEVINO Common* document.



STARTING STEPS

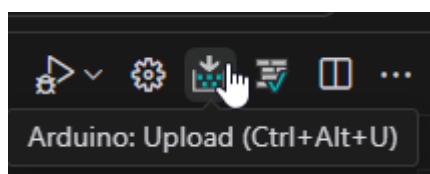
Example shown below <https://youtu.be/YyAUslNQ15g>

1. Open the folder containing .cursorrules (File – Open Folder).
2. Press Ctrl+Shift+I to open the composer.
3. Enter in the chat one of the following commands:
 - **Example 1:** "Each closed input triggers an output for 10 seconds."
 - **Example 2:** "Create an HTML page on Ethernet, send the IP to the console, display input status with colored dots, and add buttons to control outputs."
 - **Example 3 (youtube video):** "Gate control via button and HTML page with password. Adjustable open/close timing. Reopen gate on obstacle detection. Send IP to the console."
4. Click "accept" and close the window with the X button.
5. Open the .ino file and press Ctrl+Alt+I to generate the IntelliSense configuration c_cpp_properties.json.
6. At the bottom, under <Select USB port>, select the port where GEVINO is connected.

A screenshot of the Arduino IDE status bar. It shows the current file 'cancello.ino' and the selected USB port 'COM4'. There are also icons for the Arduino IDE, a USB port, and a bell icon.

If commands are missing, check the Arduino CLI configuration. Details are available on the *Arduino Community Edition* module homepage.

7. Always save before compiling (Ctrl+S).
8. Upload the program to GEVINO using the Upload button at the top.



9. In the right chat, you can request modifications or additions, accept changes each time, save, and reload the program.

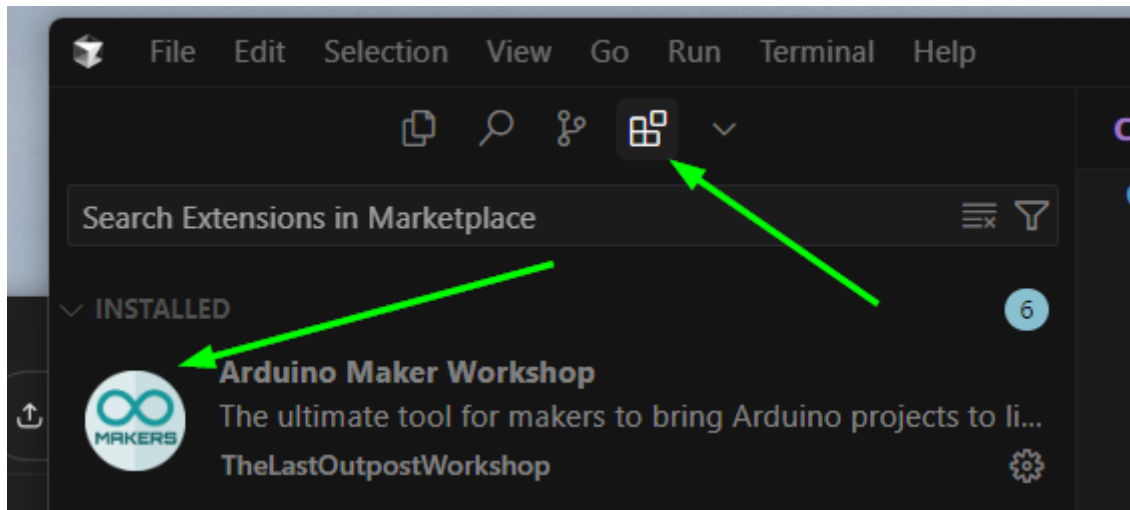
Updates

ACE is OK but does not work with multiple files in the sketch folder.

This works just as well

It already includes the Arduino CLI and no longer needs to be installed separately.

<https://marketplace.visualstudio.com/items?itemName=TheLastOutpostWorkshop.arduino-maker-workshop>



INTEGRATION OF MISSING PARTS

If there is demand, we will continue with the integration of other boards and resources.

Give us feedback and/or make requests.