

Use of HeatMap Software

November 2025

1 Installation of the Programs

1.1 Installation of the Main Program

In this project I primarily use the Arduino IDE software. The code can be compiled with other tools as well, but I chose Arduino IDE due to its large community support.

1. Download and install the program from the official website: <https://www.arduino.cc/en/software>. Choose the version appropriate for your operating system.
2. Install the required libraries and board definitions:
 - To enable support for the ESP32 DevKit board, open **File** > **Prefere**nces and, in the *Additional Board Manager URLs* field, add the following link:
https://dl.espressif.com/dl/package_esp32_index.json
 - Alternatively, you can install the ESP32 platform directly from the Library Manager.

After this, go to **Tools** → **Board**, search for **ESP32 DevKit**, and select it. Once the board is selected and connected to the computer, uploading the code will run automatically.

1.2 Required Libraries

Open the Library Manager (left-side panel icon in Arduino IDE) and install the libraries needed by the project.

- None are required for this version of the code.

2 Running the Program

After completing the setup, the only file that should be modified is **Config.h**. This file contains all the parameters used by the program, such as passwords, IP addresses, URLs, reading intervals, and other configuration values.