

# Use of HeatMap Software

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## 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** → **Preferences** and, in the *Additional Board Manager URLs* field, add the following link:  
[https://dl.espressif.com/dl/package\\_esp32\\_index.json](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.