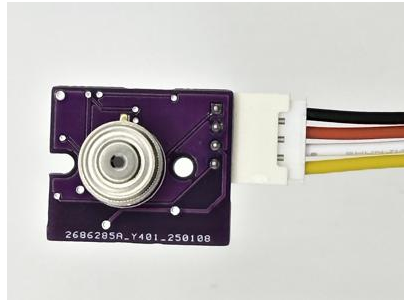


## Getting Started

The Heimann Sensor I<sup>2</sup>C module is supplied with a cable that can be connected to an ESP32 DevKit, enabling the DevKit to act as the master device for streaming data from the module. Please note that the ESP32 DevKit is not included and must be purchased separately.

### 1. Connecting the I<sup>2</sup>C Module



Plug the 4-pin cable into the module's socket and connect the jumper wires to the ESP32 pins as explained below.

Make sure that the ESP32 is not powered while connecting the jumper wires to it.



Pin/Color	Description	ESP32 Pin
1 - Black	SDA	21
2 - Red	VSS	GND
3 - White	VDD	5 V
4 - Yellow	SCL	22

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**Important note: Please make sure that the +5 V is connected prior to powering the Application Shield via USB. Otherwise unexpected behavior may occur.**

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## 2. Software Installation and Setup

Download the demo master software from the link below and flash it onto the ESP32. Make sure to select the correct sensor type (8x8, 16x16, or 32x32).

[https://github.com/HeimannSensor/ESP32\\_DemoMaster\\_ULC](https://github.com/HeimannSensor/ESP32_DemoMaster_ULC)

For instructions on how to setup the correct Arduino I<sup>2</sup>C library as well as which IDE version to use, refer to the *User Manual Application Shield ESP32* at

[https://github.com/HeimannSensor/ESP32\\_ApplicationShield/blob/main/ApplicationShieldESP23\\_user\\_manual.pdf](https://github.com/HeimannSensor/ESP32_ApplicationShield/blob/main/ApplicationShieldESP23_user_manual.pdf).

The ArraySoft v2 GUI is suited to display the sampled temperature frames from the I<sup>2</sup>C module via the Application Shield ESP32. The software and the accompanying manual can be downloaded from our homepage <https://www.heimansensor.com/development>.

The password is

AwU#N-y7&2E-hD\$5!-1MBgA-E0%=9

To establish a direct access to the Application Shield ESP32's access point, click on the *Search UDP* button on the GUI's starting window. If a connection to that access point is enabled the Application Shield can be bound and used.

## 3. Handling the I<sup>2</sup>C module

The easiest way to handle the I<sup>2</sup>C module is via the serial monitor of the Arduino IDE. By sending the character *m* via this monitor a menu is printed displaying all input options available.