Communication between Https Scratch 3 and Http Server Home IO

1. Introduction

Home IO includes an integrated web server. Installed on your computer at the same time as Home IO. The server communicates with the http protocol. However, in order to secure websites, the https protocol has arrived with the notion of encryption and certificates. The management of certificates on all machines with Home IO is not possible, so we cannot switch to the https protocol. Local requests are not a problem. However when you want to request from an IP address other than localhost (even if the IP address requested is your computer), http requests will be blocked as they are considered as not secure. So you have to manually indicate in the web browser that you trust the Home IO server on your computer.

Summary

2. Procedures

Depending on the browser and the hardware used, the procedure is different. However, the goal is the same: to allow the https site to send http requests to the Home IO server.
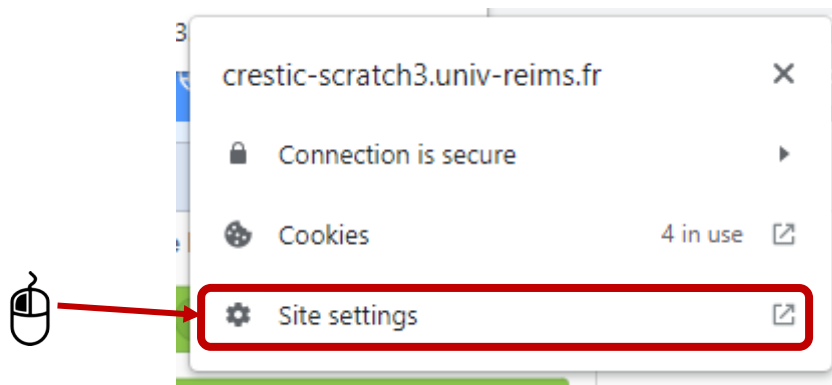
Important note: your hardware must be on the same network as your Home IO server.
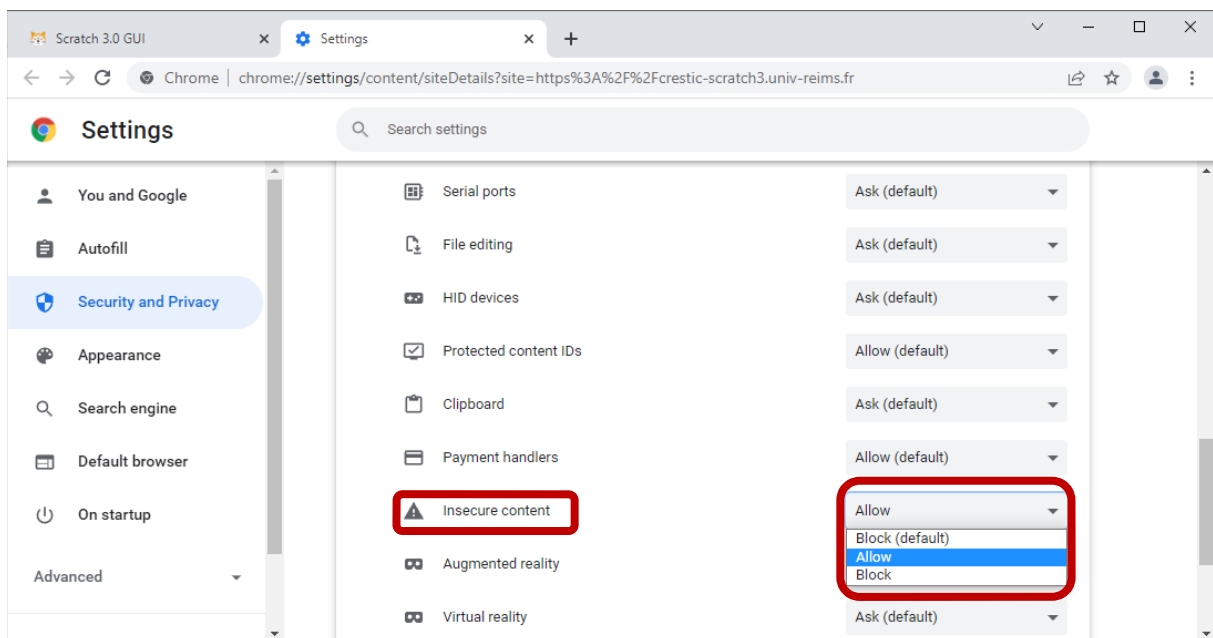
➢ Chrome on computer

1. Go to the Scratch3 site for Home IO of URCA: https://crestic-scratch3.univ-reims.fr/
2. Click on the padlock
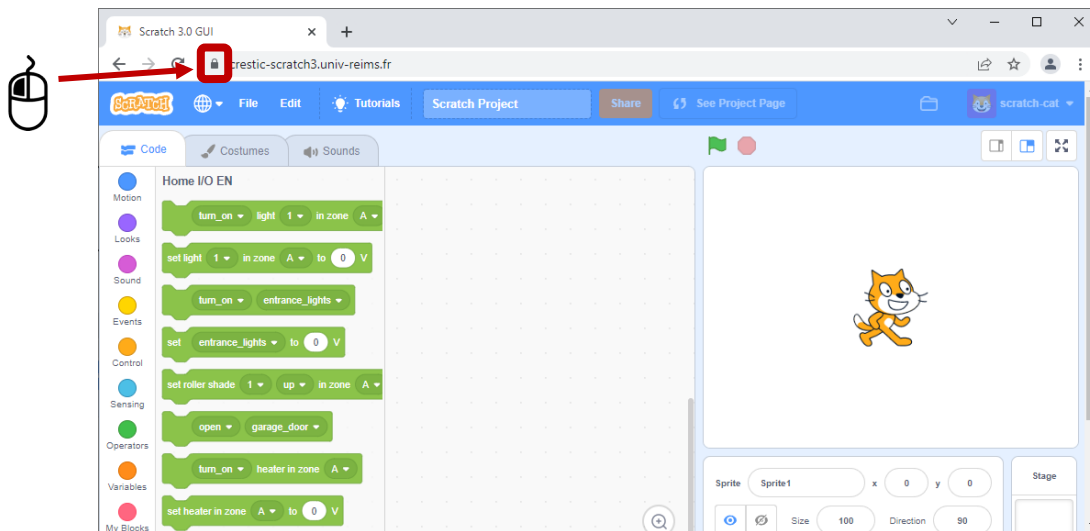
3. Click on Site settings

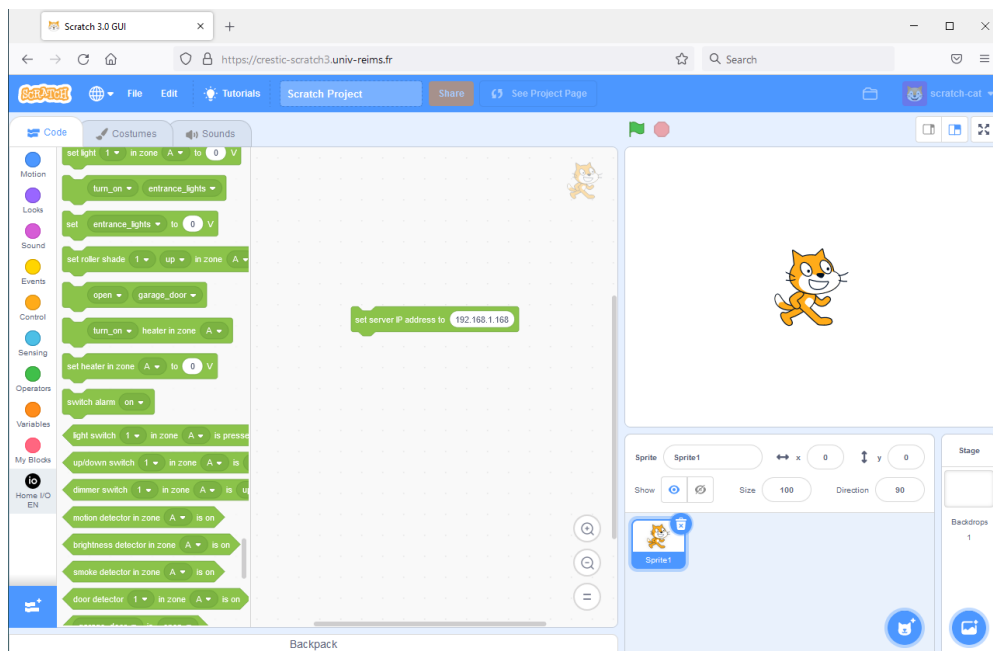4. Allow the Insecure content (just for this website)

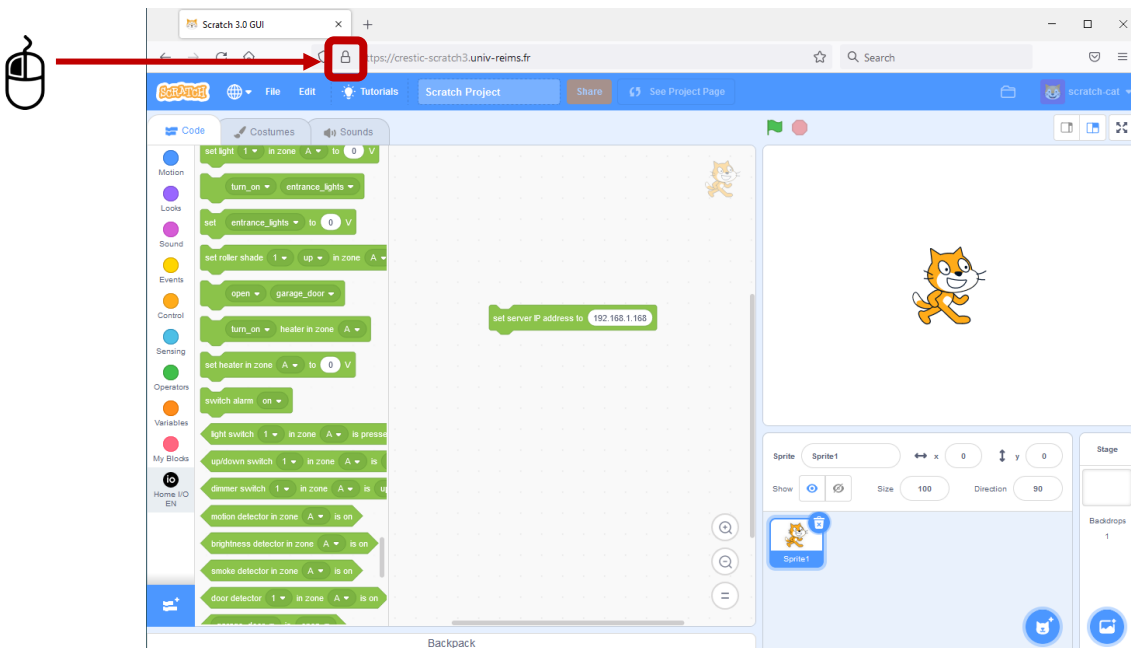5. Close the tab, refresh the Scratch 3 page, and import the Home IO library
6. You are ready to use the Home IO server from your hardware
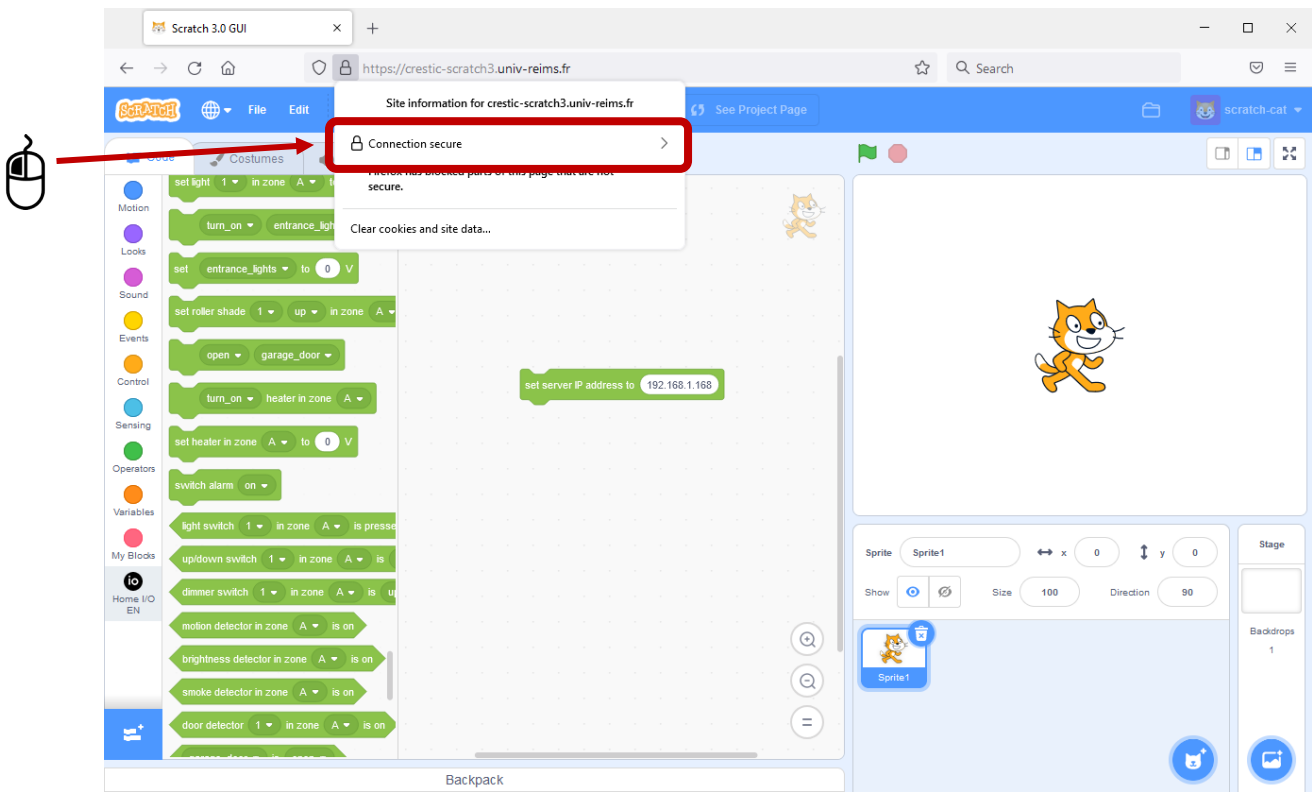
➢ Firefox on computer

1. Go to the Scratch3 site for Home IO of URCA: https://crestic-scratch3.univ-reims.fr/
2. Import the Home IO library
3. Define the block « set serveur IP address to » with your IP address
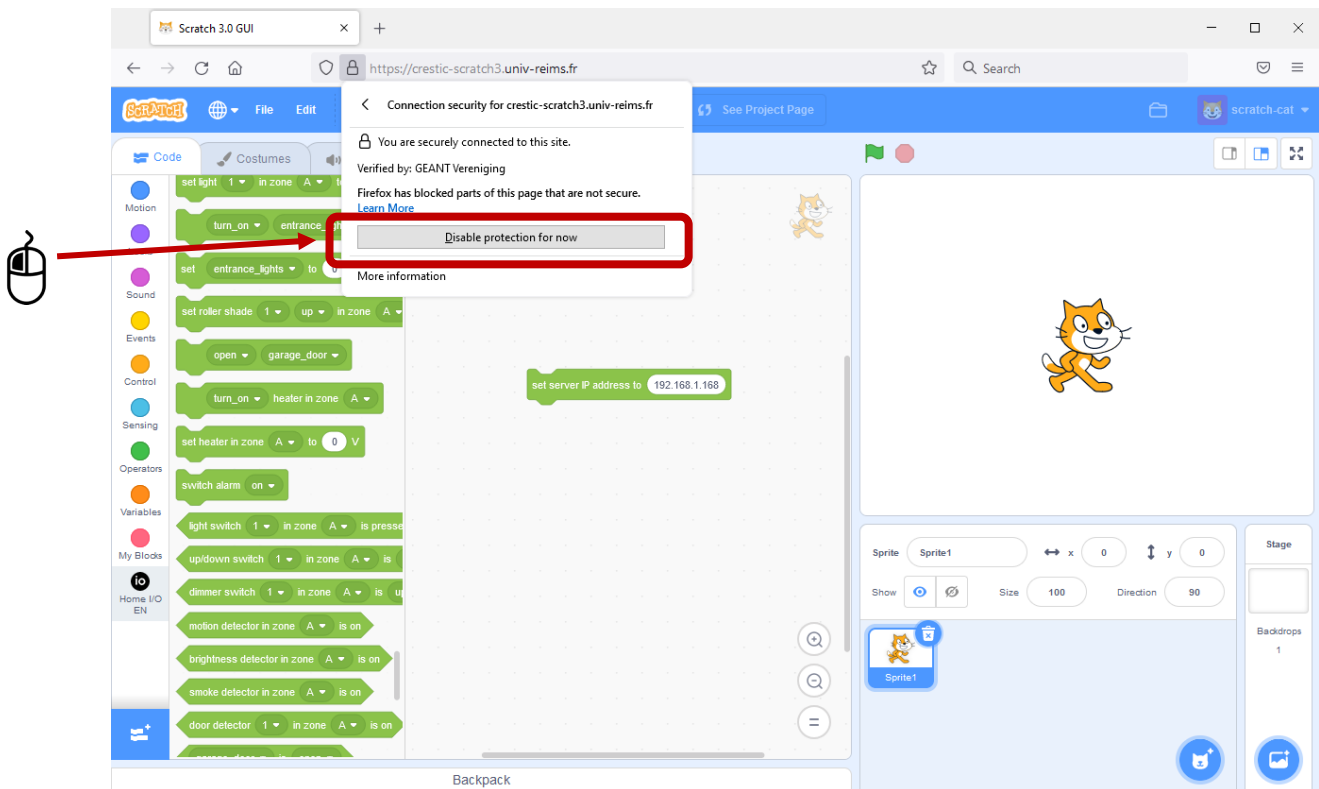4. Click on the block
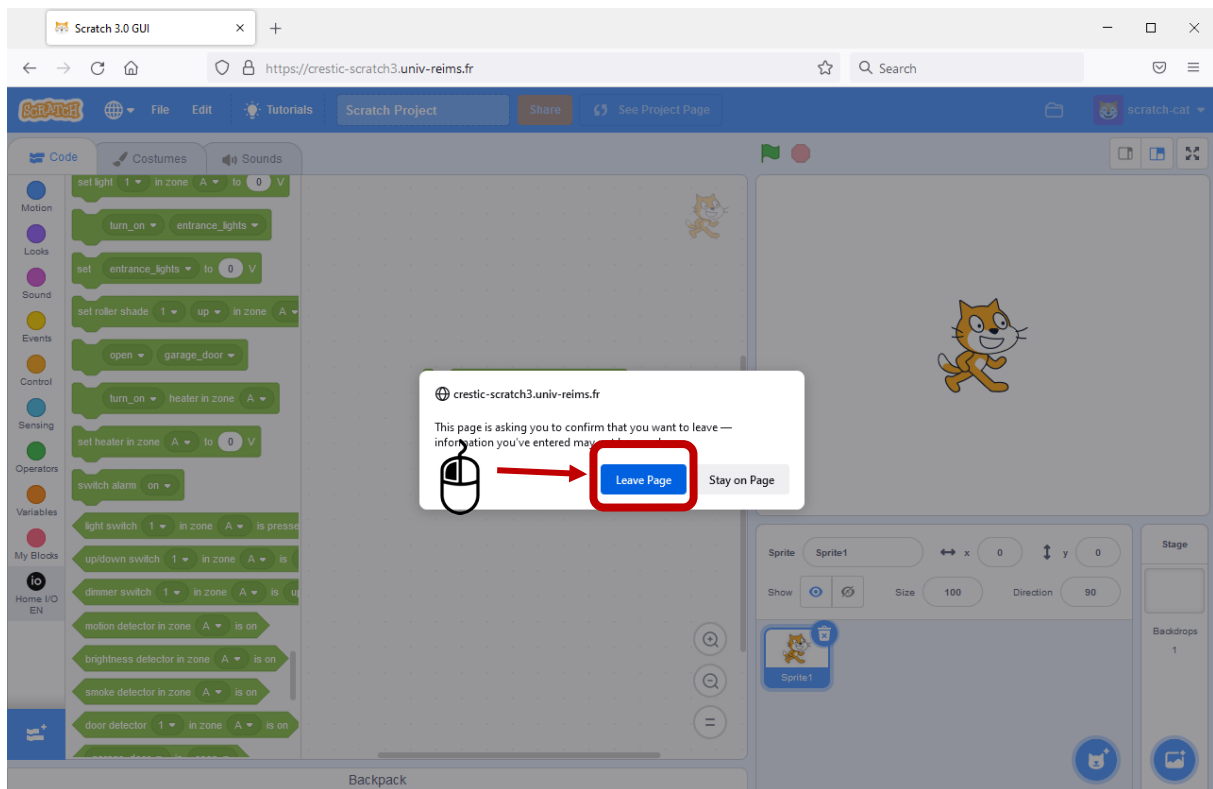

5. Click on the padlock

6. Click on Connection secure
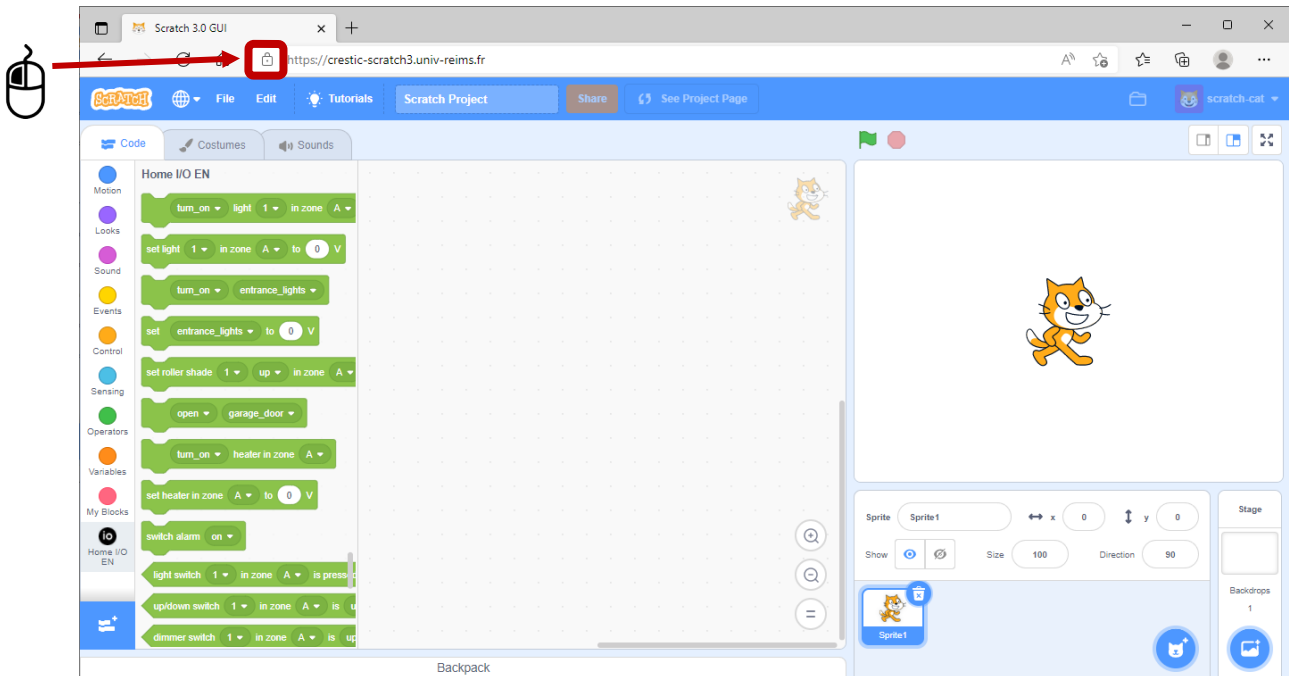

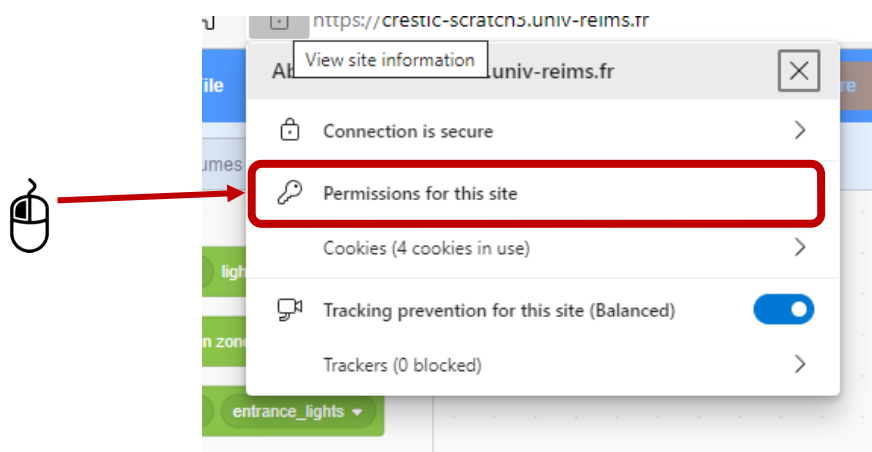7. Click on Disable protection for now

8. Import the Home IO library again
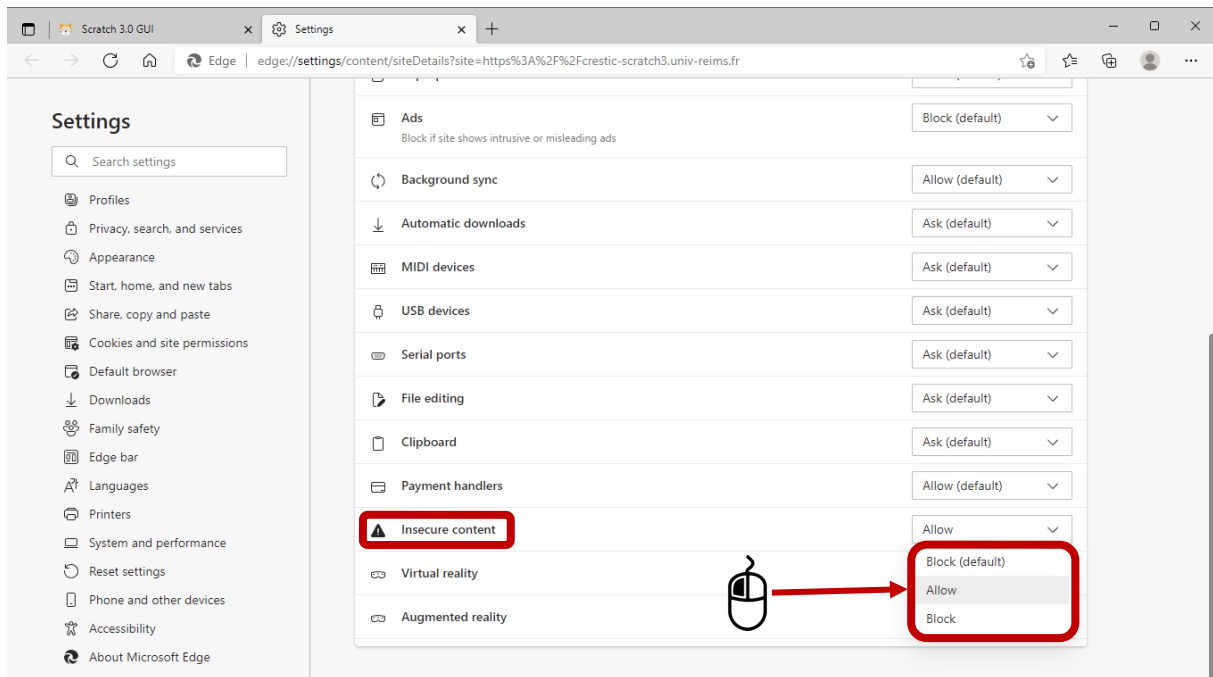9. You are ready to use the Home IO server from your hardware

➢ Edge on computer

1. Go to the Scratch3 site for Home IO of URCA: https://crestic-scratch3.univ-reims.fr/
2. Click on the padlock

1. Click on Permissions for this site

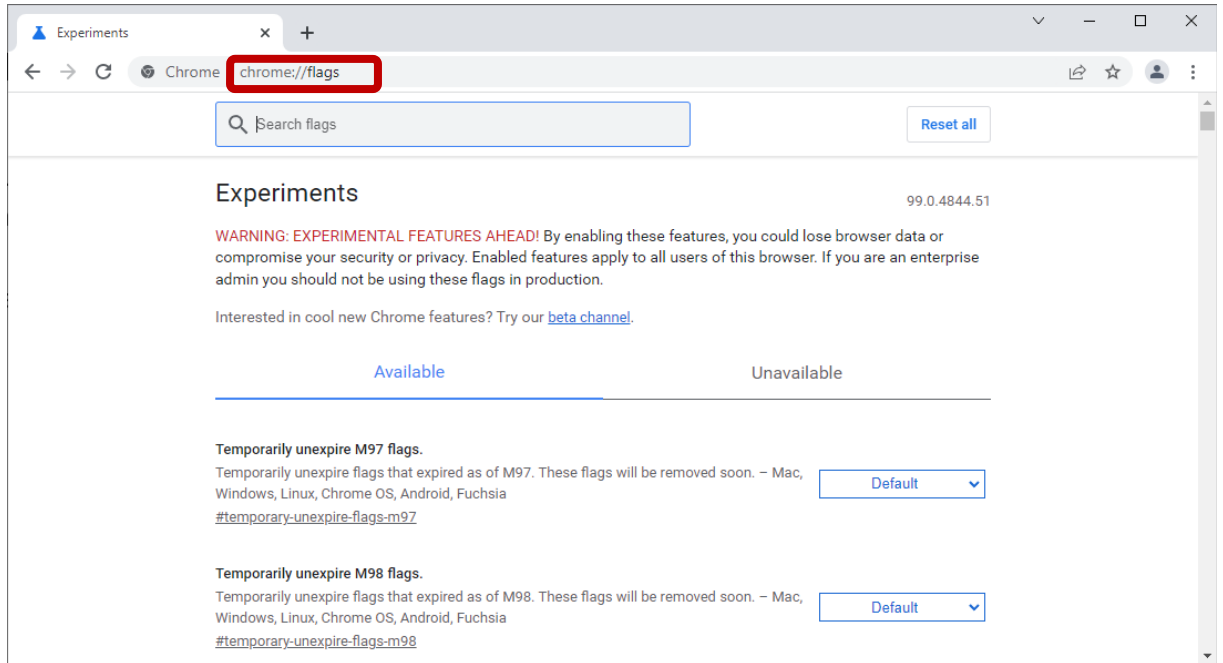2. Allow the Insecure content (just for this website)

3. Close the tab, refresh the Scratch 3 page, and import the Home IO library
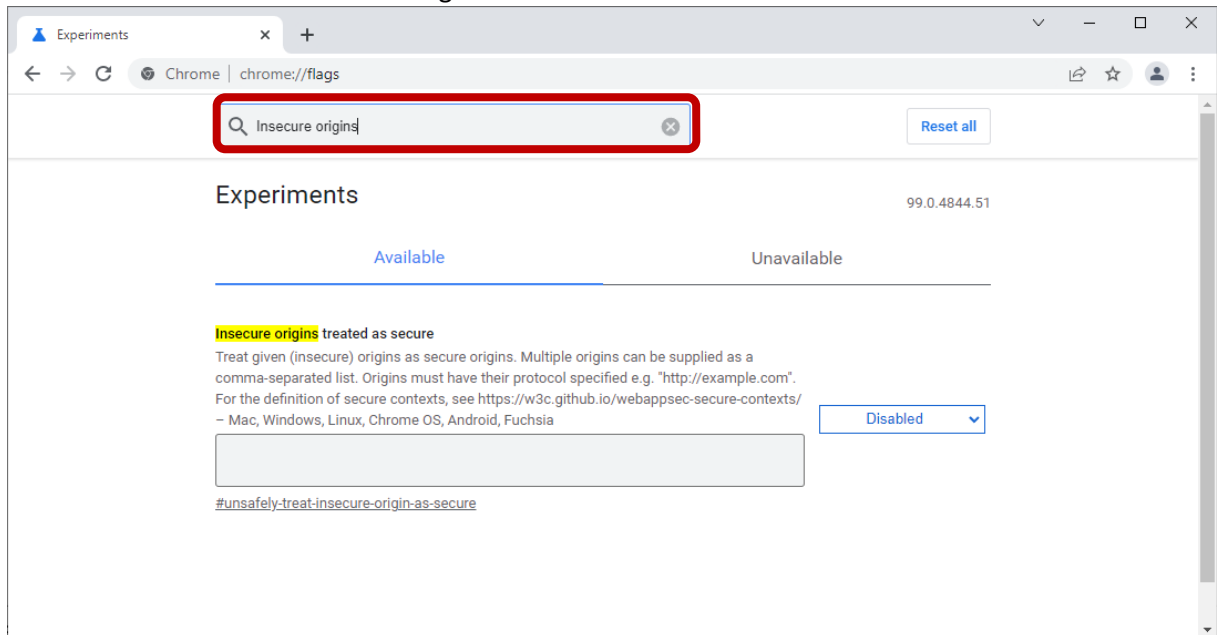4. You are ready to use the Home IO server from your hardware

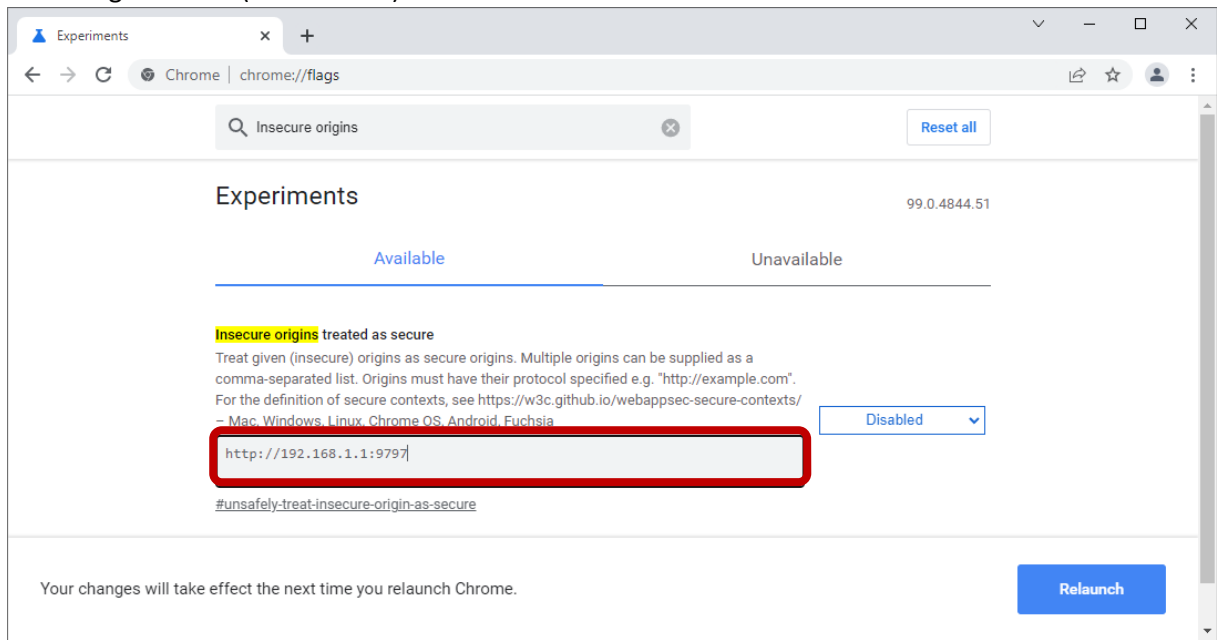➢ **Chrome on Androïd/Computer** (does not work on IOS)

1. Launch Chrome
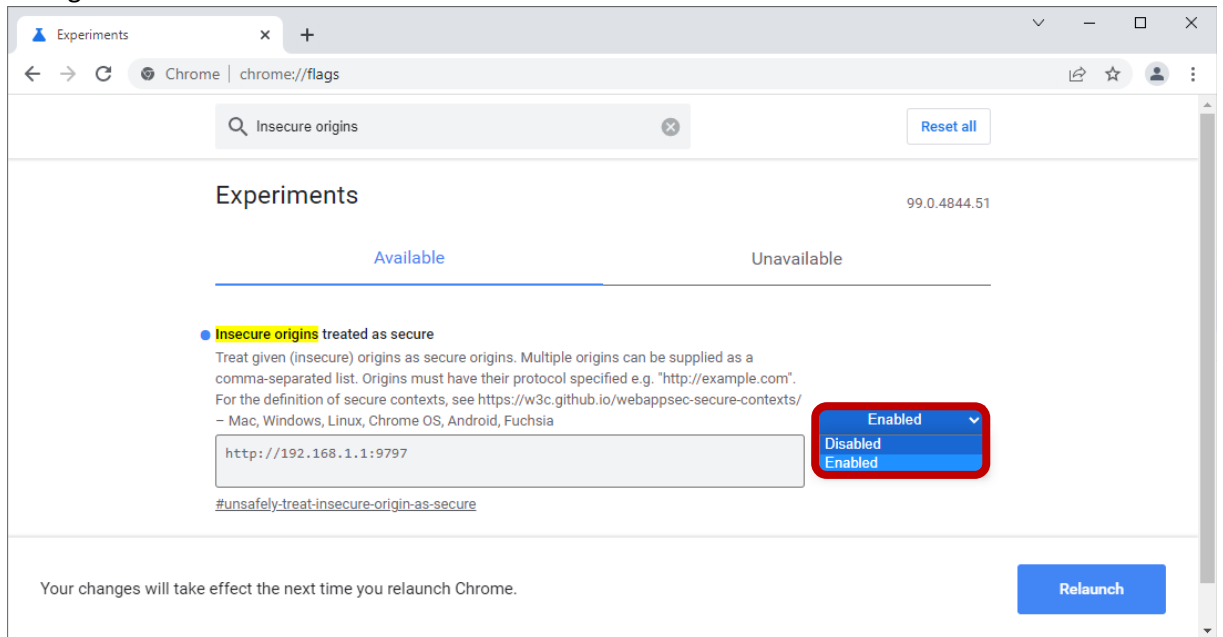2. Enter in the search bar : chrome://flags/
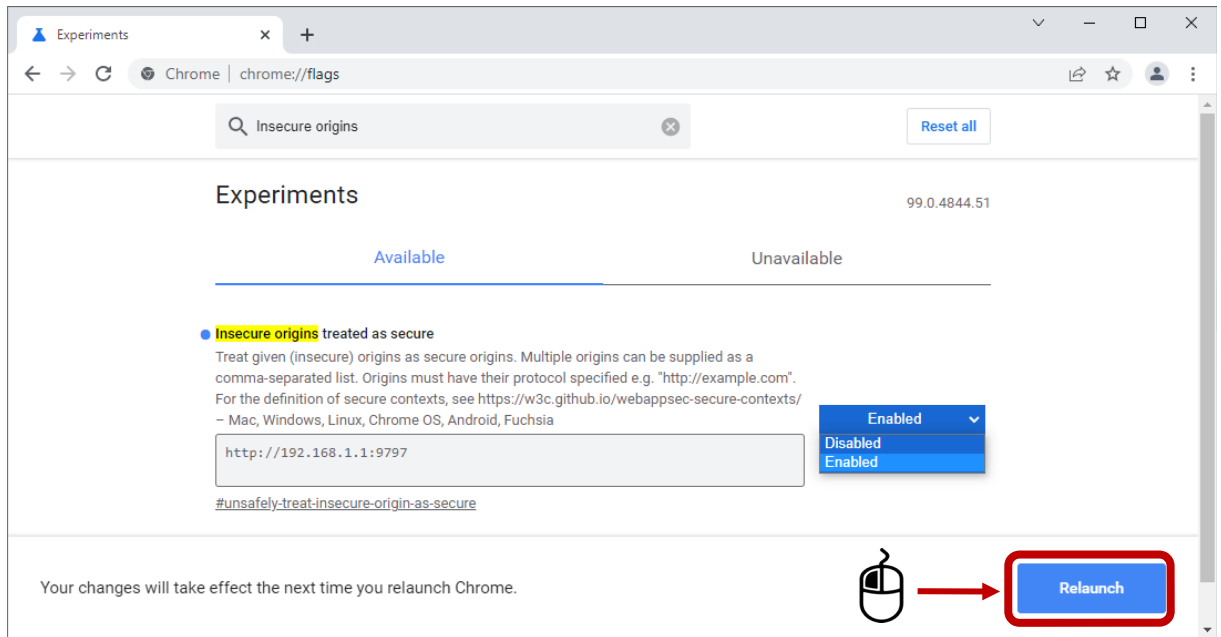

3. Enter in the search bar : Insecure origins

4. Enter http://IPaddress:9797   with IPaddress: the IP address of the computer where is launching Home IO (so its server)

5. Change Disabled with Enabled

6. Click on Relaunch

7. Go to the Scratch3 site for Home IO of URCA: https://crestic-scratch3.univ-reims.fr/ and import the Home IO library

➢ Safari on IOS

1. Go to the Scratch3 site for Home IO of URCA: http://crestic-scratch3.univ-reims.fr/ and import the Home IO library

➢ Firefox on IOS

1. Go to the Scratch3 site for Home IO of URCA: http://crestic-scratch3.univ-reims.fr/ and import the Home IO library

➢ Other cases

1. Make a first test by going on the scratch3 website for Home IO of URCA: http://crestic-scratch3.univ-reims.fr/ and import the Home IO library
2. If this does not work, look in the browser settings to allow, "mixed active content".