

DOMESTIC LIGHT

<https://domesticlight.art>

LIGHT SENSOR SETUP GUIDE

Thank you for agreeing to host a light sensor for the Domestic Light project.

Setup video: <https://domesticlight.art/setup>

Project website: <https://domesticlight.art>

Learn more: <https://domesticlight.art/technical-info>

STUCK? Email us: support@domesticlight.art

TIMELINE

Website live and 1 st sensor on	06/21/2023
Workshops / programming / talks	2023-2024
Live monitor work at SFArtsED Gallery	6/21/23 – 6/21/24
Live performance and installation	Fall 2024

CONTACTS

Lead Artist	Ian Winters	ian@domesticlight.art
Project manager	Allison Holt	allison@domesticlight.art

SETUP INSTRUCTIONS:

We're delighted to have you as a collaborator in the project!

Here are the instructions to set up your sensor as well as links to get more information, support and how to share sound or text on the website. You can also access this info via a video: <https://domesticlight.art/setup>



YOUR SITE ID / WEB LOGIN

On the bottom of your box and on the bottom of the sensor is a 6 digit number. This is your sensor and site ID and how we keep track of what data goes where.

It will also serve as your login id for the domesticlight.art website as well the ID of the data page for your sensor.

1) IN THE BOX

Inside the box is a QR code linking to the latest version of these instructions , and a QR code linking to the sensor's wifi configuration page.

Your exact case may vary due to supply chain issues, and if you asked for a USB cable or power supply it should be enclosed.

On the bottom of your sensor is a 6 digit number. This is the sensor and site ID.

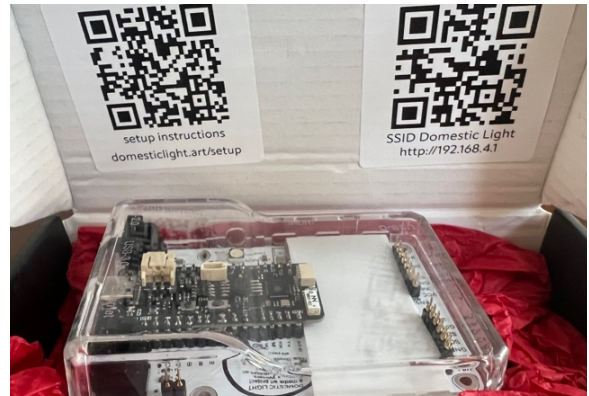


Figure 1 artist proof version of board in box

2) CONNECT POWER

Plug a USB-C power cable into the USB port at the center of the sensor. Any USB-2.0 or USB 3.0 power source will work such as cellphone charger. The device use less than 1 watt.



Figure 2 USB-C power and data port

3) PUT THE SENSOR IN SETUP MODE

The sensor has a special "SETUP" mode where it acts as a wifi hotspot so you can join that network, enter your local wifi information, and save it in memory on the device.

- To enter SETUP MODE – press and hold the left "ADHOC" mode button
- While holding it, press and release the "RESET" button on the right
- release the left button

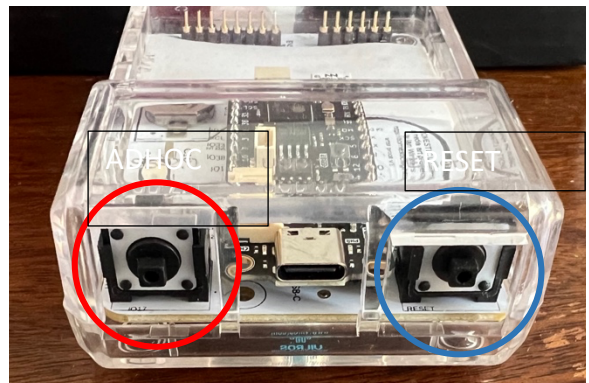


Figure 3 Adhoc button left

reset button right

4) ENTER WIFI CONFIGURATION INFO

Use your computer, phone or tablet to join the wifi network called "Domestic Light"

- Open a browser on that device and enter <https://192.168.4.1> (if using a tablet or phone you can use the QR code on the box inner lid).
- Enter your wifi network and password
- If you want to use the data in real time yourself, enter an OSC (Open Sound Control) address and port to send it to.
- Click "submit" to save this information.
- Please make a note of the SITE ID. It should match the number on the bottom of your sensor.
- Press the RESET button to restart.

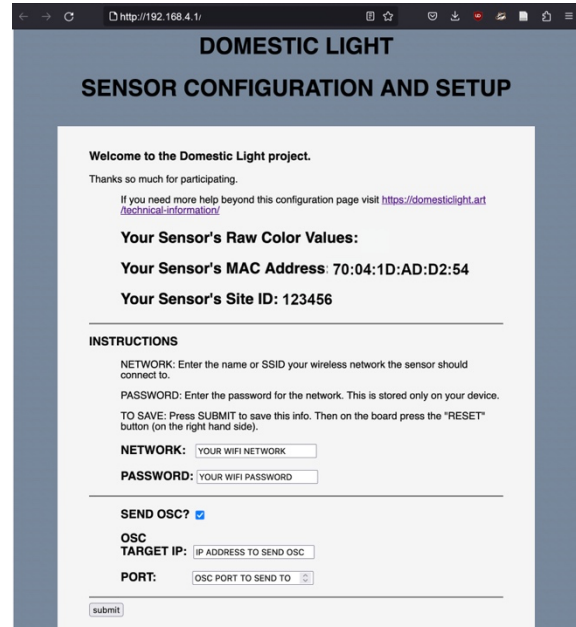


Figure 4 192.168.4.1 - SENSOR CONFIG PAGE

5) PLACE YOUR SENSOR IN YOUR HOME

Once you've gotten the sensor online find a windowsill or nearby place inside that gets daylight at least part of the day. Set it in place and plug it into power. If set-up has worked the blue LED should be slowly turning on / off every 10 seconds.

6) CONFIRM WITH US - please email ian@domesticlight.art with:

- Your site / sensor ID
- What direction of sun exposure the sensor has (if you know).
- A picture of it installed for our archives (if possible)

WEBSITE LOCATION PAGE:

Your location has its own page identified by the sensor ID and city with a satellite view of your city.

We have made login section of the website that you can use to ask technical support questions, and upload sound to share as well. You will have gotten a temporary password by email with this guide.



Figure 5 location "portrait" image 1:36,000

ADVANCED TOPICS AND GETTING MORE INFO

Observing the data:

If you are interested in seeing the live output of the sensor data you can connect to it in a few ways:

- 1) Watch it on our website by clicking on the dot that is your location. The pop-up will show the live data.
- 2) Use OSC and send the data to a computer on your local network
- 3) If you are familiar with programming and use of a serial monitor the sensor echoes the data packets sent along with other troubleshooting information to the serial port. You can connect it to a computer running a serial monitor to observe. Note - if you do this, please press the "reset" button on the right hand side after you connect a serial monitor. ESP32S3 sometimes can suffer a serial connection crash and pressing reset will restart the board.

Using the data set:

We will be publishing the data set of color data collected at the end of the project in 2024. We will keep everyone posted on the that process.

Technical details:

<https://domesticlight.art/techincal-info>

Project code:

If you are interested in the project code it housed on GitHub at <https://github.com/thirtysevennorth/domesticlight>

Workshops and building additional sensors:

We are also working on a workshop guide to construct your own sensors. Please get in touch if you are interested.

VOC, IAQ, Greenhouse Gas monitoring:

If you have a board labeled "artist's proof" or "production" it has the ability to add a VOC (volatile organic compound) and IAQ sensor. We are researching whether the combination of the color sensor (which reads IR light) and a multi-gas VOC sensor can be combined to create a low-cost methane plume detector.

If you would like to be part of the process or have expertise to share please get in touch.