

Mapping Cameras

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Introduction

This document was written with the intent of introducing you to a map showing the location of various surveillance cameras as they exist around the world, and how to go about adding more cameras to this international catalogue.

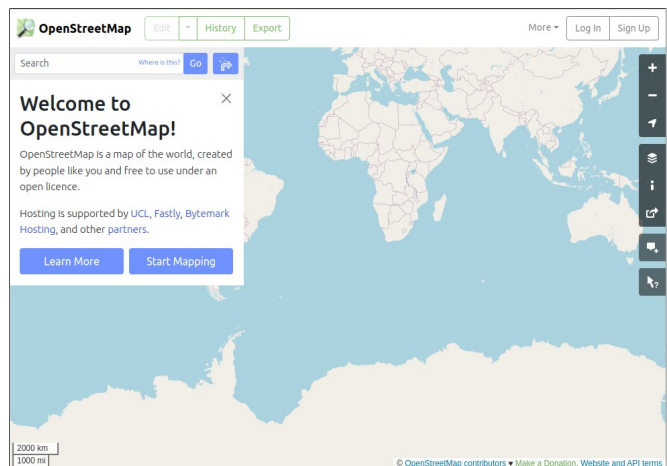
OpenStreetMap

Naturally we won't be using Google Maps for this and instead we'll use OpenStreetMap. This is also a map of the world but it's created by a community of people who are keen on mapping, rather than any particular well known BigTech company. OpenStreetMap is free to use under an open license. You can read more about this at <https://www.openstreetmap.org/about>

You can browse the map of the world by going to its main website, <https://www.openstreetmap.org/> where you may pan around the map by clicking and dragging with the mouse (or moving your finger across the screen if you're on a phone or similar). Double clicking with the mouse on a particular spot will zoom in a fixed amount, but if your mouse has a scroll wheel then using this will give you a speedy method of zooming in/out. Or, you can use + and - at the top right of the window to control the zoom as well. The more you zoom in the more detail you see.

There is no satellite view or street view available however. Have a play around and get familiar with the sort of information the maps can show.

The default view of OpenStreetMap does not show us the surveillance cameras that people have mapped. Here's two websites that do:



The OpenStreetMap default view

Map Complete – <https://mapcomplete.osm.be/surveillance.html>

Surveillance under Surveillance – <https://sunders.uber.space/>

We'll be focusing on the second website listed above, Surveillance under Surveillance. This website seems a bit more mature when used on a laptop or desktop computer and lets you see finer details about cameras. You can certainly use a phone but you may find you're limited to what you can view. You'll be able to see the location and type of camera, which is useful too, but that's about it.

When you visit this website you'll probably be shown Berlin, Germany, with a scattering of numbers all over it – these are clusters of cameras!

As you zoom in these numbers will disappear and will reveal the placement of surveillance cameras. In Berlin's case most of these are represented by a blue and white icon of a camera. Looking at the map's key we learn those particular cameras are observing a private outdoor area.

Some cameras have a semi-transparent arc or circle around them. These indicate the direction or field of view the camera has.

Clicking on a camera icon should reveal a pop-up giving you more information about that camera. If available, you may even be able to see what the camera sees. If you don't get a pop-up then reload the web page and try again. One quirk with this website has been observed where sometimes information about a camera does not pop up when you click on it. This seems to be caused by double-clicking on the map to zoom in. If this happens to you just reload the web page in your browser and try again. Consider using the + and - buttons in the top left of the web page to zoom in to avoid this problem.

Checking Out A New Zealand Camera

Let's take a look at a camera closer to home.

Click on the icon of the magnifying glass and in the text box that shows up type in "Rosebank Road, Auckland". In the search results, select the top option.

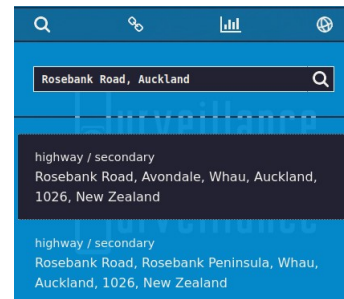
The map should update and take you to a section of Auckland showing the North Western Motorway. You'll see cameras dotted along the road. If you click on the camera on the stretch of road that goes through the water, you should see a pop-up showing more information about that camera as shown below, right:

This camera is operated by the NZ Transport Agency and in the pop-up there's a bunch of information about the camera. There's geo-coordinates, a description of the camera and other information.

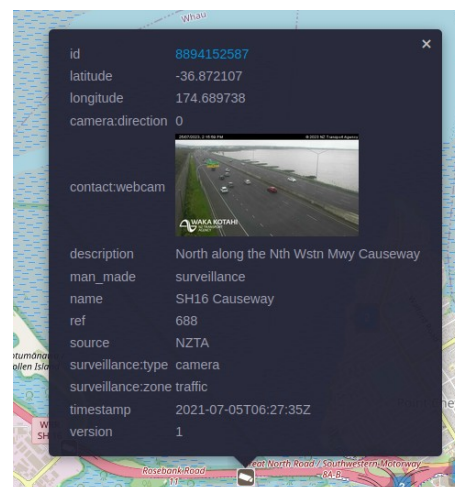
The big, glaring piece of information is a photo of the camera's view. Clicking on the photo will take you to their website where you can see a slightly larger version of the image. The photo is updated every few minutes so if you reload the page a little later on you'll notice it update.

Explore around the map some more and check out areas of importance that pertain to you.

As you explore the map you may notice there are gaps where cameras are missing but you know you've seen them for yourself while out and about. This is likely because they simply haven't been documented yet. But we're going to change that.



Looking for Rosebank Road, Auckland



NZTA operated camera on the North Western Motorway

Creating An Account

You may have noticed on the Surveillance under Surveillance website there is a section called "how to participate" with a couple of links that let you login with an existing OpenStreetMap account, or create a new one. We'll assume this is your first time mapping so the next step will be to create a new account at <https://www.openstreetmap.org/user/new>.


When you get to this web page you'll be prompted for an email address, display name and password. You can choose to use the third party login if you want but it's suggested you don't as

this will end up linking your identity between the sites. It's better to keep these separate and use a separate email address (or an email alias) with a new password that you've never used anywhere else before.

Follow your nose with the rest of the account creation process, including reading and agreeing to the terms of use. Oh, you've never read terms and conditions before? Read them. It's fun.

Once you've made an account you should receive an email confirming your new account. Once that's completed you're invited to login for the first time.

Getting to Grips With Editing

Thankfully, the OpenStreetMap website has a nice walk through to help you get your hands dirty with the art of editing. This can be easily found by clicking on the green  button that's at the top of the window.

A pop-up like the one on the right should present itself, inviting you to start the walk through. Click on this and follow the on screen instructions.

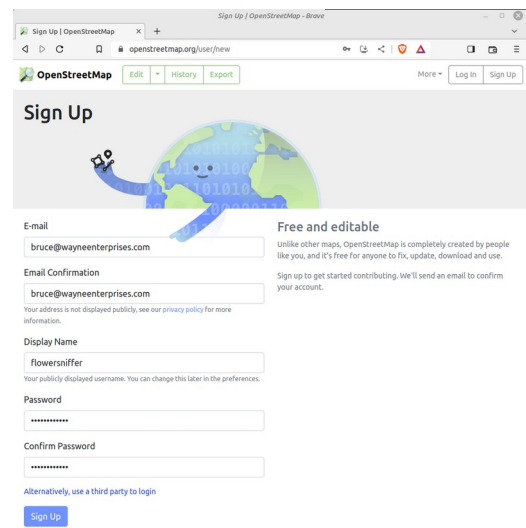
You can do this walk though a few times if you like to help you get used to it.

Adding A Camera Of Our Own

The camera we're going to add is mounted at a controlled pedestrian crossing on a stretch of Papanui Road in Christchurch, in between Normans Road and Chapter Street and across the road from St Andrews College. You can see where this is by looking at the section of map below and observing the icon of the traffic light icon that's in the middle of the yellow (not brick), road. The image on the right is a photo of the camera itself.



Normal view of Papanui Road



Creating a new OpenStreetMap account

Welcome to the ID OpenStreetMap editor

ID is a friendly but powerful tool for contributing to the world's best free world map. This is version 2.26.2. For more information see [changelog](#) and report bugs at [github.com](#).

Our privacy policy has recently been updated. By using this software, you agree to do so in accordance with the [ID privacy policy](#).

▼ Your Privacy Settings

Show Third Party Icons

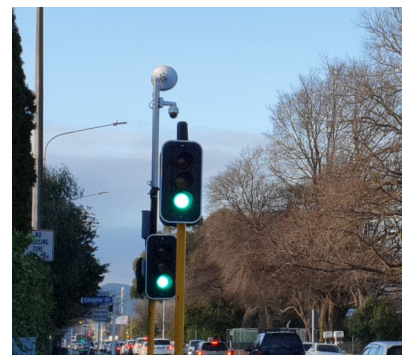


[Start the Walkthrough](#)





[Edit now](#)

About to start the walk through



The camera at the lights

Using skills acquired earlier when going through the OpenStreetMap walk through, click on the  button – unless you’re in edit mode already. As with the walk through, the map will show a satellite photo with the OpenStreetMap imagery superimposed on top. So an accurate placement can be made it’s best to zoom in enough so we can see things properly.

To place our camera we click on the  **Point** icon and then click on the map where the camera goes. Then over on the left side of the map type in “Surveillance Camera” in the search bar to locate the appropriate Feature Type. The list of results will update as you type. The reason we *do not* choose “Surveillance” is because the number of fields of information is not as plentiful compared to what “Surveillance Camera” gives us.

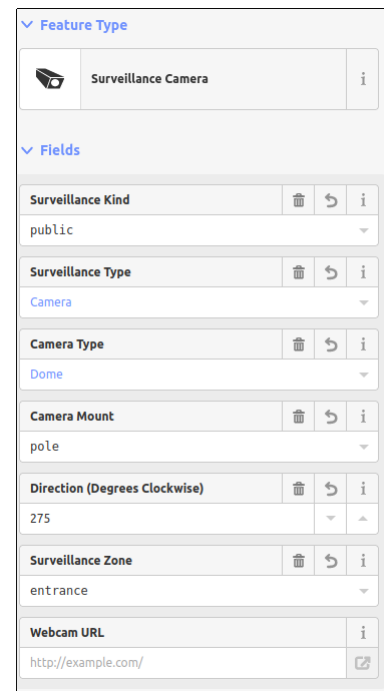
Now with our point placed on the map and our feature type selected, we can fill in the fields. For this particular camera it was felt the following features (shown right) seemed appropriate.


Each field has a drop down menu next to it with variety of options. If you’re not entirely sure what to pick there is an *i* icon you can click on that will give you more information. Also, there’s a trash can for deleting an entry with a left facing arrow to undo a change.

You might want to check out this link to get more information on tags:

https://wiki.openstreetmap.org/wiki/Tag:man_made%3Dsurveillance

For our particular example there’s a couple of fields of interest. These are the direction and surveillance zone. How did we know what to enter here?



Feature Type	
 Surveillance Camera	<i>i</i>
Fields	
Surveillance Kind	<i>i</i>
public	
Surveillance Type	<i>i</i>
Camera	
Camera Type	<i>i</i>
Dome	
Camera Mount	<i>i</i>
pole	
Direction (Degrees Clockwise)	<i>i</i>
275	
Surveillance Zone	<i>i</i>
entrance	
Webcam URL	<i>i</i>
http://example/	

Features of our camera



While standing next to the pole the camera is mounted on, we refer to our old school carbon based eye-cronometer optical recognition technology, and just look at it. That said, dome cameras can often be tricky because they’re dark and hard to see into.

But with the light of day at the right angle you can usually tell which way they’re facing. Just look for the lens. Some cameras have the capability of being able to swivel around so be sure to observe it for a time to make sure it’s not one of those.

Being able to see the lens gives away what it’s looking at. In this case it seems to be pointing at the driveway for St Andrews College.




Our dome camera revealing its lens

That’s all we need to add for our camera for now, so click on the save icon  in the top right of the window. We can always come back later  on and add more information about a camera.

Then add a change comment (i.e why you made the change), then click on Upload.

Congratulations! You’ve just added a camera! Feel free to celebrate with a beverage of your choosing.

If you want to get out of editing mode so you can browse the map normally, click on the OpenStreetMap image  **OpenStreetMap** at the top left of the window.

Now What?

With our new camera added to the map we now need to play the waiting game. Surveillance under Surveillance updates their website about every hour. That's when we can return to that website and check out the fruits of our labour. Maybe have another favourite beverage then, too.

As there are a variety of cameras out there of different types and capabilities, it can be difficult to know how to fill out the field information. Some cameras will be capable of reading license plates, also known as ALPR (Automatic License Plate Reader) but it won't necessarily be obvious what ones those are.

So how does one find out about cameras in your area? Sometimes it means looking up your local council website to get detailed information, or submitting an Official Information Act request. Government and Councils must respond to these but not private businesses.

Have fun!



Our new camera!