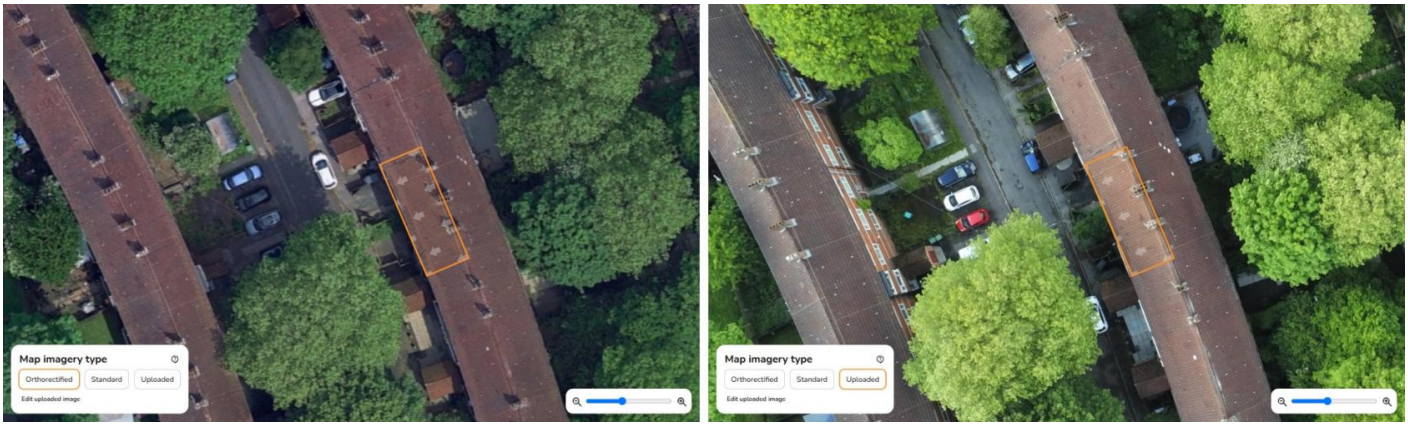
Drone photos and plans

With Easy PV Pro you can use your own drone photo or site plan in the **Outline** or **3D** task, in place of the satellite imagery, to create a base for your designs. You line it up with the map once, and Easy PV can do most of that for you. From then on you design your model on top of your uploaded image. This will also be the picture your customer sees in the proposal.



Above: The same roof in satellite imagery (left) and in an uploaded drone photo (right).

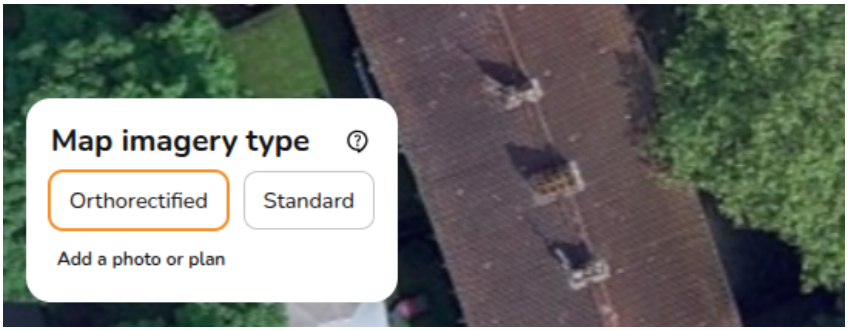
Before you start

- **Plan:** uploaded images are part of Easy PV Pro.
- **Design modes:** it works in **Outline** and **3D** projects.
- **Files:** a JPEG or PNG photo, or a PDF plan (up to 15 MB). A project can hold one uploaded image at a time.
- **Best photos:** taken from above the property with the camera pointing straight down (-90° on the gimbal), from high enough to get the whole roof in.
- **Use the original file:** most drones record the height, direction, and position of each photo in the file itself. Easy PV uses these details to size, turn, and place the photo, so upload the photo as it came off the drone. Messaging and editing apps often strip out this metadata.

Adding a photo or plan

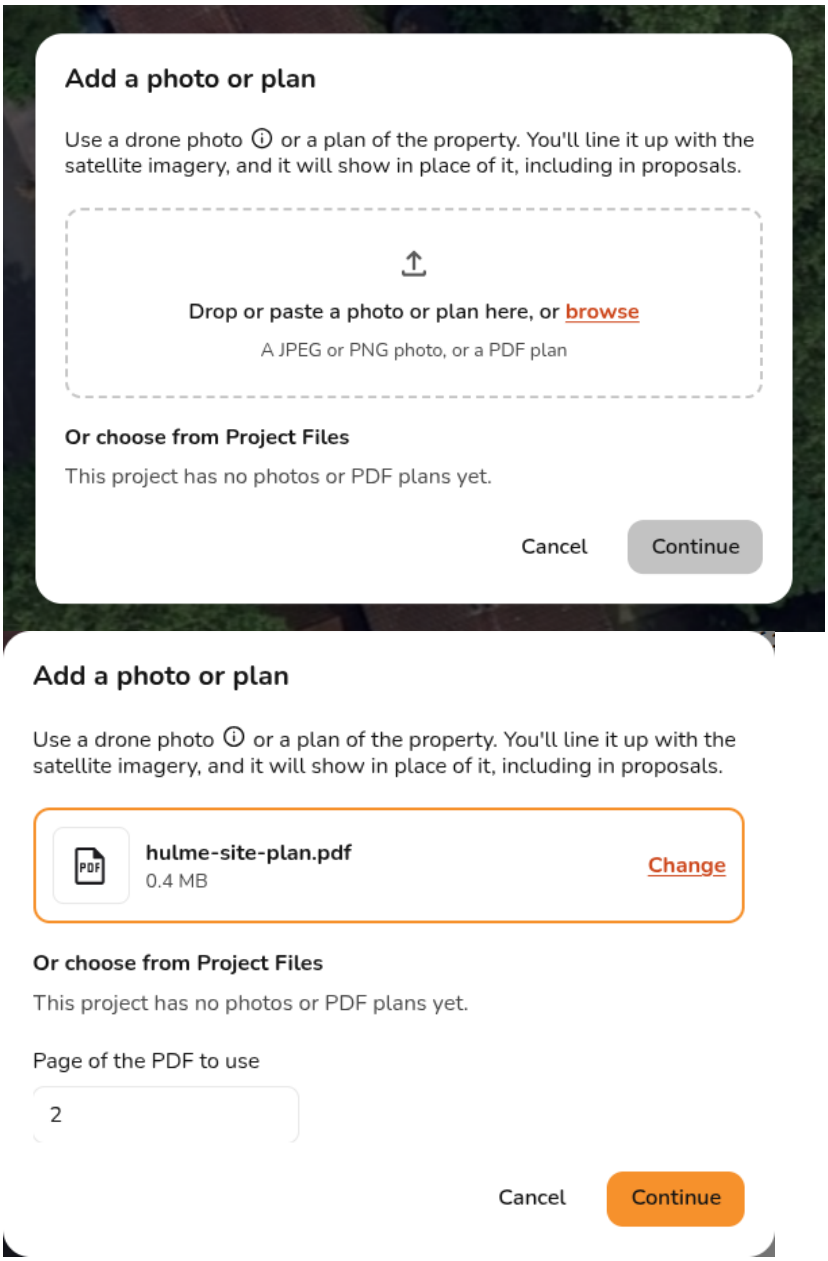
1. Open the image options

In the **Outline** or **3D** task, find the **Map imagery type** card at the bottom left of the map and click **Add a photo or plan**.



2. Choose the file

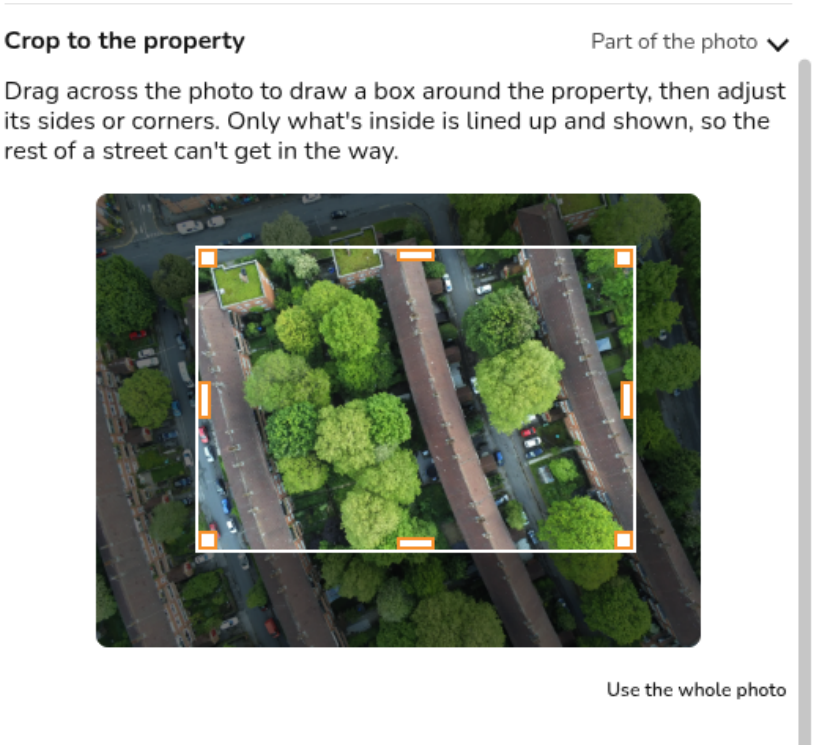
Drop the file onto the upload box, paste it, or click **browse** to select it from your device. You can also choose a photo or PDF already saved in the project's **Project Files**. For a PDF, specify which page to use in the **Page of the PDF to use** box.



Above: the **Add a photo or plan** window as it opens (left) and with a PDF chosen (right).

3. Crop to the property (optional)

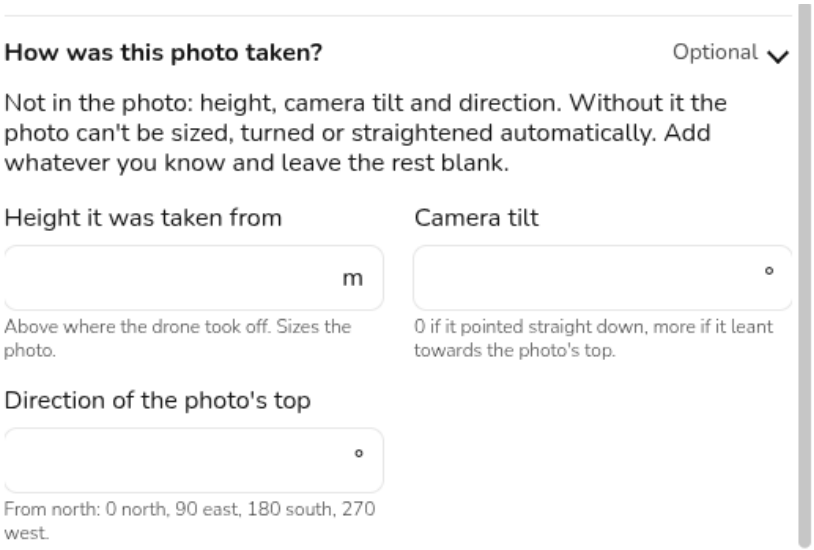
If the photo shows much more than the property, open **Crop to the property** and drag a box around your desired location. Easy PV will only line up and show what is specified in the cropping box, so you can remove any extraneous features from large photos. The button **Use the whole photo** will clear the cropping selection.



4. Specify how the photo was taken (optional)

If the photo doesn't record how it was taken, the **How was this photo taken?** section lists what's missing. You can fill in what you know and leave the rest blank:

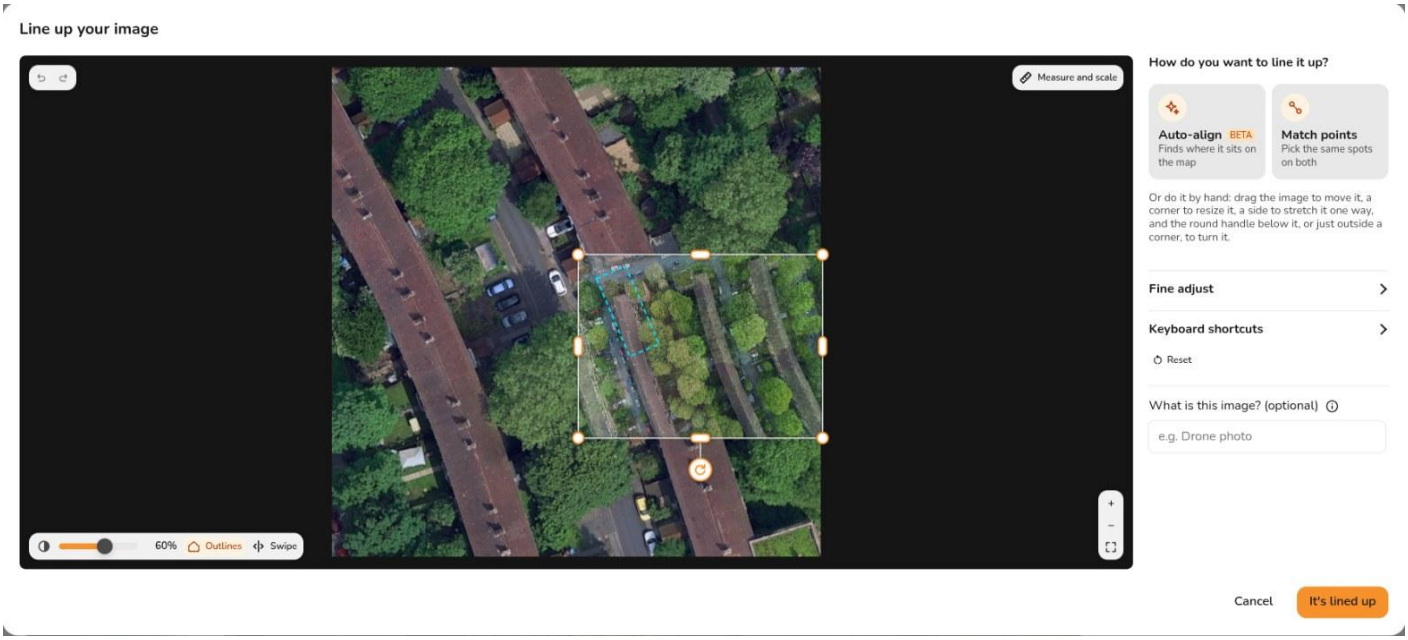
- **Height it was taken from:** above where the drone took off. This sizes the photo.
- **Camera tilt:** 0 if it pointed straight down. A tilted photo is straightened.
- **Direction of the photo's top:** in degrees from north. This will help orient the photo.



When finished, click **Continue**.

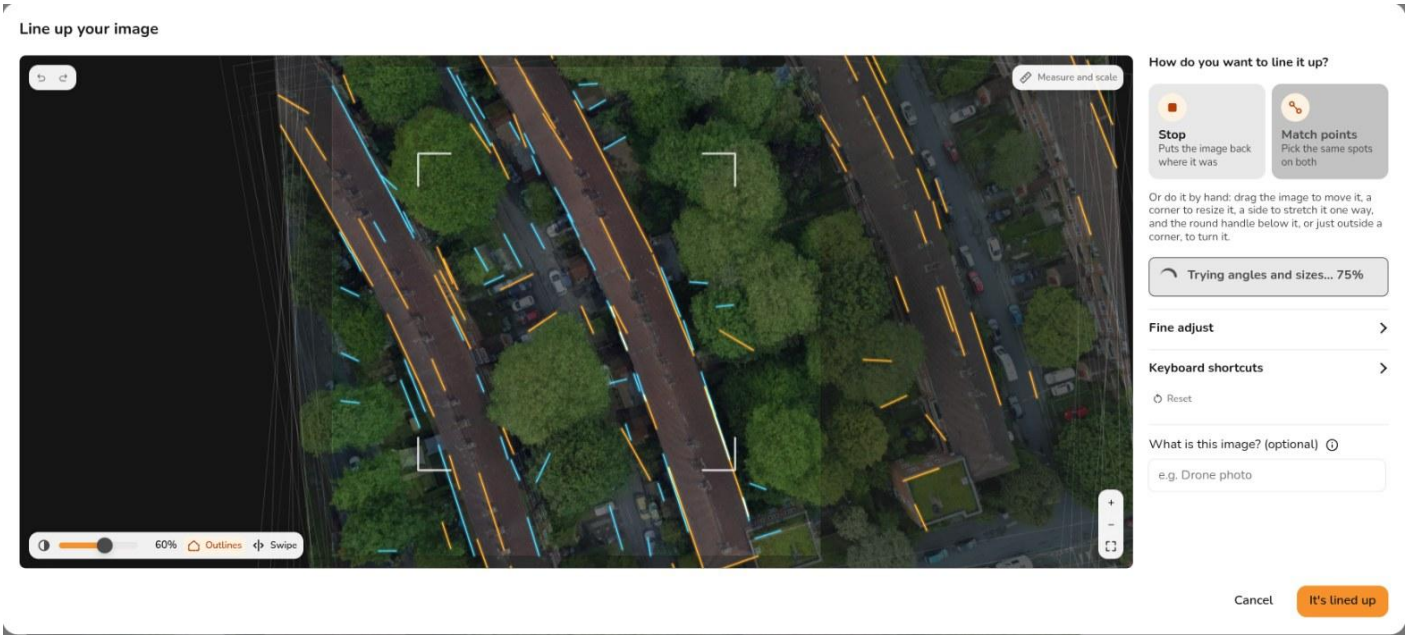
Lining up your image

Your image opens over the map in the **Line up your image** window. The dashed outlines are the roofs you've already drawn on the Easy PV satellite image. The aim is to get these outlines to sit on the same roofs in your uploaded image. There are three ways to accomplish this, and you can mix these methods as you see fit.



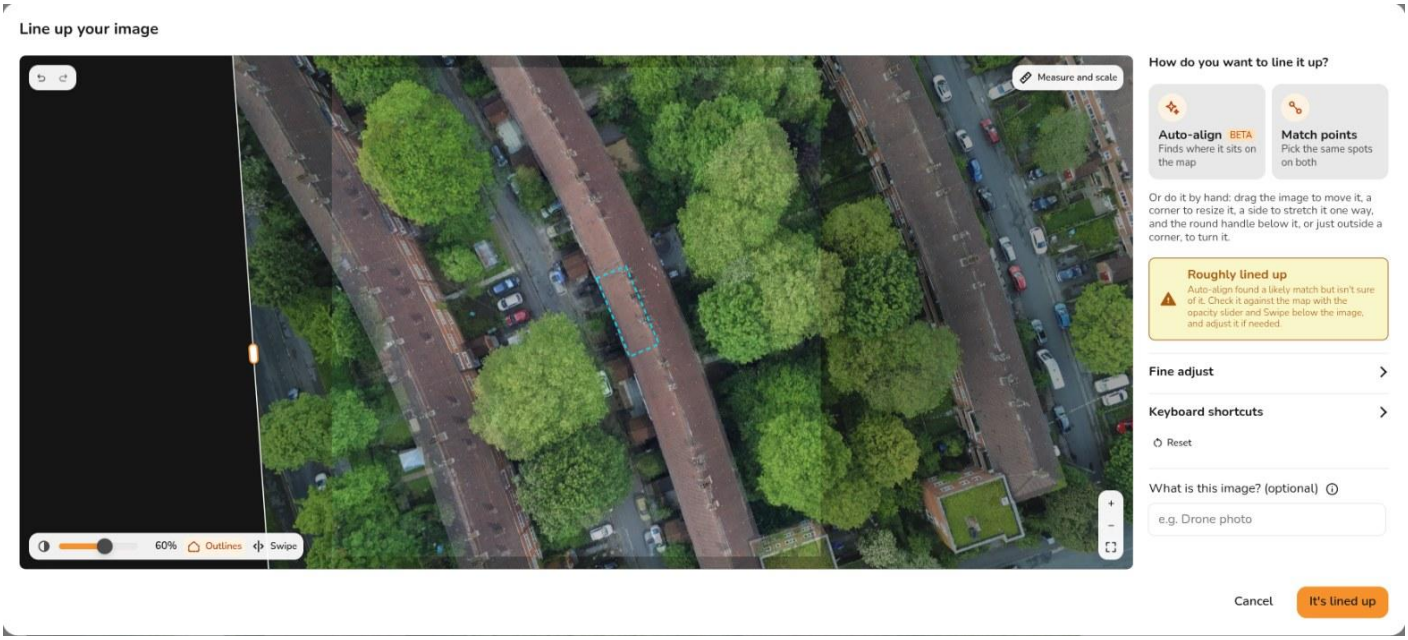
Auto-align (beta)

Click **Auto-align** and Easy PV will attempt to find where your uploaded image sits on the satellite image, trying different positions, angles and sizes. It typically takes 5 to 20 seconds, and you can watch it work. Clicking **Stop** resets the image back to its original location.



When Auto-align finishes, a message will appear saying how confident it is in the match:

Lined up automatically	A clear match. You can confirm with a quick glance.
Roughly lined up	A likely match, but Auto-align isn't completely sure of it. Check it against the map and adjust it if needed.
Fine-tuned from where you put it	You placed the image by hand, and Auto-align tidied up the fit from there.
No closer match found	Auto-align couldn't find a closer match than what you provided, so the image remained in place. To search the whole image again, click **Reset**, then **Auto-align**.
No match found	The image goes back to where it was. Drag it roughly into place and click **Auto-align** again, or use **Match points**.



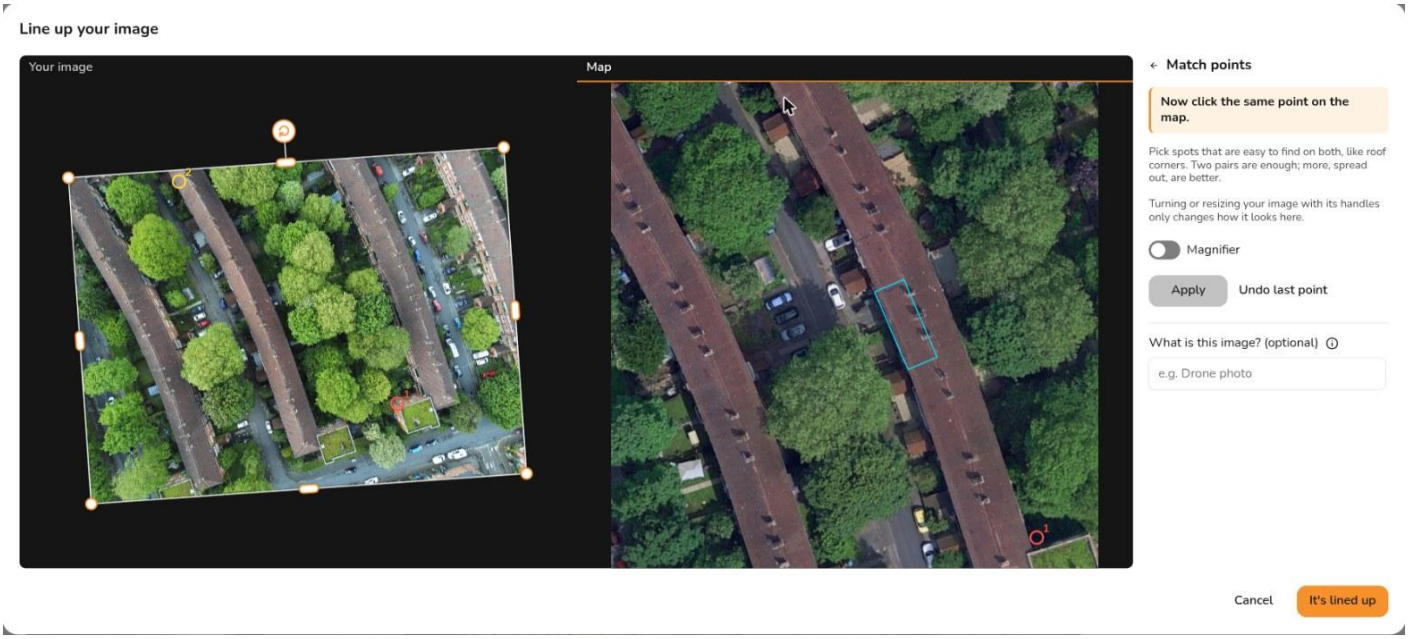
> Auto-align is still being improved, so it won't always find the right place. It struggles most when the building has changed since the satellite image was taken (such as a new build, an extension or a new roof) or when there are rows of identical roofs, where it misidentifies adjacent roofs. Lining up the image by hand or with **Match points** will work better in these situations.

> **Tip:** if Auto-align can't find the image on its own, drag, turn and resize it so it's roughly right, then click **Auto-align** again. **Auto-align** will only analyse nearby imagery, so ensure you place the image in the most accurate position for the best results.

Match points

Match points shows your uploaded image and the satellite image side-by-side. Click a spot on your image that's easy to find on both, such as a roof corner, then click the same spot on the satellite image. Two pairs of points should be enough; however, adding more, spread well apart, will improve the accuracy. Once you've added your points, click **Apply**.

This is the best way to line up a plan, because a drawing rarely looks enough like satellite imagery for Auto-align to recognise it.



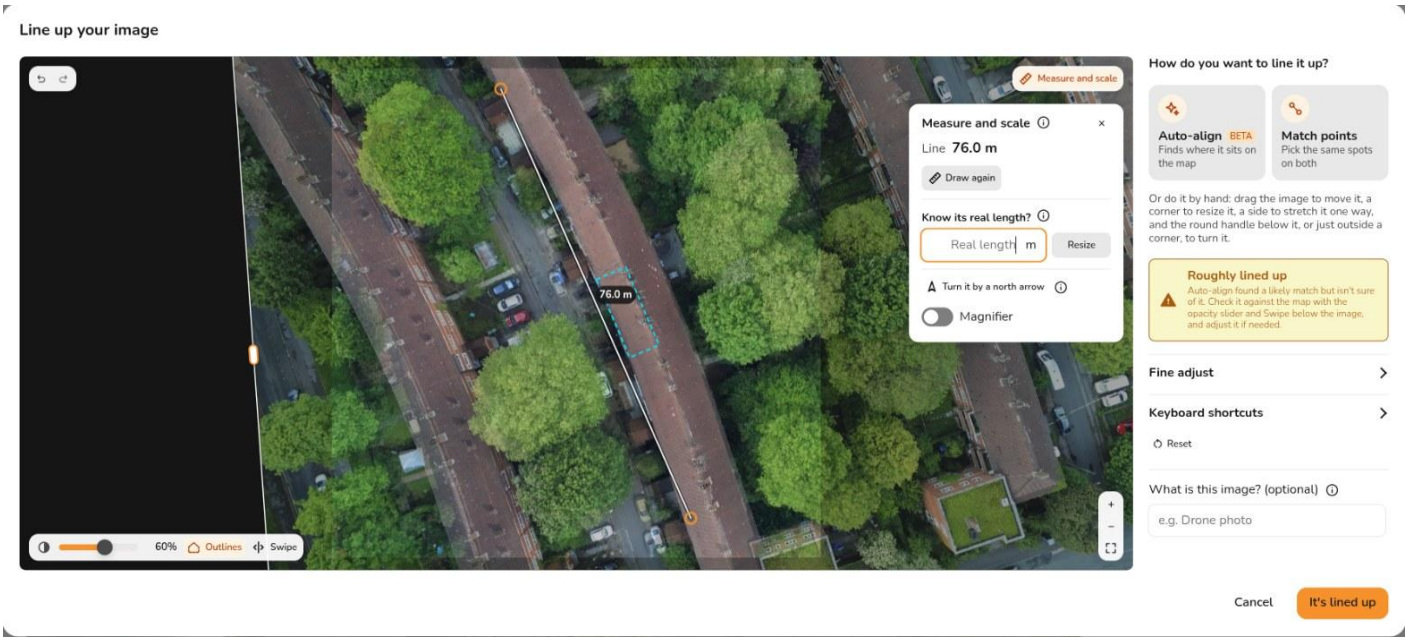
By hand

Click and drag the image to move it, drag a corner point to resize it, drag a side bar to stretch it one way, and the circular arrow below it (or just outside a corner) to rotate it. The **Fine adjust** option in the side panel changes the rotation and width in small steps, or lets you type exact figures.

Measure and scale

The **Measure and scale** button, at the top right of the view, acts like a ruler. You can click two points on your image to see how far apart they are on the ground.

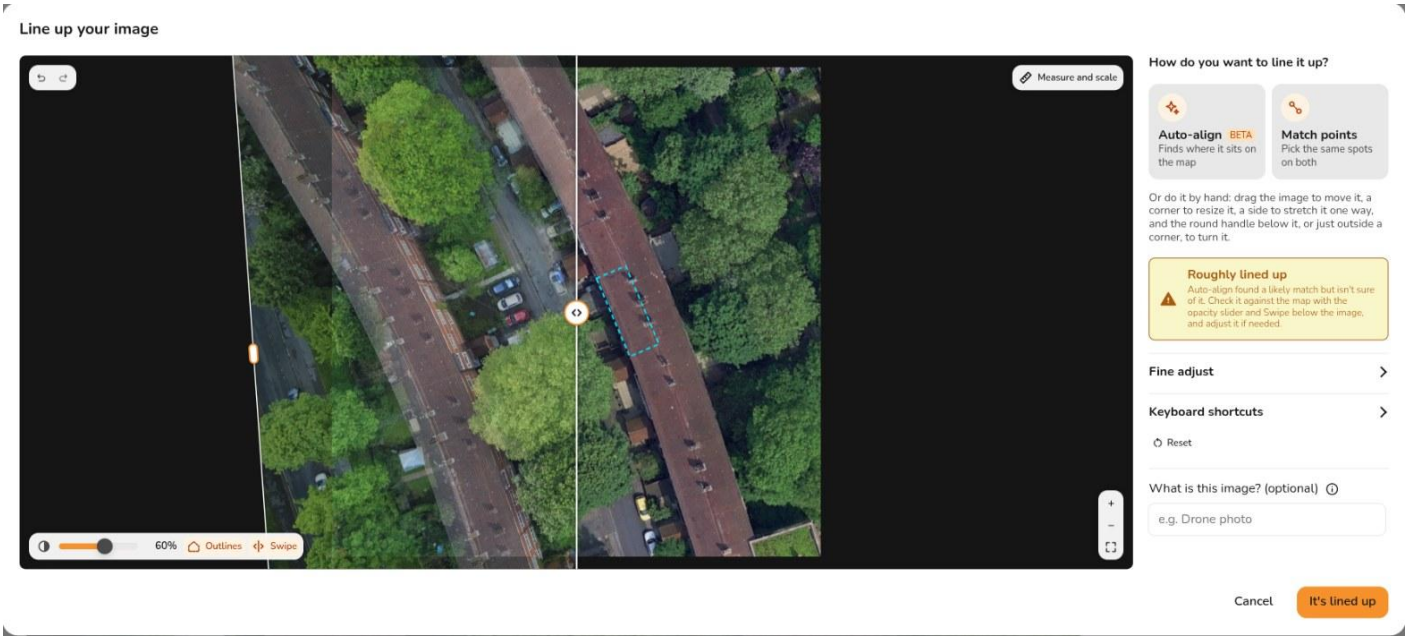
It's also used to size a plan, which records no size of its own: draw the line along the plan's scale bar or a wall you know the length of, type the real length under **Know its real length?** and click **Resize**. A plan with a north arrow can be turned with the **Turn it by a north arrow** button. Do both before dragging the plan into place.



Checking and saving

Whichever way you line up your image, check it before saving and moving on. The controls are at the bottom left of the view:

- **Image opacity:** fade your image to see the satellite image background behind it.
- **Outlines:** show or hide the roofs you've drawn.
- **Swipe:** shows your image on one side of a divider and the satellite image on the other. Drag the divider across a roof edge: if the edge carries straight on, the images are lined up.



The undo and redo functions are at the top left of the view (Ctrl + Z functions as an undo command as well), and **Reset** puts the image back where it started. The **Keyboard shortcuts**

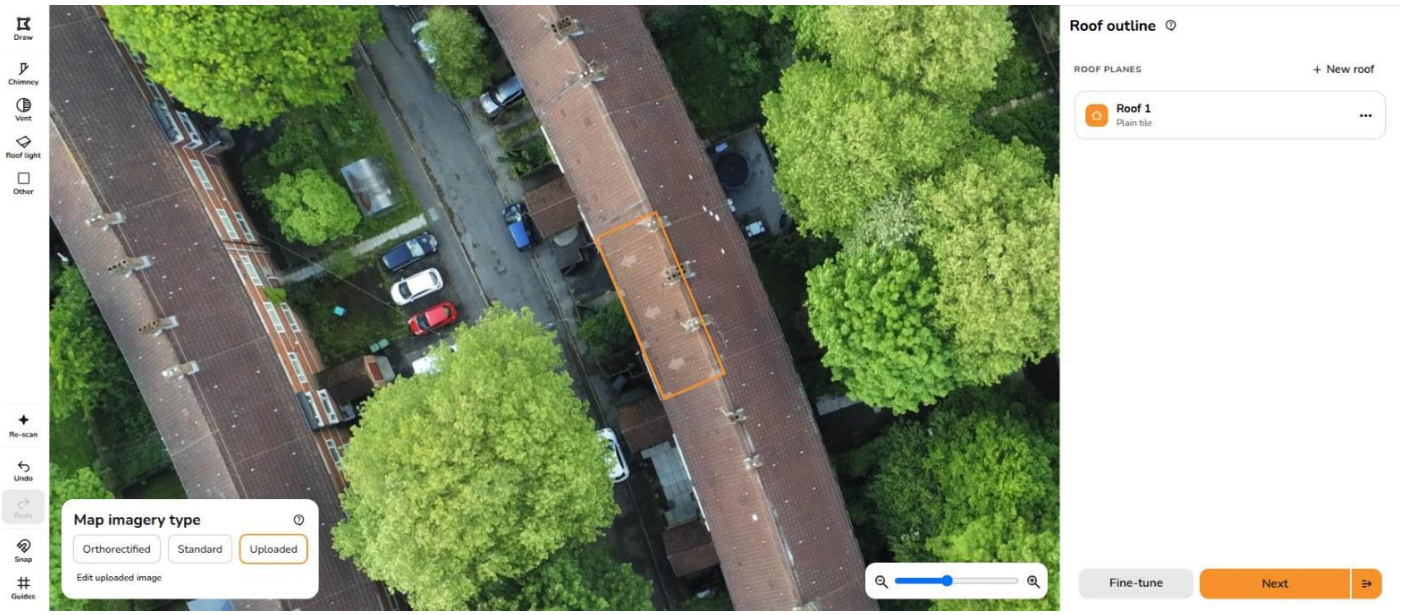
section in the side panel lists the keys for moving, turning and resizing your uploaded image.

Under **What is this image?** you can give the picture a title for the proposal, such as *Drone photo* or *Site plan*. Left empty, it has no title.

Once the outlines sit on the roofs, click **It's lined up** to continue. Clicking **Cancel** closes the window without changing anything.

After it's saved

The map now shows your uploaded image, and the **Map imagery type** card has an **Uploaded** choice next to **Orthorectified** and **Standard**. You can switch between these different views at any time - your uploaded image will stay with the project if you swap views.

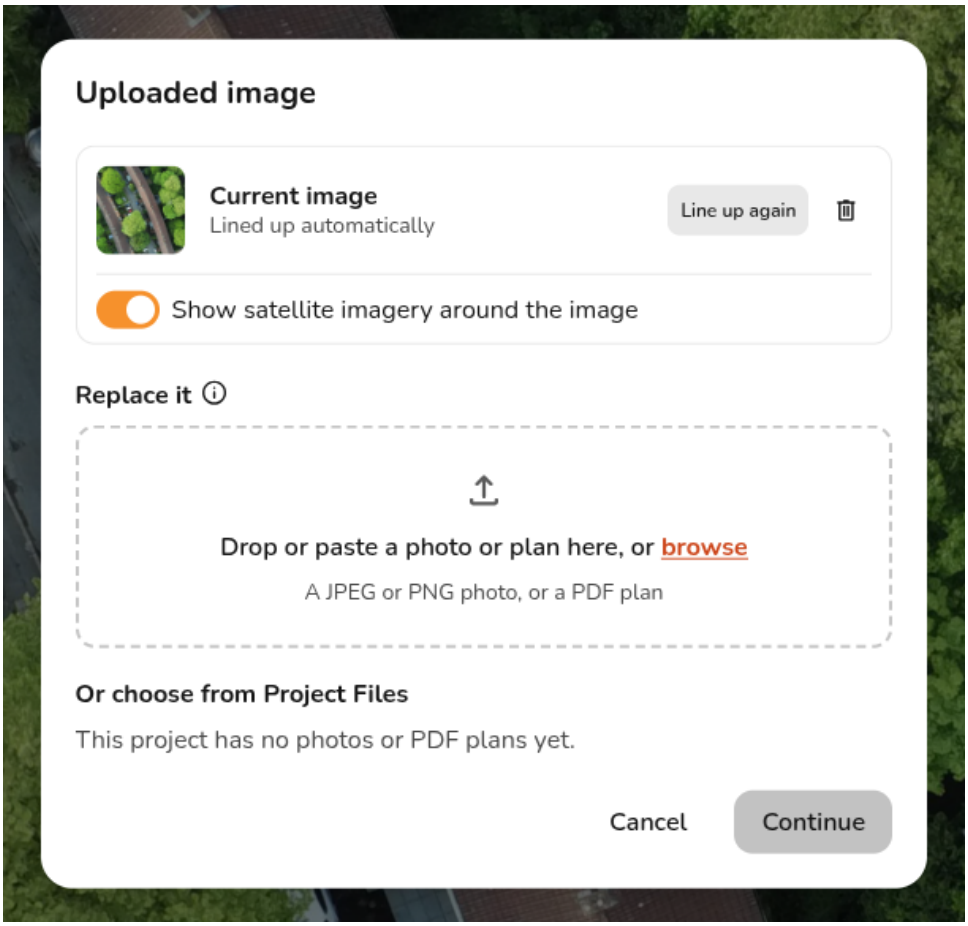


Your uploaded image is used wherever the satellite image was:

- **Outline and 3D tasks:** as the background you draw on.
- **Customer proposal:** in place of the satellite image, with the panels drawn on top.

Click **Edit uploaded image** on the card to change it:

- **Line up again:** reopens the same image to adjust where it sits.
- **The bin:** removes the uploaded image and puts the map back to the satellite imagery you used before.
- **Show satellite imagery around the image:** when your image doesn't cover the whole map, satellite imagery fills in the space around it. Switch this off to leave the surrounding area empty.
- **Replace it:** upload a different photo or plan.



Tips for photos that line up well

- **Point the camera straight down.** Easy PV straightens a tilted photo, but roofs and tall buildings still lean in it, so they won't sit exactly on the map.
- **Fly high enough to take in some surroundings.** Roads, walls and neighbouring roofs give Auto-align more information to use when matching. Trees and lawns don't help with matching.
- **Make sure the project location is on the property.** Auto-align looks for the middle of the map in your image, so the project's location needs to be on the building, not down the road.
- **Line up on the roof you're designing.** Where the roof and the ground can't both match the map, the roof is the one that matters.

Still Need Help?

- **Related FAQs:** Check out our buildings and roofs FAQs for answers to common questions
- **More guides:** Take a look at our other buildings and roofs guides for more information

Contact Support: If you've got further questions, get in touch with our support team at **help@easy-pv.co.uk** (UK) or **help@easy-pv.ie** (IE). If you are experiencing a bug, to help us look into your issue faster, please include the email address of your account, the name of the project and screenshots of any unexpected behaviour.

Example drone photo: MSDI: a geo-tagged drone imagery for absolute visual localization by Mochuan Zhan and Terence Patrick Morley, University of Manchester, used under the Creative Commons Attribution 4.0 licence. It has been resized and laid over map imagery.

Revision #4
Created 19 November 2026 16:20:12 by Amir
Updated 23 November 2026 10:24:36 by Amir