Buildings and roofs

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Which design mode should I use?

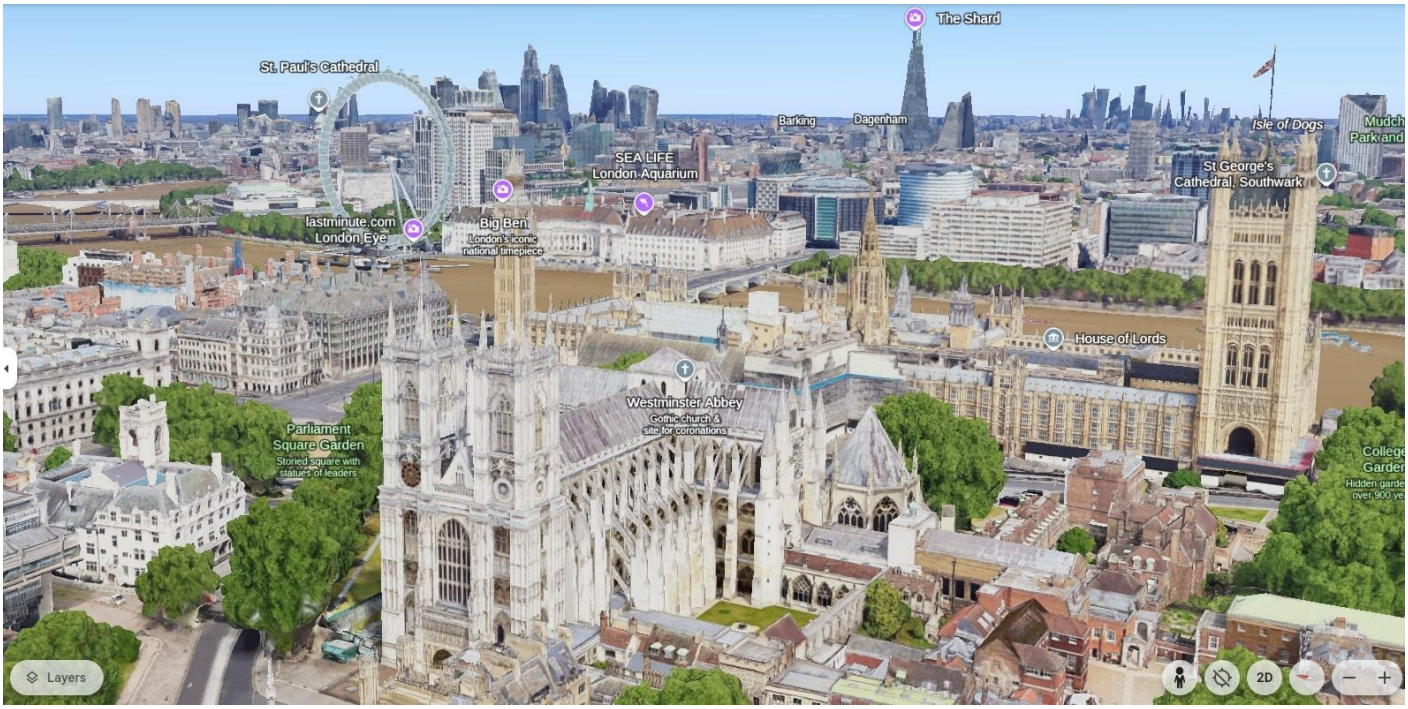
Each design mode has benefits depending on the type of project or design you are working on, details on each can be found here.

Does Magic design mode work in my area?

If you notice that Magic scanning isn't working for a customer's property, this is most likely because Google have not performed LIDAR scanning in your area yet. You can check the map on this link to see a rough representation of the areas where this has been done in orange:

https://developers.google.com/maps/documentation/solar/coverage.

Magic design mode builds a 3D model of your customer's property, and surrounding buildings for you automatically. It does this by accessing 3D data gathered by Google with LIDAR scanning, stored on their Google Solar API. If you have seen Google Earth recently, you will have noticed this 3D data has also been used to create a 3D map of many cities around the world, as shown in the screenshot below.



LIDAR scanning is not done by satellites, but rather by aeroplanes, and as such its coverage is much less than the coverage of normal, 2D satellite imagery. Google plans to eventually expand the areas scanned in this way, but so far they have done a pretty good job of scanning the areas where most people live, i.e. urban centres.

Can I upload a CAD file or design PDF to use when doing a design?

At the moment, this is not yet a supported feature. However, our developers are hard at work and constantly adding new features!

How can I adjust roof measurements in the Roof task?

To see the roof dimensions, click on the corner of the roof.

This will show you the dimensions of the two adjoining sides. You can click on either of these figures to enter a new figure. It’s the same process for checking and adjusting the dimensions of chimneys, vents, etc.

Can I change the orientation of the panels on a flat roof?

Yes, you can. Horizontal and portrait panels will automatically be angled toward the “bottom” or “gutter line” of the roof whether flat or ground-mounted. In roof outline mode, the “bottom” of the roof is the first side you draw. In quick roof mode and 3D design mode, the “bottom” of the roof is based on how you set the orientation of the roof.

If you want to change the angle of the panels, you’ll need to change the orientation of the roof. For a standard flat roof, the panels will orient towards the yellow circle:



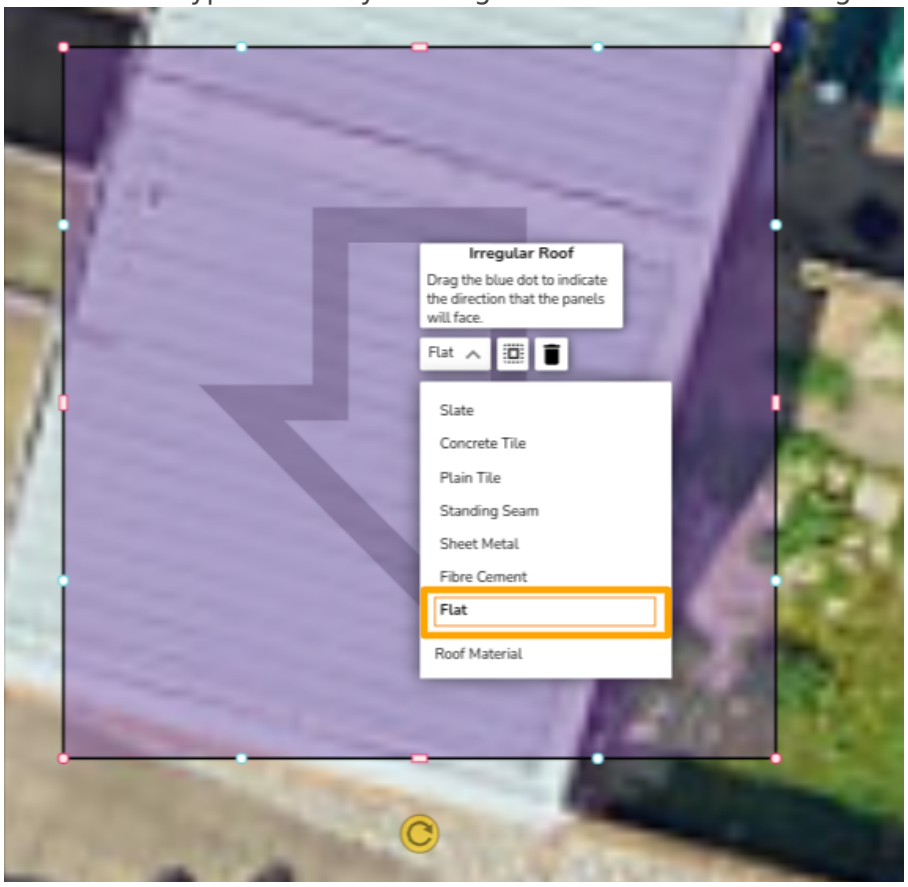
If you want to orient the panels another way on a flat roof you can use the **irregular roof tool** and the following steps:

> Note that this option is only available when using the **3D design mode** and will also change the direction of any obstructions on the roof.

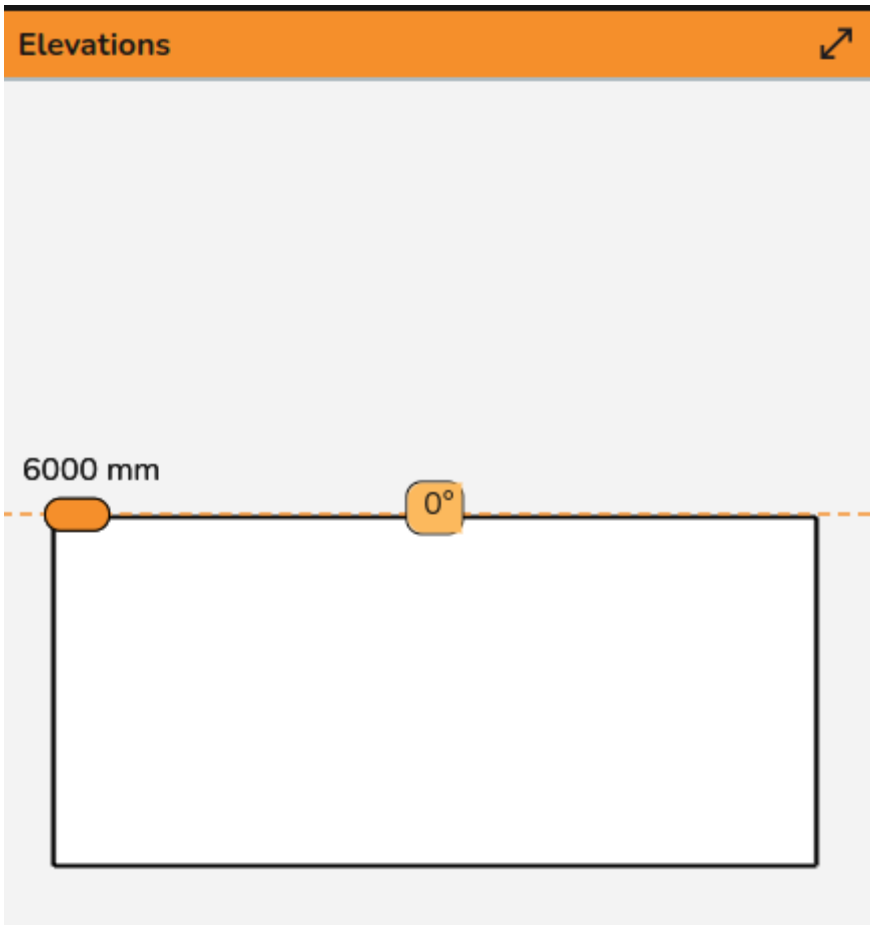
1. Select the 'Irregular building' option in **Misc.**



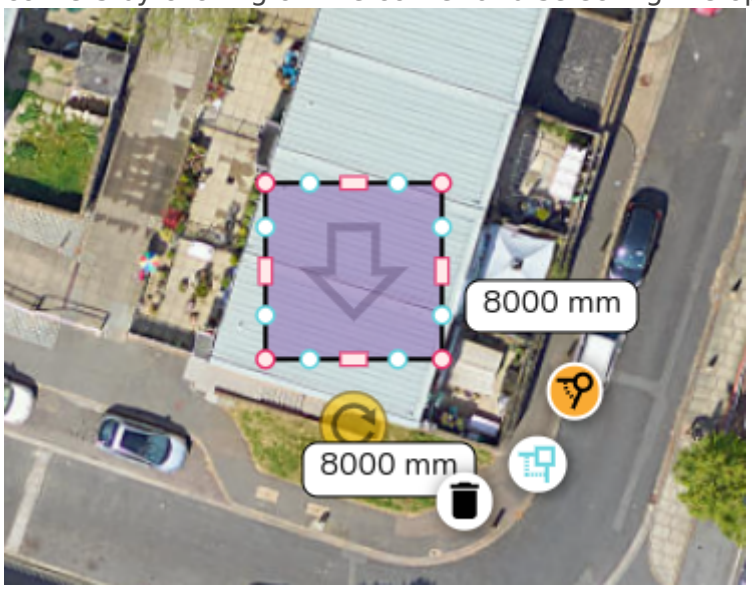
2. Set the roof type to flat by clicking on the roof and selecting from the mini-menu



and the pitch to 0 in the elevations view



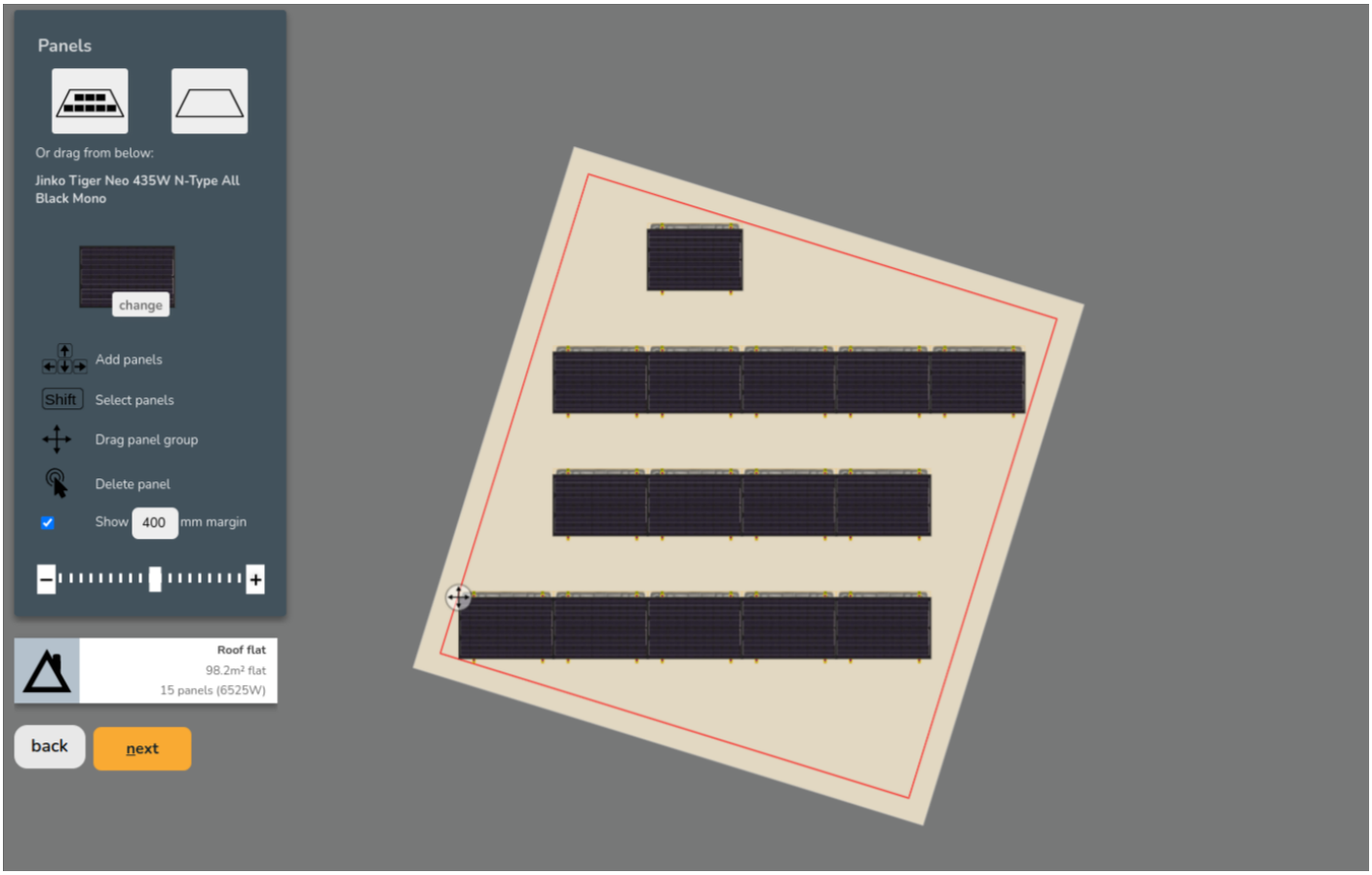
3. Size and reshape the roof to the necessary roof - if needed you can fix the angles of the corners by clicking on the corner and selecting the option highlighted in blue below.



4. Drag the blue dot to direct the arrow, the arrow points in the direction of the panels.



Then when you enter the panels task, the panels will face the direction specified:



The roof type I want isn't an option, what do I choose?

The roof options on Easy PV are slate, concrete tile, plain tile, sheet metal, standing seam, fibre cement, flat and ground mount.

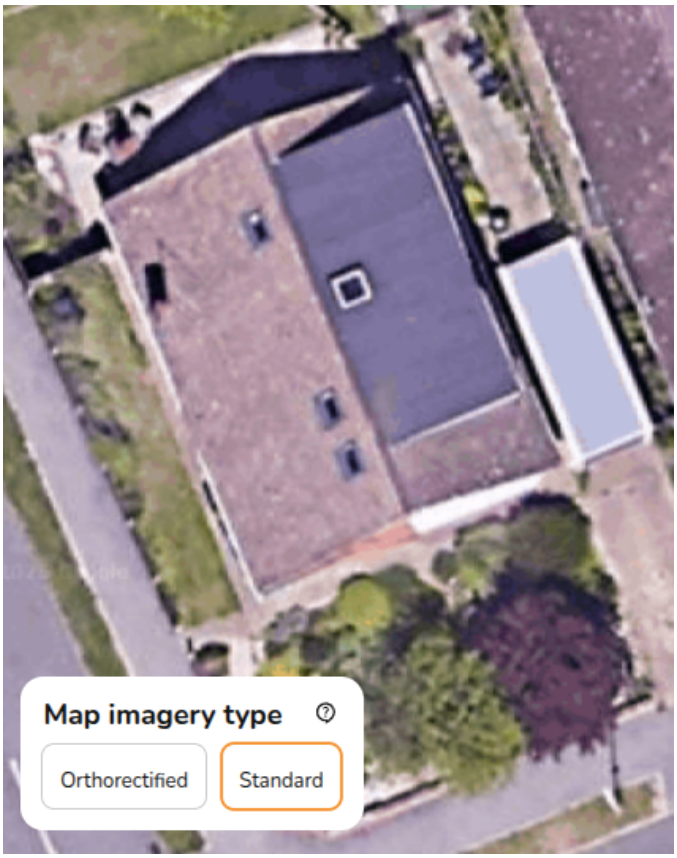
If you need an option that isn't available, the choice you make here will depend on which **mounting system** you plan on using. You will need to work backwards and select whichever roof covering allows you to select the mounting you want.

What is the difference between orthorectified and standard satellite imagery?

The **orthorectified** map is geometrically corrected to give more accurate dimensions. The **standard** map uses raw satellite data which means dimensions may be distorted, particularly for sloped structures.

Where possible you will want to use the orthorectified map, if it is not available then the dimensions in Easy PV may not be accurate to the actual dimensions.





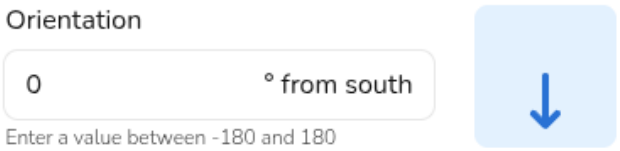
What do I set as the orientation in Quick Roof?

For Quick Roof projects, you have to directly set the orientation rather than it being calculated based on the satellite map. This is done in degrees from south, going clockwise.

For example:

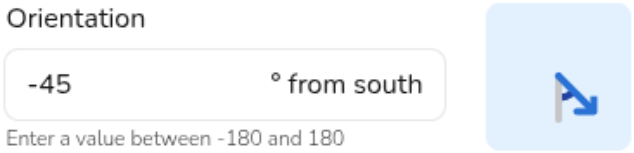
- **South**:

  0° from south



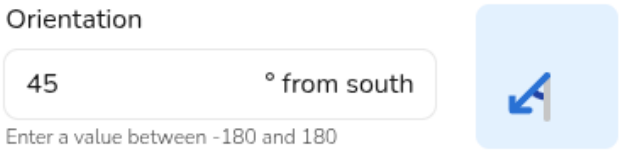
- **South-east**:

  -45° from south



- **South-west**:

  45° from south



Navigate to the performance task and the roofs tab (click edit inputs) to see the orientation diagrams shown above.