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Exercise - Solar Panel Identification

Airtenance is a company that exploits drones to monitor and maintain different kinds of installments. They turned to us to design a solution for solar panels' maintenance. Starting from their drone shots of solar panels, we must find an algorithm to perimeter single panels, for further investigation on the status and efficiency of solar cells.

Access <u>here</u> a folder with the images that should be classified.

You are asked to <u>develop a package</u> that allows to:

- 1. outline single panels (i.e. identify their perimeter);
- 2. find the centroid of a panel;
- 3. provide the GPS coordinates for the centroid of a panel (optional).

You are free to pick the preferred languages & frameworks.

Employ the most advanced solutions available from the open-source community and/or discussed in recent scientific literature, aiming to achieve an accuracy rate in recognition above 98%. Provide a detailed description of the technical solutions you used.

Find below an example of a successfully processed image:

