In the third model, we need two normal cameras.

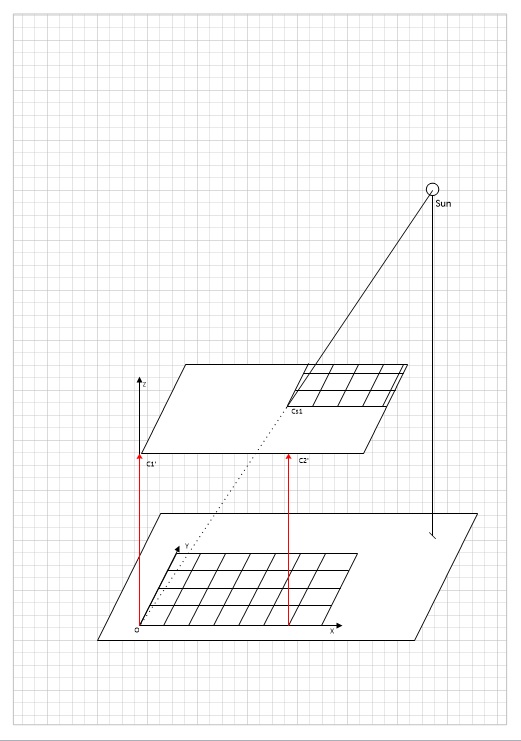
1. Solve ρ

Set two cameras around the solar farms, set the camera shot perpendicular to the ground. Record the camera position vectors as and .

Since the cameras are perpendicular to the ground, the center of the photos they took should be the equivalent C1’ and C2’. Mix the two photos into one picture, is the distance between the centers in pixel. We can calculate the ratio ρ of the true distance in the sky to the pixels in the photo is that ρ=, the unit is meter per pixel.

1. Map solar cells in the mixed photo

Establish a coordinate system in photo and use the sun in the photo as the origin, record it as Cs1, x-axis||Cs1Cs2, and y-axis⊥Cs1Cs2, use ρ to set up other coordinate of solar cells.



％Camera direction：只有与Z轴夹角？没有与x轴夹角or夹角为图片中SC1与C1C2夹角？

1. Use motion vectors to detect cloud and shut down solar cells.