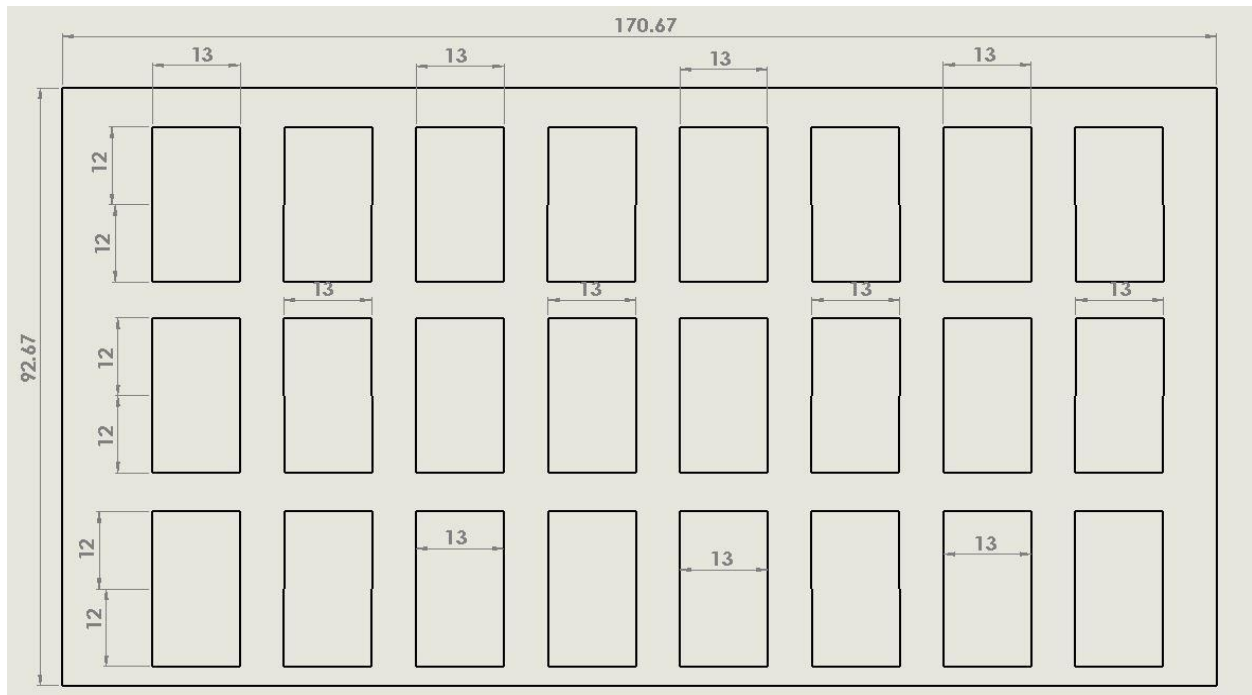


## Solar cell pixel unit to mm conversion

Since image comprises of pixels, distance between any two points in the image which forms a line segment would also be in pixels i.e. length of the line segment would be in pixel unit. To measure the distance between two points in the image in mm, it would always be relative as it would depend on the size of the screen where the image is displayed.

For an approximate criterion, I factored the pixel unit to mm based on the image size in pixels and the solar cell square size given (156mm<sup>2</sup>). Consider the figure below.



Given the size of the solar cell is 156 mm<sup>2</sup>, let's say it's length and width are 13 and 12 mm respectively. Spacing the cells approximately as per the provided grayscale image, it would look something like the above figure. The outer rectangle showing the size of the image is around 170\* 92 mm<sup>2</sup>.

Now,  $170 * 12 = 2040$  (close to 2048)

$92 * 12 = 1104$  (close to 1088)

So, the closest multiple which converts (170\* 92) mm<sup>2</sup> image to (2048\* 1088) pixels image is 12.

So, we can approximate 1mm = 12 pixels