Solidworks

Creating a custom texture from a 3d model

This is the front view of a 3d model of a wire mesh, we will use this model to create a cosmetic woven appearance
Although not strictly necessary, it will be clearer if I cut away everything but the repeat.

I have also set my background to white and displayed model as shaded.
Create a camera

A sketch will help with setting up a camera
I’m using the sketch to target and position the camera

Turn off perspective and set the height and aspect ratio to match perfectly the repeat
Now press ‘space bar’ and select the camera
Save the first image

Save As PNG, choose the options dialog

User defined Print Size to match camera aspect ratio, actual size and dpi, I don’t know experiment to see what works best
When I first tried this I was hoping that using the alpha channel I could just set the background transparent. Unfortunately that doesn’t work but I found a nice tip how to do that if you don’t have any fancy imaging software. PowerPoint can do it for you.

Make the second image

To create actual holes in our texture we need another image. If I had some nice image editing software it would be easy enough, but here’s a way to do it all from solidworks.

Set the appearance and background so that the part is all white on a black background.
Turning up the luminous intensity does the trick

Save as PNG with same settings as before.

We now have both files we need.
To use the texture, browse for your first image
Note the background is showing black 😊

Select the Surface Finish Tab (available with advanced options)

And choose Custom Hole Mesh, then browse for your second image
Voila!

Hope you enjoy