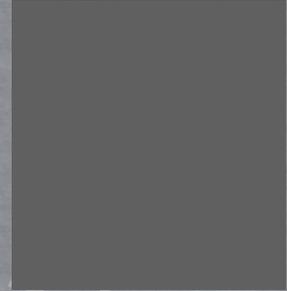# Creating sci fi panels in Photoshop - workflow

Part 1 – base metal

Create a document which is 1024x1024 pixels in size

Fill the background layer with a dark grey colour

Now use a random grunge brush that is slightly darker than the base colour and paint over lightly at around 10-15% opacity. Remember you can use layers masks to paint away the areas you don't want so don't be too fussy.

Now repeat this step a few more times using different brushes while using a very low opacity changing the brightness of the brush only slightly.
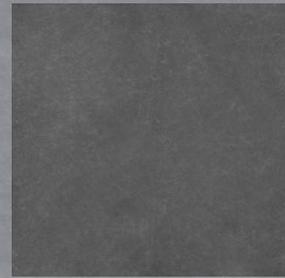
Do the same again with but using a lighter grey than you background and paint lightly over the image until you get something your satisfied with.

repeat this step on different layers on a low opacity

Now find a scratch bush and start to overlay the scratches on a separate layer
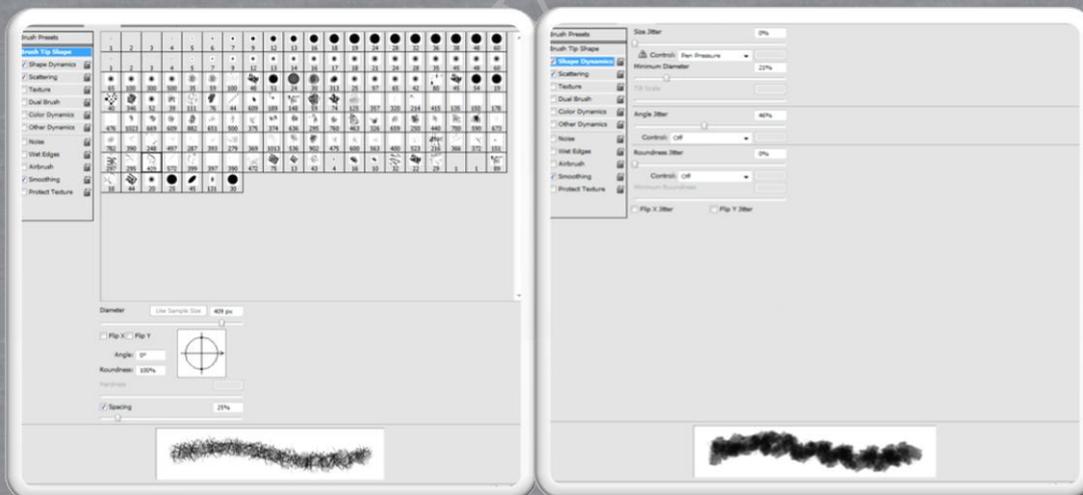
Repeat this step but with a different size brush to give some variation to the size of your scratches.

Brushes can be found at: www.brusheezy.com or just by searching with Google

don't forget that on each of these layers you can use layer masks and remove bit you don't want. If it looks bad then just play with the opacity of each layer until your happy.

Part 2 normal and fake ambient occlusion

I am going to use the nvidia Photoshop normal map plug-in which can be found here:

the normal map plug-in works by taking a image and using the brightness values to calculate the height and angle for the normal map, meaning the white values represent areas that stick out more, black values don't stick out at all and greys can be used to create anything in-between.

First you have to create a greyscale image that represents the general height of the object you are creating. These are the steps that I used to create the height map:
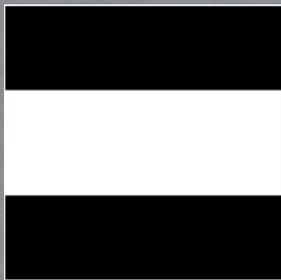
 Larger sections first
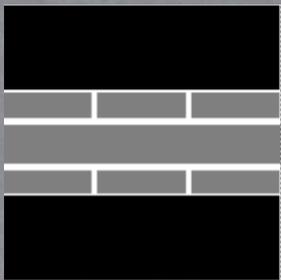
 Smaller sections that have less height (the less high you want the part to be, the darker you make it in the height map
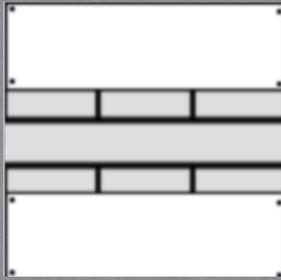
 Add a smaller details e.g. bolts, cracks, and hinges ECT.

Before we run this through the normal map filter we need to create a fake ao map by hand.

This can be done simply by selecting the areas that are less likely to be hit directly by light e.g. cracks and holes and fill them with black and Gaussian blurring it.
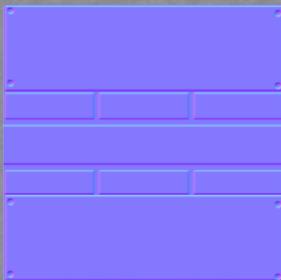
Example of this technique:

This tutorial only uses basic examples you could go into much more accuracy than shown.

To make the normal map just take the original height map run it though the plug-in and adjust the settings to something you like.
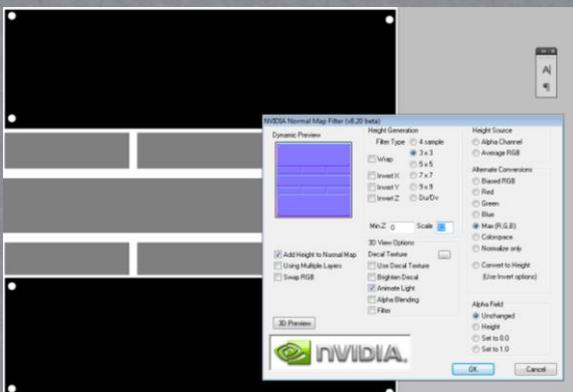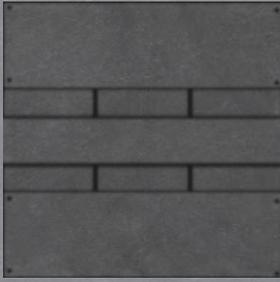

You will probable notice that it is pretty flat, just duplicate the layer, Gaussian blur it and set it to overlay a few times.
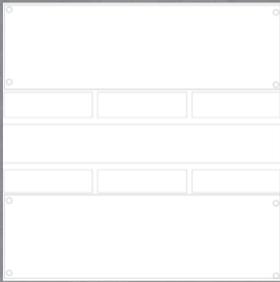

Part 3 creating the diffuse

Get your ao map and set it to multiply over the base metal texture and reduce the opacity to around 65-80 percent.

Now take your normal map and under the channels option uncheck red and green and copy the blue channel onto a new layer. Now make sure all your channels are visible again and take your new layer which should look similar to this:


Now invert it by pressing ctrl + I and set it to screen and reduce the opacity to around 35-45 percent. This has now created edge detection. you can also create a mask and remove parts that show up to much.
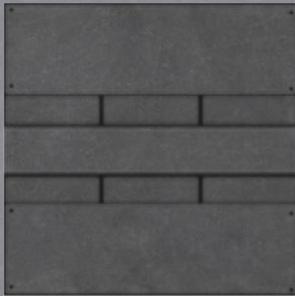
Now create a new layer fill it with white, created a new mask, invert the mask.

You should have a layer that is invisible, now paint with a white scratch bush onto the mask around the edges and corners most likely to get damaged. Reduce the layer opacity down to a level that isn't too intense around 25%.
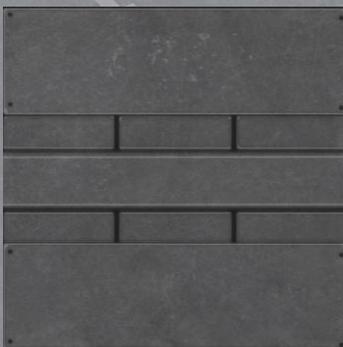
Adding Paint

Now simply select the areas you want to have paint on and fill with a solid colour and set it to colour (at the bottom of the list with multiply, overlay ECT.)

Now to create some wear and tear using the magic wand tool and selecting the base metal with a tolerance of around 12/13 (anything that selects small parts of the image without selecting too much paint) it should have selected most of the image but not all, now select the paint layer and create a mask.

Final result:
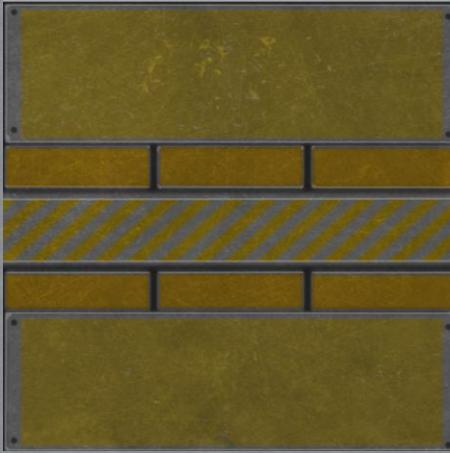
at the end of every diffuse you make add an adjustment levels layer to correct the brightness of your image.

<u>Other examples using this technique:</u>