



Painting Process

1

Color Filtering

We process every pixel in the image through a color filtering routine.

2

Brushstroke Generation

We generate each brushstroke based on the color ranges generated by the filtering routine.

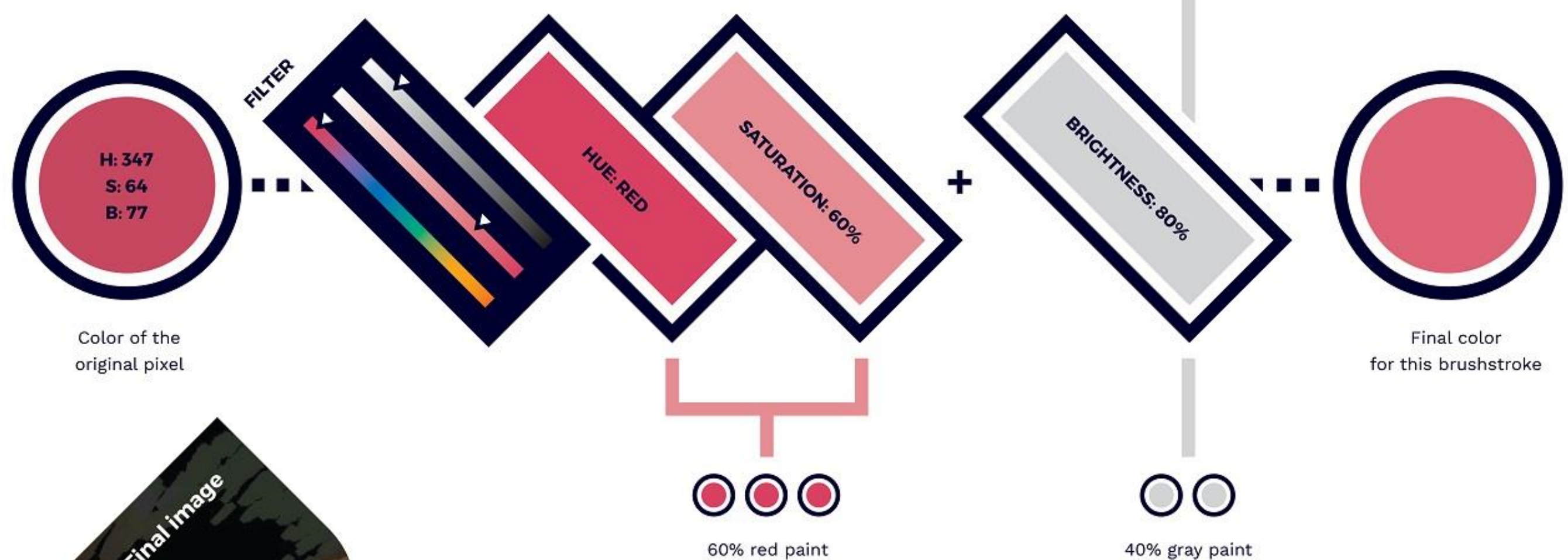
The brushstroke generation routine evaluates clusters of pixels to define the starting and ending positions for the brush.

The maximum length of the brushstroke can be parameterized.

3

Mixing Colors

Using the color ranges and the brushstrokes generated we proceed to mix the colors for each brushstroke.



4

G-Code Generation

```
G40 G17 G80 G50 G90 G00 Z0.1
G2 Y0 X0.15 R0.075 F30 X0 Y0
Y0 X-0.15 R0.075 F30
Y0 X0.3 R0.125 G2 Y0 X0.15 R0.075 F30
Y0 X-0.3 R0.125 Y0 X0.75 R0.075
G00 Z0.1 X1.125 Y0 R1.125
Y-0.375 X0.75 R0.375
G00 Z0.1 X0 Y0
G2 Y0 X0.15 R0.075 F30 Y0 X0.75 R0.075
Y0 X0.75 R0.075 X1.125 Y0 R1.125
Y-0.375 X0.75 R0.375
G01 Z-0.9 F1
```

5

Paint brushstroke

Using the generated G-Code the machine select the appropriate brush to paint each brushstroke into the canvas. This process is repeated for each generated brushstroke until the whole painting is done.

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