

$$F(0,0) = f(0,0) \cdot e^0 + f(0,1) \cdot e^0 + f(0,2) \cdot e^0 \\ + f(1,0) \cdot e^0 + f(1,1) \cdot e^0 + f(1,2) \cdot e^0 \\ + f(2,0) \cdot e^0 + f(2,1) \cdot e^0 + f(2,2) \cdot e^0$$

$$= a + b + c + 0 + 0 + 0 - a - b - c = 0$$

So, DC component of the gradient filter is 0.
~~hence, if we~~ which means removing out
 the average intensity of the image from
 itself. It'll have only high frequency
 components.