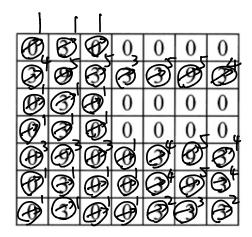
## 

## 

0	3	0	0	0	0	0
3	9	3	3	3	9	3
0	3	0	0	0	0	0
0	3	0	0	0	0	0
0	9	0	0	3	9	3
0	3	0	0	3	9	3
0	3	0	0	3	3	3



(b) median filter

0	3	0	0	0	0	0
3	9	3	3	3	9	3
0	3	0	0	0	0	0
0	3	0	0	0	0	0
0	9	0	0	3	9	3
0	3	0	0	3	9	3
0	3	0	0	3	3	3

		)				
0	3	0	0	0	0	0
3	9	3	3	3	$\mathfrak{G}$	3
0	(A)	0	0	0	0	0
0	(3)	0	0	0	0	0
0	9	0	0	3	(	3
0	3	0	0	3	<b>3</b>	3
0	3	0	0	3	3	3
0	(3) (3)	0	-	3	3	3

(c) g, Dreduce random noise

Dout blur sharp edges, such as vertical line. 92 @ remove "salt-and-pepper" noise

@ preserves edge

3 however, the vertical line is missing

6222 7022-7023
1. (a) filter $h = [\frac{1}{3} \frac{1}{3} \frac{1}{3}]$ 1×3 = $h(1,j) f(x,y-i)$
el jit six six in
6222 $7022 - 5025$ 1. (a) filter $h = \begin{bmatrix} \frac{1}{3} & \frac{1}{3} \end{bmatrix}$ [X3] $g(x,y) = f(x,y) \times h(x,y) = \begin{cases} \frac{5}{3} & \frac{1}{3} \end{bmatrix} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases} \frac{1}{3} & \frac{1}{3} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{3} \end{cases} = \begin{cases}$
1110000
4 5 5 3 45 5 4
g,(x,y) = 1110000
3 3 3 1 4 5 4
1111454
111121321
(b) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5 7 7 7 7
000000
$g_{z}(x,y) = 00000000$
0 0 0 0 2 2 2
0000333
000000000000000000000000000000000000000
$g(x,y) \Rightarrow \text{mean method } g_2(x,y) \Rightarrow \text{median method}$
$g_1(x,y) \Rightarrow mean method g_2(x,y) \Rightarrow median method$
hasing the male harts
horizontal: median better
vertial:  Mean filter 'blurs' the image details. Spread the noise.
Mean filter blurs the image actairs. Spread the noise.
soul felt line and the selection of
Median fifter does not 'blur' the eelge remove the noise
horizontal and a square.
median may remove the noise, lost some features.
mean & contrary.  www.dso.org.sg © @DiscoverDSO

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