

bin = 3

len 50

From 50

Template - desc =  $\begin{matrix} \text{queryIdx}=0 & \text{queryIdx}=1 & \text{queryIdx}=2 \\ \left[ \begin{matrix} 1, 2, 3 \end{matrix} \right], \left[ \begin{matrix} 4, 5, 6 \end{matrix} \right], \left[ \begin{matrix} 7, 8, 9 \end{matrix} \right] \end{matrix}$   $\rightarrow \left[ \begin{matrix} \text{qIdx}, \text{tIdx}, \text{dist} \end{matrix} \right]$

Frame - desc =  $\begin{matrix} \left[ \begin{matrix} 2, 3, 4 \end{matrix} \right], \left[ \begin{matrix} 5, 6, 7 \end{matrix} \right], \left[ \begin{matrix} 8, 9, 10 \end{matrix} \right] \\ \text{trainIdx}=0 \quad \text{trainIdx}=1 \quad \text{trainIdx}=2 \end{matrix}$

BF-match :

نموذج

$$\left[ \begin{matrix} \text{qIdx}=0 \\ \text{tIdx}=0 \\ \hline d = \sqrt{(2-1)^2 + (3-2)^2 + (4-3)^2} = \sqrt{3} = 1.7 \end{matrix} \right.$$

$\left\{ \begin{matrix} \text{qIdx}=1 \\ \text{tIdx}=1 \end{matrix} \right\}, \dots$

Knn match  $\Rightarrow$  ?

$k=2$

template - desc =  $\left[ \overset{gIdx=0}{[1, 2, 3]}, [4, 5, 6], [7, 8, 9] \right]$

Frame - desc =  $\left[ [2, 3, 4], [5, 6, 7], [8, 9, 10], [11, 12, 13] \right]$

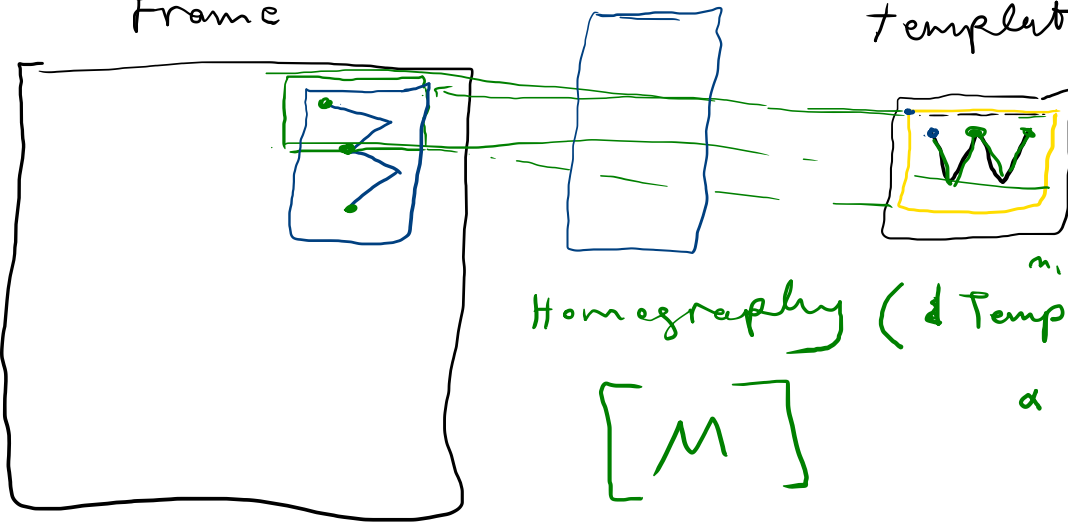
$\left| \begin{array}{l} gIdx=0 \\ tIdx=0 \\ dst = 1.7 \end{array} \right.$

$\left| \begin{array}{l} gIdx=0 \\ tIdx=1 \\ dst = \sqrt{16+16+16} = \sqrt{48} = 7 \end{array} \right.$

$\rightsquigarrow \left[ \overset{m}{[0, 0, 1.7]}, \overset{n}{[0, 1, 7]} \right],$   
 $[1, 1, -], [1, 2, -], \dots$

Frame

template

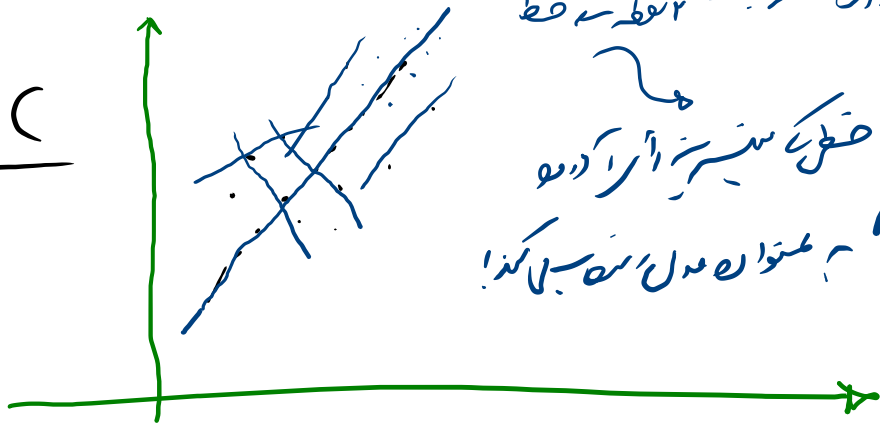


Homography ( $d$  Template,  $m_y$  Frame, RANSAC)

$[M]$

$\alpha \leftarrow \rightarrow \alpha$

RANSAC



نقطه در خط  $\rightarrow$  نقطه در خط

خطی که بیشتر از آن را دربر  
گیرد مستوارترین خط است!