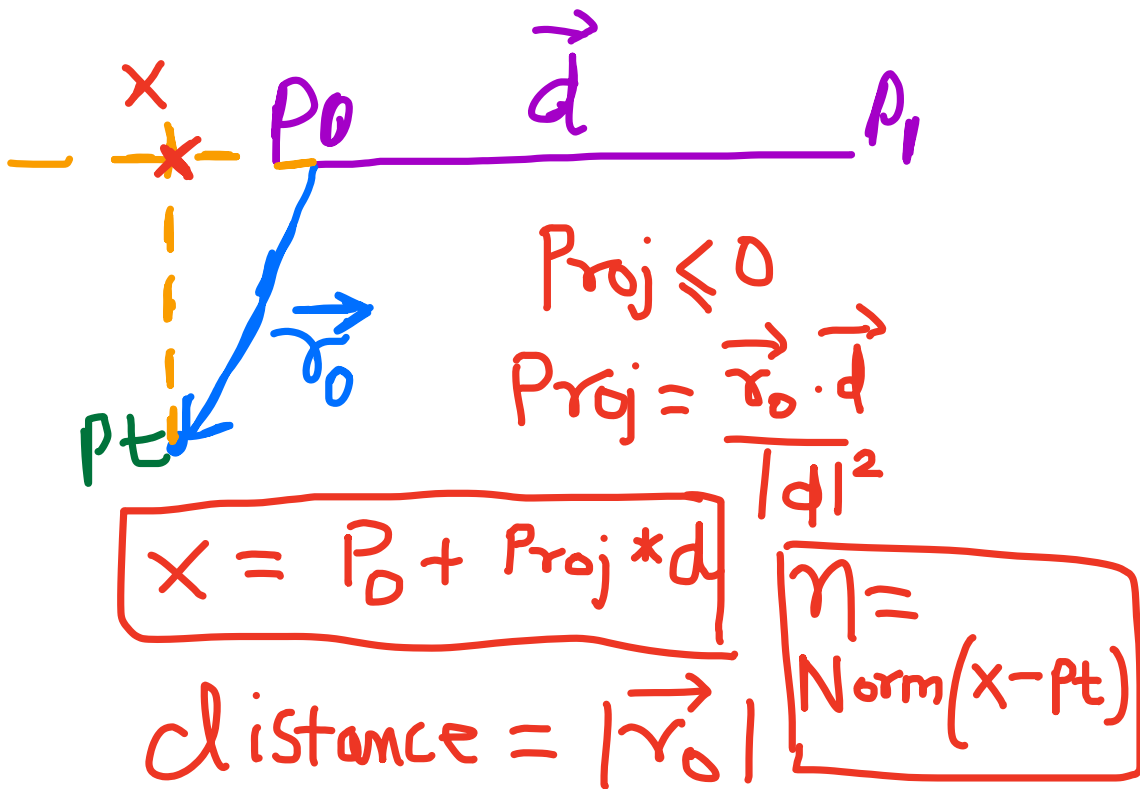
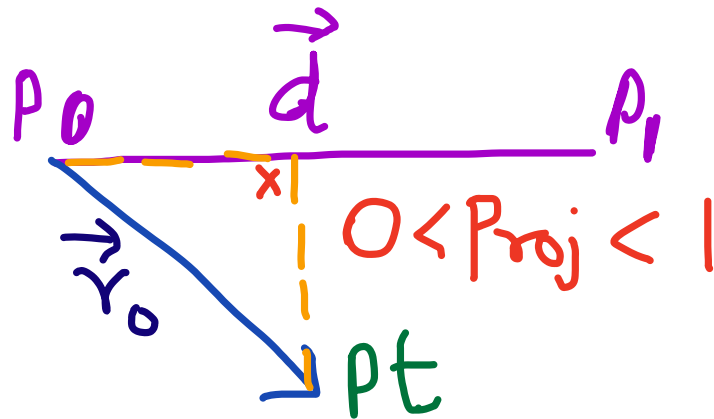


CASE 1



CASE 2



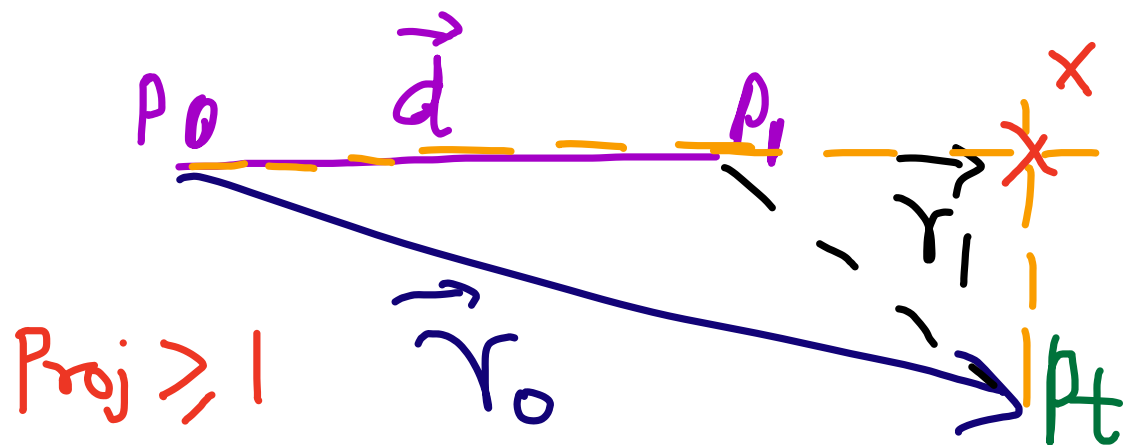
$$\text{Proj} = \frac{\vec{r}_0 \cdot \vec{d}}{|\vec{d}|^2}$$

distance = $|\vec{r}_0|$

$\eta = \text{Norm}(x - P_t)$

$x = P_0 + \text{Proj} * \vec{d}$

CASE 3



$$Proj = \frac{\vec{r}_0 \cdot \vec{d}}{|\vec{d}|^2}$$

distance = $|\vec{r}_1|$

$\eta = \text{Norm}(X - P_t)$

$X = P_0 + Proj * \vec{d}$