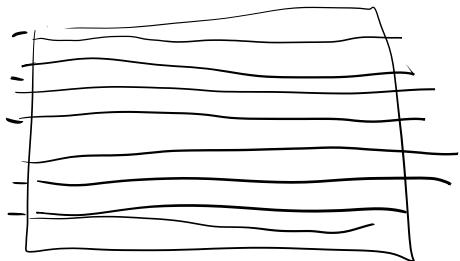


1080p

720i

interlaced



fps

frames per second

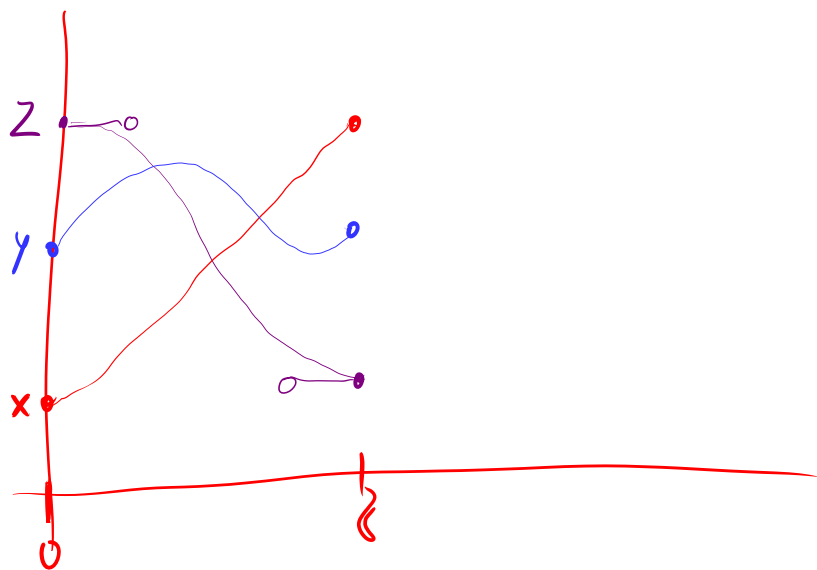
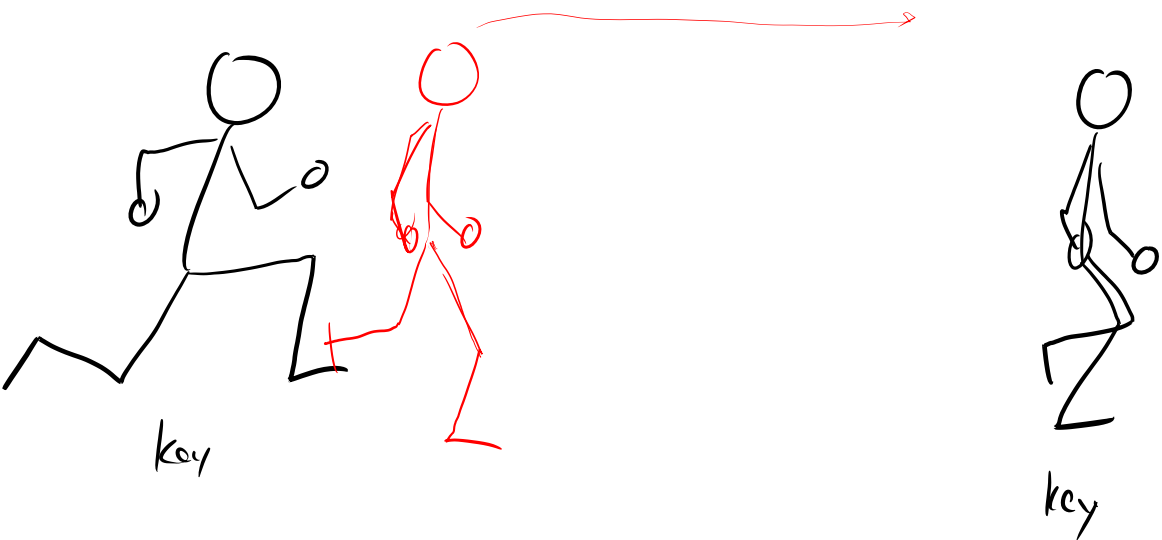
60 - TV, Computer

30 - TV

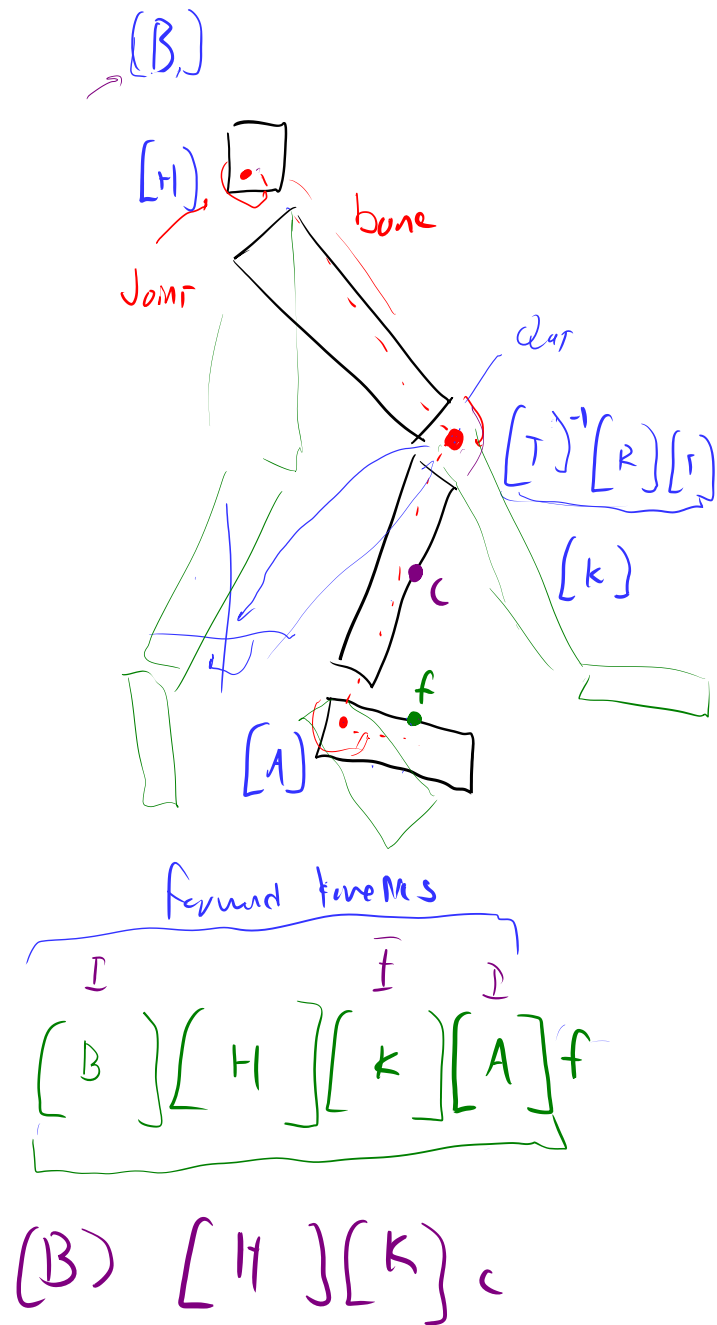
24 - film

12 - cell animation

# be Tweening



Scene graph  
animation hierarchy





cos

$$\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$$

$$\begin{bmatrix} .6 & .8 \\ -.8 & .6 \end{bmatrix}$$

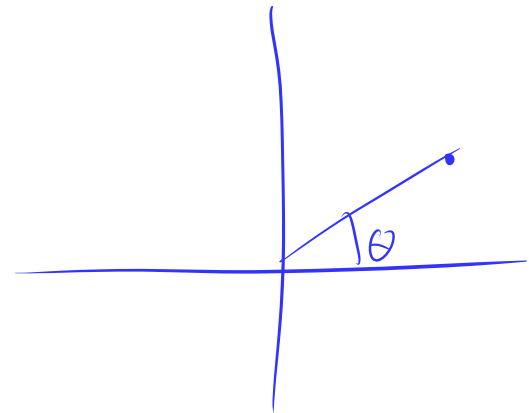
$$\theta$$

$$\begin{bmatrix} .8 & .4 \\ -.4 & .8 \end{bmatrix}$$

$$\theta$$

genera

atan 2 (y, x)



Quaternion

$x + yi$

$$x + yi + zj + wk$$

# Inverse kinematics

Heuristics

IK

