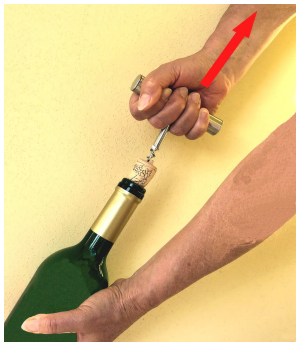
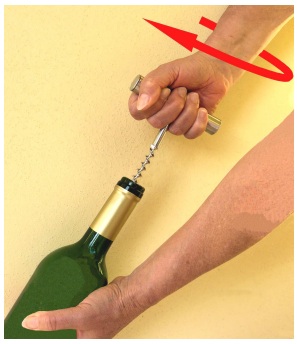
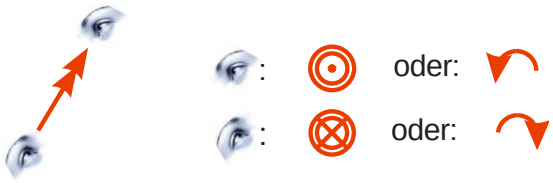
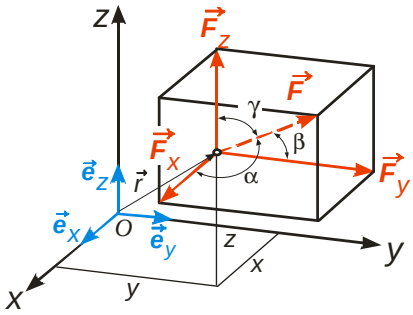
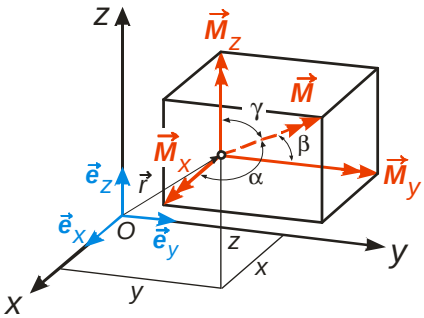
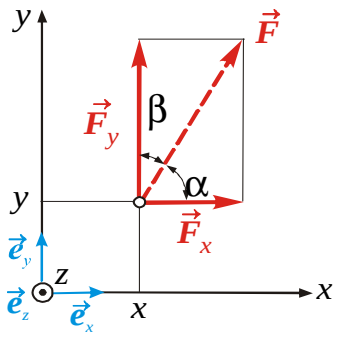
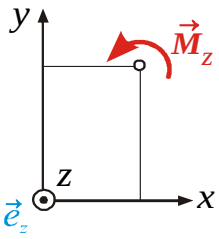
Lasten in der Technischen Mechanik

(Einzel-)Kraft	(Einzel-)Moment
	
	
Verschiebung in Richtung der Kraft bzw. Verschiebungen längs der Koordinatenachsen	Drehung um (Momenten-)Achse bzw. Drehungen um Koordinatenachsen
	
In der Statik Betrachtung als Linienflüchtiger Vektor	In der Statik Betrachtung als Freier Vektor
Räumliches Problem	
	
$\vec{F} = F_x\,\vec{e}_x + F_y\,\vec{e}_y + F_z\,\vec{e}_z$	$\vec{M} = M_x\,\vec{e}_x + M_y\,\vec{e}_y + M_z\,\vec{e}_z$

$F_x = F\cos\alpha$ $F_y = F\cos\beta$ $F_z = F\cos\gamma$	$M_x = M\cos\alpha$ $M_y = M\cos\beta$ $M_z = M\cos\gamma$
$\left\|\vec{F}\right\| = F = \sqrt{F_x^2 + F_y^2 + F_z^2}$	$\left\|\vec{M}\right\| = M = \sqrt{M_x^2 + M_y^2 + M_z^2}$
Ebenes Problem	
	
$\vec{F} = F_x\,\vec{e}_x + F_y\,\vec{e}_y$	$\vec{M} = M_z\,\vec{e}_z$
$F_x = F\cos\alpha$ $F_y = F\cos\beta$	$M_z = M$
$\tan\alpha = \dfrac{F_y}{F_x}$	
$\left\|\vec{F}\right\| = F = \sqrt{F_x^2 + F_y^2}$	$M = M_z$

Misslungenes Vorhaben