

Stefan Bracher

Photo: "Opening a bottle using Torque" by Stefan Bracher

Introduction

Torque



Photo: Stefan Bracher

	M = 300	kg	
20 cm	2.0 m		
	3.0 m		

What is the force in the left support?

Introduction



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Torque

Torque: The ability of a force to turn an object



Photo: Stefan Bracher



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At which angle is the torque greatest?

What else can be done to increase the torque caused by the force?

Examples

Brainstorming: What other applications of torque do you know?



Photo: Stefan Bracher

"Give me a lever long enough and I will move the world"

- Archimedes 287 BC – 212 BC



Online Textbook

 The Second Condition for Equilibrium, OpenStax, "College Physics" http://cnx.org/contents/Ax2007UI@9.94:EarCWIUd@4/The-Second-Condition-for-Equil

Videos

• Bozeman Science, "Torque" https://www.youtube.com/watch?v=5Zrphnd_0VI

Simulations

• Balancing Act, University of Colorado, "Phet Simulations" https://phet.colorado.edu/en/simulation/balancing-act