

## Rotational Stability



**Purpose:** To demonstrate that an object is stable only if the net torque on it is zero, even if the center of gravity is over a support point

**Location:** room 136, shelf N6 (balls located with Leaning Cylinder, shelf M6)

When the balls are placed in the vertical cylinder they exert a torque on it. If the plastic ball is placed on top, this torque will not be enough to overcome the stabilizing reactive torque on the cylinder's center of gravity. If the metal ball is placed on top, and the lid is left off, it will topple. If the lid is placed on top, stability will be restored.

(See enclosed instruction sheet.)