

## Torque Spool



**Purpose:** To demonstrate how the direction of torque depends on the location of the line of force relative to the point of rolling contact (i.e. the right-hand-rule).

**Location:** room 136, shelf N6

When the string is pulled from a high angle (left photo) the line of force passes to the right of the point of rolling contact on the desk, and the spool begins to roll to the left, as expected. But if the string is pulled from a low angle (right photo), so that the line of force passes to the left of the point of rolling contact, the torque will be in the opposite direction and the spool will begin to roll to the right, to the surprise of most. (Practice first.)