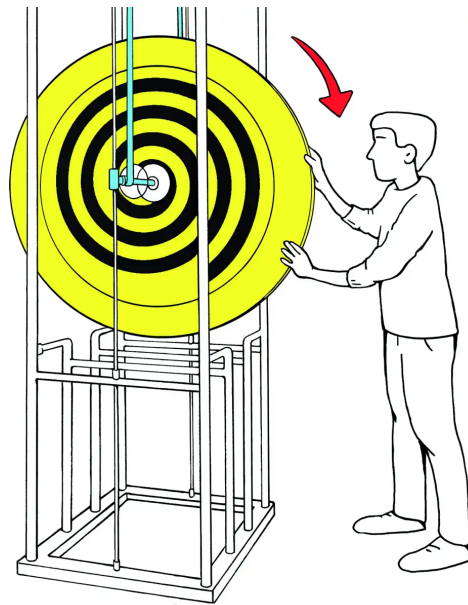


Giant Yo-yo

How does its speed change as time goes by?



Wind the giant yo-yo up.

Do you notice how hard it is?

Watch what happens when you let it go.

How does its speed change as time goes by?

The axle of the yo-yo hangs on two straps which wrap around it as you raise the yo-yo. This is not all that easy – you really need strength! In physics terms, you do work which becomes stored as position (potential) energy as you gradually raise the yo-yo.

When you let it go, under the influence of gravity the yo-yo's potential energy gradually converts into movement (kinetic) energy, reaching a maximum at the bottom of its fall. The reverse occurs while the yo-yo gradually winds itself back up – kinetic energy decreases and potential energy increases.

Since some of the energy transforms into heat and gets lost in the surroundings, the yo-yo does not climb so high at each transformation, so that its maximum height gradually decreases and the movement dies away.